SECTION II: Contents

SECTION II: INVENTORY AND ANALYSIS

A. Summary

The Village of Larchmont and the Unincorporated Area of the Town of Mamaroneck together occupy an attractive but environmentally vulnerable six-square-mile residential area along the Long Island Sound shore of Westchester County -- a highly indented and beautiful coastline totaling some nine miles with pristine views of the Sound, its islands and the far shore of Long Island. Proximity to New York City and the beauty and recreational values of the area have attracted a business and professional population of 17,412, according to the 1992 census. The area supports an economy based on residential real estate and including many retail and service establishments. Although most of the coastline is in private hands, there is access to the shore through private clubs and through public access to shoreline parks and conservation areas.

Additional assets include environmentally significant fish and wildlife habitats (primarily salt and freshwater wetlands) and sites of historical importance and scenic beauty.

These values, and the economy and way of life that depend on them, have already been damaged to some degree, and are further threatened by environmental problems -- chiefly upstream flooding from over developed watersheds with associated siltation and sanitary sewer malfunctions, and adverse impact on streams, wetlands, and fish and wildlife habitats. Siltation in the harbor area also periodically affects boating, a major recreational activity. Other problems include water pollution, which affects public health and sensitive wildlife habitats; occasional coastal flooding during storms and high tides; noise pollution and litter. A further long-range problem is how to assure future protection of places of historic or scenic importance, such as the cherished, tranquil views of the Sound periodically threatened by the possible intrusion of high-rise or other aesthetically insensitive development. There are also concerns about the over use of boating facilities, for example, the addition of inappropriately large marinas clogging up the Sound's waters.

Our geographic situation makes it obvious that many aspects of our community's environmental problems can only be addressed effectively with the aid of intermunicipal cooperation extending throughout the watersheds that terminate in, or transit, our coastal zone. Section I details the scope of the inland Coastal Zone boundary in order to maximize the ability of both municipal governments to deal with these problems. However, since the problems follow geographic rather than political lines, and extend well beyond our political jurisdiction, the solutions can only be found with watershed-wide cooperation. Provision for intermunicipal cooperation, with reinforcing participation by agencies of the State and Westchester County

governments, therefore remains an integral part of our Local Waterfront Revitalization Program.

Awareness of the social-economic, ecological, and institutional resources herein described is essential to an understanding of the problems and possibilities of the Larchmont-Mamaroneck Coastal Zone. Our success or failure in protecting and enhancing the quality of, and promoting access to, the Coastal Zone will go far to determine the economic and demographic future of our community, as well as of nearby communities which share in its economic and recreational life. On the one hand, excessive or poorly regulated development can, and in many ways already does, threaten our waterfront and its resources with flooding and other destructive effects. On the other hand, it is primarily the existence of a highly developed, high-value residential environment, of medium population density and with convenient commercial and transport facilities, that has created a community which desires protection of scenic, ecological and other coastal values and makes these goals possible and a priority. What is needed is a prudent and sustainable balance among ecological, economic and social values and concerns.

B. LWRP: General Description

On June 30, 1986, the governments of the Town of Mamaroneck and the Village of Larchmont, acting jointly, adopted the Town of Mamaroneck-Village of Larchmont Local Waterfront Revitalization Program (LWRP) under New York State's Waterfront Revitalization and Coastal Resources Act of 1981. The LWRP became effective as State coastal policy upon its approval by Secretary of State Gail Shaffer on October 28, 1986. The Office of Ocean and Coastal Resource Management at the National Oceanic and Atmospheric Administration (United States Department of Commerce) concurred with that approval on April 21, 1987. The LWRP was then incorporated into the New York State Coastal Management Program thereby making Federal actions in our coastal area subject to consistency review (see Section V) pursuant to the Waterfront Revitalization and Coastal Resources Act of New York State. State agencies are responsible for determining consistency of their actions with State coastal policies and the LWRP.

As noted in Section I, this LWRP covers the entire Village of Larchmont and the Unincorporated Area of the Town of Mamaroneck. The area covered is bounded on the west by the City of New Rochelle, on the north by the Village of Scarsdale, and on the east by the Town of Harrison and the Village of Mamaroneck. Of the approximately 6 square miles in this bi-municipal area, one square mile including about eight out of nine miles of highly indented coastline, lies within the incorporated Village of Larchmont. The remainder consists of the Unincorporated Area of the Town, which borders the Village on all its inland sides and also includes parts of two ecologically important pieces of shoreline and major parts of the watercourses that drain the area.

Geography and patterns of development link the two municipalities in many ways. The Town-Village borders on both east and west run through ecologically and hydrologically important stream beds and tidal inlets. Several of the municipalities' functions, notably sanitation, the library, Senior Center and conservation, are performed jointly. Town and Village residents share the same school district, post office, telephone exchanges, and public library; many attend the same houses of worship and belong to the same local voluntary organizations. Thus, the entire area shares an interest in the health of the same Coastal Zone.

C. LWRP: Management Structure

At the time of adoption of the LWRP, the Town and Village also created an 11-member bi-municipal Coastal Zone Management Commission (CZMC) to coordinate and monitor implementation of the LWRP (see Section V). The responsibility for implementation not only lies with the Village and Town governments that adopted it, but also with the people whom those governments serve. Involvement of the public is of the essence, since effective local government is necessarily, to a great extent, self-government, which requires a major component of volunteer action and willing compliance with the law. This being the case, the actions called for in this document will continue to require the participation not only of the two municipal governments but also of concerned citizens throughout the Town and Village, both individually and through the organizations in which they work.

The CZMC is required by law (see Section V) to make an Annual Report to the Town and Village Boards on the activities of the Commission, including progress achieved and problems encountered during the year, and recommendations on such actions as the Commission considers necessary for the further implementation of the LWRP. The Annual Reports, therefore, are a resource for expanded information (see Appendix A.). Beginning with the Third Annual Report, background data was compiled as an abbreviated history so that the current year's actions and discussions could be weighed in the context of past years. That format also highlights the ongoing nature of CZMC considerations, and places what has been accomplished in the context of what remains to be done. Consistency Referrals (see Consistency law in Section V) from the inception of the CZMC on June 30, 1986 to date are found in the latest Annual Report.

D. Physical Geography

Geologically, the area is part of the Manhattan Prong, the southernmost portion of the New England upland geological province. The effects of differential weathering on the underlying rock structure and of glaciation make for great topographical variety and scenic beauty, with hills and streams running down to a sound shore made up of numerous small bays, inlets and promontories. This advantage, however,

is partly offset by environmental drawbacks. In many places, the underlying rock is near the surface thus limiting the capacity of the ground to absorb water and thereby contributing to problems of flooding and siltation. At other locations, former lakes, streams and marshes are buried by today's parks where water absorption is limited, such as at Pine Brook Park and Fountain Square. Flooding and siltation are serious problems for our community, most of which is drained by the Pine Brook, Sheldrake, and East Creek-Gut Creek watersheds flowing through such rocky strata for much of their length.[1]

The two municipalities also lie less than 20 miles from the East River on the shores of the Western Narrows of Long Island Sound. The naturally sluggish tidal flushing action of the Western Narrows, exacerbated by excessive nitrogen flows caused by overdevelopment, polluted stormwater runoff and inadequate sewage treatment have combined to create an area in the Western Narrows where the water is plagued with the lowest dissolved oxygen counts (hypoxia) of the Sound, as reported by the federally funded Long Island Sound Study of 1992 (see Part V of this Section). The Hempstead Sill, a shoal extending from the mouth of Hempstead Harbor (directly across the Sound from Larchmont) to the New York-Connecticut border causes an even more narrow and shallow water area, 30 feet and less in depth, further restricting tidal action and significantly contributing to the polluted water of the Western Narrows.

E. Economy

The dominant business in both Larchmont and the Unincorporated Area is residential real estate. There is almost no manufacturing, and the commercial enterprises in the area exist mainly to serve local or nearby residents.

The area's residential value lies not only in its ready access to New York City -- as well as to a widening array of suburban business, commercial and cultural centers -- by both road and rail, but also in its physical beauty and the amenities and recreational advantages of its coastal location. Our economic geography is likewise a mixed blessing. Our location in a great metropolitan region -- with a railroad and two interstate highways crossing our community, four large airports nearby (one major one being just across the Sound), and substantial small industry and commercial water traffic along the nearby Sound shore -- brings us important economic benefits; indeed, it is the basic source of employment for our residents. But this location also brings environmental drawbacks: pollution of water, air and soil

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[1] **These three watersheds are the focus of drainage-related problems discussed in Part U Watershed Management. As the drainage boundaries shown on Map 1 make clear, a fourth watershed, that of the Mamaroneck River, drains an area of about 1 square mile in the northeastern portion of the Town, about half of it consisting of a part of the Saxon Woods County Park. Immediately downstream from this area is the Village of Mamaroneck, which has chronic problems of residential flooding in this watershed during rainy periods.**

by aircraft, vehicular and industrial wastes; noise pollution; and the flooding and other evils that result from residential overbuilding.

Personal incomes vary over a wide range. The median household income is about $74,000 annually. The resulting high residential real estate values, and the ancillary professional and business (mainly retail) establishments, provide tax support for a high-quality public school system and efficient municipal services.

The residential development of Larchmont and the Unincorporated Area (most of which lies within the Larchmont postal district, zip code 10538) has proceeded steadily since the late 19th century. Development of Larchmont Village took place primarily before World War II, while that of the Unincorporated Area continued thereafter, in both cases with subdivision of large properties into single-family homes and construction of several apartment houses near the major east-west thoroughfares. The population of the area grew from 14,500 in 1940 to about 20,000 in 1970. Of the latter number, about 7,000 lived in the Village. Today's population is approximately 17,400 with 6,180 in the Village. This stabilization underlines a fact of major importance for local planning, namely, that property in the area is already almost fully developed except for the existing parks, golf courses, and conservation areas described below. Overbuilding in recent decades, both in our community and in those upstream, has caused some of our most serious problems -- natural habitat reduction, flooding, siltation, pollution and malfunction of overloaded sanitary sewers -- which threaten the beauty and integrity of the coastal zone on which the community's property values, economy, and ecology all heavily depend. Development in upstream communities (see Part U of this Section) continues to exert new pressure on stormwater drainage in our community and in the Long Island Sound (see Section V for local controls concerning stormwater runoff).

F. Historic Buildings

Our community's resources include a considerable number of sites of historic and/or scenic value. Many such sites in the area deserve official protection, the absence of which may increase the likelihood of future actions needlessly damaging to historical and scenic values in this area.

Although no systematic survey has been made of historical and archaeological sites (see Part G) in this area[2], the Village and the Unincorporated Area have many sites of historical, architectural, and cultural interest, including a score or more of private houses a century or more old, a few of these date from the Federal period and many from late Victorian times. Some formal survey work was done in the Village in 1982

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2 **In November 1993, the Larchmont Historical Society received a $5,000. grant from the Smart Family Foundation Inc. for a reconnaissance level historical sites survey of the Larchmont Postal District. This work is to begin in 1994.**

by the Westchester County Division of Housing and Community Development Department when they conducted a survey of Larchmont's business district. In addition, the histories of approximately thirty houses were researched and documented in conjunction with house tours sponsored by the Larchmont Historical Society. Westchester County, New York: Colonial to Contemporary by Frank E. Sanchis was published in 1977 after a county-wide architectural survey recording over 2500 buildings. Larchmont, which represents a small geographic percentage of Westchester County, was considered to possess a large number of buildings considered architecturally significant within the context of the County as a whole. Numerous illustrations of Larchmont's residential and civic buildings can be found in the book.

The oldest surviving structure in the area is a private house at 4 Pryer Manor Road, built in 1775 on the site of an earlier mill house. It has been recognized by the Daughters of the American Revolution as a historical landmark, as has the Larchmont Public Library, built on the site of the original Samuel Palmer house. The Manor House, built in 1790 for Peter Jay Munro, still stands at the head of Prospect Avenue. Beside the Post Road outside Larchmont's municipal building is a milestone bearing the carved inscription "21 miles from New York", erected in 1804 along what was then the Westchester Turnpike and is now U.S. 1. Nearby are two small cemeteries of early date, one of them established by Quakers in the early 18th century -- the oldest known relic of European habitation in our community.

The house at 86 Weaver Street, now a private residence, was built prior to 1808 to house the first public school in the Town of Mamaroneck, organized under the New York State public education law of 1795.

Many structures of late 19th century vintage are in a neighborhood known locally as The Manor. It is defined by Town of Mamaroneck Map 610, the area once owned by the Larchmont Manor Company, predecessor of the incorporated Village of Larchmont. In addition to private residences, notable structures in this area include the clubhouse of the Larchmont Yacht Club, built in the 1880's, a remarkable show piece of late Victorian design; and Fountain Square in Larchmont Manor, turned over to the Larchmont Manor Park Society in 1892 and redesigned by Larchmont architect Walter C. Hunting. It is a distinguished landmark and was once the center of the incorporated Village of Larchmont. The Larchmont Manor Inn, opened in The Manor in 1893, two years after the Village was incorporated, has been nominated for listing on the National Historic Register.

Two books recording the Village's past were published in 1991 in honor of the Village of Larchmont's Centennial, Larchmont, N.Y.: People and Places Pre-History to 1892 by Judith Doolin Spikes and the Larchmont Official Centennial Edition.

G. Archaeological Sites

It is believed likely that traces of post-Revolutionary building sites remain on the Mamaroneck side of the Larchmont Reservoir property. This possibility is being investigated. Three quarry sites have also been identified at the Reservoir property. In addition, the Reservoir was the site of a saw mill, grain mill and ice-harvesting business.

Some other sites in the area bear traces of prehistoric American Indian habitation. Indians are believed to have built a weir at the site of the present Premium Mill Pond dam, which itself dates from 1801. A south-facing rocky cave adjacent to Pine Brook Park may have been used by Indians as a blind for hunting animals. Some large erratic boulders in the area, including the one that gave Rockingstone Avenue its name, are believed to have been places of Indian worship.

Phase I Archaeological Reconnaissance Surveys were conducted on two properties in Larchmont Manor in 1989 and 1990, one on Park Avenue opposite Larchmont Harbor and the other at Fountain Square, both prior to development. While the archaeologist's report traced the area's history back to prehistoric times, no meaningful artifacts were recovered and no further investigations were recommended.

H. Scenic Resources

Numerous sites and views contribute significantly to the scenic quality of the coastal zone. They include upland sites not visible from the shore, e.g., Fountain Square, Memorial (Station) Park, the Sheldrake River and Leatherstocking Trail Conservation area, the Larchmont Reservoir Conservancy, the three local golf courses (Bonnie Briar, Winged Foot, and Hampshire), and the Brookside Drive-Gardens Lake area.

The shoreline from the Premium River, Mill Pond and peninsula east to Flint Park on East Creek is primarily a low density residential area consisting of homes of fine architectural or historical significance, is well landscaped, and provides pleasing and interesting views of the shoreline and from the water to the shore. The Premium Mill Pond area, Manor Park, Flint Park, the Hommocks Marsh and the area's associated wetlands and open surface waters provide natural feature areas with a high degree of interesting line, texture and mass, provided by upland and wetland vegetation, the intersection of the rocky and vegetated shoreline with open waters, and the slope of land to the water's edge. Solid metamorphic rocks and sandy beaches skirt the shoreline. Native vegetation includes lush wetland marsh grasses, low trees and shrubs, as well as large deciduous trees, set back from the shoreline, which provide enclosure canopies when viewing the shore a short distance from the water's edge. The Premium River and Mill Pond comprise a protected and relatively

undisturbed region offering welcome relief from surrounding developed and urbanized areas.

Viewer interest in shoreline characteristics, natural features, the foreground, middle ground and background changes depending upon the location and position of the viewer from various areas along roadways, from within Manor and Flint Parks, along the shoreline itself, and the elevation of the viewer in relation to the shoreline. The combined elements of rocky outcroppings, open water, wetland vegetation, and shoreline trees and shrubs result in a visually pleasing and high quality view from, along, and to the shoreline. Important vistas of and from the shoreline within this area are primarily from Park Avenue near Manor Park looking towards Long Island Sound, from Walnut and Bay Avenues looking toward the Sound, and from the Pryer Manor Bridge looking at the Premium River or looking across the Mill Pond to the Sound.

One must be mindful of the impact of development on the quality and character of life on the Sound coast. General standards are required on a regional basis to safeguard the view from the water to land and land to water, to protect specific significant structures and landscapes, and to protect community scale and character.

I. Public Access

The bulk of the Long Island Sound shoreline in our community, including tidal estuaries and inlets, is privately owned either by homeowners or by private clubs and associations, to which many Village and Town residents belong. However, a significant amount of public property, and one uniquely important private park, are open to the public, as follows (see Map 4 Existing Open Space):

1. The Larchmont Manor Park (12.65 acres) winds along a twisting half mile of indented shore from Umbrella Point westward to, and including, Horseshoe Harbor. It is one of the great beauty spots of the Westchester shore. From its various promontories, a panoramic view of the Sound unfolds of sky and water and low-lying greenery in ever-changing hues and configurations as the weather and the seasons shift. It has been owned and maintained since its establishment by the Larchmont Manor Park Society, whose enlightened volunteer management has preserved the park for more than a century as an asset for the whole community.

   The Larchmont Manor Park Society is a nonprofit corporation whose membership is limited to residents of a designated area (Map 610) south of the Boston Post Road. Under a deed to the Society in 1892, the right to use the park is limited to residents of Map 610, their households and guests; however, the society has also invited access to the park by residents outside that area, subject only to rules designed principally to preserve the park's

peaceful atmosphere, beauty, and fragile environment (its soil is shallow and has occasionally suffered from overuse). The boathouse in Horseshoe Harbor, recently rebuilt after a fire, is managed for the Society by the Horseshoe Harbor Yacht Club.

The Society itself manages the adjoining beach and swimming facilities, providing access and bathhouse space to Larchmont Village residents, first come first served, for a seasonal fee, and recently to Town residents of Larchmont postal district zip code 10538, subject to availability.

The larger, landscaped portion of the park is used for passive recreation only. Over the decades the Society, at its own expense, has erected seawalls and planted and maintained lawns and trees to preserve and maintain the park's appearance. The Horseshoe Harbor Yacht Club has conducted dredging operations three times in the past 30 years to maintain the needed depth for boats in Horseshoe Harbor.

The Manor Park is artfully landscaped and adorned with stately trees, three gazebos overlooking the Sound, broad lawns, wild thickets and winding walks, and a spectacular formation of ancient metamorphic rock skirting the shore. Flanked by the unspoiled tree-lined silhouettes of City Island, Pine Island, Davids Island and Huckleberry Island to the south, it commands a sweeping view of Long Island Sound and the Long Island shore opposite, the trees, bays and inlets of the Queens and Nassau County shorelines with the tips of Lloyds Point and Eton's Neck to the east, the last sight of land before the view is one of only open water. Manor Park is an important resource for natural history education and a favorite place for strolling and for watching the sailing and racing activity centered on the Larchmont Yacht Club nearby.

2. Village of Larchmont Property: Flint Park, the largest, as well as Pine Brook, Lorenzen and Woodbine Parks, all touch the waterfront or streams near it. The total park area of about 37 acres is mainly accounted for by Flint Park (27 acres). Its mostly level ground contains tennis and paddle tennis courts and playing fields for baseball and youth soccer. It is a key facility in the Village's recreational life. It is also the site of a small building, known as "The Play House", used for meetings and cultural events. Its use for public access to the shoreline for passive recreation, however, is impaired by the location of a Village leaf disposal facility. The Village has worked diligently to improve the leaf disposal site located at the south end of Flint Park.

It should also be noted that the dead ends of several Village streets abut the waterfront or the Premium estuary. In addition, the easternmost 50 feet of Premium Point, just inside the Village of Larchmont border, is unimproved Village property totaling about 0. 1 acre. The use of this area for public

recreation has been considered from time to time, but, as is noted later in this inventory, there are many drawbacks to such use. (Also see Part N at 4.)

3. Town of Mamaroneck Property: Two important waterfront areas are Town property under the management of the Conservation Advisory Commission. These are the 5-acre Hommocks Conservation Area, most of which lies in the Town (the rest is in the Village of Mamaroneck) and the 10-acre Premium River Conservation Area. Both include tidal wetlands with well-rooted marsh grasses which function as important wildlife habitats and, through their water-retention capacity, retard erosion in the tidal estuaries. Both are open to the public for passive recreation, with woodchipped walk trails and dry ground and catwalks and foot bridges in marshy areas. The Premium Conservation Area recently received a face-lift when its entranceway was enhanced with plantings indigenous to an upland tidal wetland provided by a grant from the National Small Business Administration, administered by the Department of Environmental Conservation, and two local organizations. However, as discussed in Part U, both the Hommocks and the Premium have chronic siltation and pollution problems.

   In addition, the south end of the 12.5 acre Hommocks athletic field abuts the Hommocks Marsh and Little Harbor Sound. The field is owned by the Town, and its use is shared by the Town Recreation Department and the Board of Education whose property to the north of the field is the site of the Hommocks Middle School. The field was built on a sanitary landfill in the 1960's and early 1970's which buried the lower ends of East Creek and Gut Creek in culverts. The 900 foot above-ground section of East Creek runs approximately along the Town-Village border. Defects in covering, grading, and seeding remain.

J. Open Space

In the watersheds along the highly developed Westchester shore, open space serves several major purposes including wildlife habitat, recreation, aesthetic values, and of special importance in this area, improvement of air quality caused by water exchange, and flood control by absorbing and retarding runoff in wet weather. Three jurisdictional categories of open space are involved, totaling about 722 acres. These figures do not include 187 acres of parkland in the northeast corner of the Town, which form part of the County-owned Saxon Woods Park (see Map 4).

1. Within the Village of Larchmont, open space includes 34 acres of public parks; the 12.65-acre privately owned Larchmont Manor Park; and 17 waterfront acres occupied by the Larchmont Yacht Club and the Larchmont Shore Club -- a total of about 64 acres.

2. Within the Unincorporated Area of the Town, open space totals approximately 589 acres, as follows:

   a. About 109 acres of Town-owned parks and conservation areas, namely: the Sheldrake River and Leatherstocking Trails, Hommocks and Premium River Conservation Areas; the handsomely landscaped Memorial Park; the Gardens Lake; and the Hommocks playing field. In September 1983 all these open spaces were formally dedicated by the Town for parks and recreational use.

   b. The 12.76-acre Larchmont Reservoir Conservation Area, consisting of that portion of the Larchmont Reservoir - James G. Johnson Jr. Conservancy lying within the Town of Mamaroneck.

      The unique status of the 60-acre Larchmont Reservoir - James G. Johnson, Jr. Conservancy, calls for further comment. It is owned by the Village of Larchmont, located partly in the Unincorporated Area, (12.76 acres) with the remainder in the City of New Rochelle. In October 1984, this property was dedicated in perpetuity by the Village for specified public purposes including conservation, nature study, wildlife preserve, flood control, standby water supply, and environmental and historical education. Since late 1975, when the Reservoir ceased to serve as the Village's regular water supply, the property, with the concurrence of the Village, has been maintained as a conservation area and flood control facility by the Conservation Advisory Commission and the Town of Mamaroneck conservation staff, with additional support since 1981 from the Friends of the Reservoir, Inc., a private nonprofit organization. Following the dedication of the property, the Village's oversight of these arrangements has been strengthened by creation of the Village of Larchmont Reservoir Committee, which makes recommendations to the Village Board on policy and projects relating to the property and works with the above bodies in the initiation and review of proposals concerning it. In 1993, the National Institute for Urban Wildlife certified the Larchmont Reservoir as an "Urban Wildlife Sanctuary" noting that it had met all of the Institute's wildlife habitat and management criteria, including such items as natural food availability on a seasonal basis, water being present all year 'round and adequate living space with vegetated corridors extending from the property.

   c. Two large private golf courses and part of a third, totaling 428 acres. The Bonnie Briar and Winged Foot golf clubs are in northern part of the Town. A 6.74-acre portion of the Hampshire Country Club golf

course extends west from the Village of Mamaroneck into the unincorporated area near the Hommocks Conservation Area.

d. About 40 acres of large residential tracts with development potential lying between the Bonnie Briar and Winged Foot golf clubs.

This list is by no means conclusive. The Conservation Advisory Commission has been charged with the responsibility for maintaining an inventory of open spaces.

K. Recreation

Recreational facilities, part public and part private, are substantial for both active and passive recreation, much of it water-dependent or water-enhanced. Many of these facilities, because of their size and location, also have great environmental importance as absorbers of flood waters and as wildlife habitats. Their recreational uses can be summed up as follows:

1. Active Land Sports: In addition to the facilities of the Mamaroneck school system, active sport facilities for adults and children include public baseball and soccer fields, chiefly in Flint Park; a public indoor ice rink next to Hommocks School; tennis and paddle tennis courts in Flint Park, the Town's Memorial (Station) Park, and private clubs; and three private golf clubs, two of them wholly and one partly within the Town.

2. Water-Dependent Sports:

   As befits a coastal community, water-dependent sports are well developed, for example:

   a. Boating: On the Larchmont shoreline are two yacht clubs, the Larchmont Yacht Club (11 acres) and the Horseshoe Harbor Yacht Club which uses the Larchmont Manor Park Society's boathouse in the Manor Park. Their combined fleets of sail and motor craft number over 450, and provide recreation to thousands of residents. In addition, a few members of the Larchmont Shore Club (6 acres) moor their boats in club waters, and numerous boats are docked or moored at private residences along the shore. The Larchmont Yacht Club has made Larchmont famous as one of the most important yachting centers on the American east coast, increasing the attractiveness of this area as a place of residence for sailing enthusiasts. The area is also a market for a considerable nearby industry, especially in the Village of Mamaroneck and in New Rochelle, devoted to yacht building, sailing, maintenance and supply.

There are no public boating facilities along the shoreline in Larchmont or the Unincorporated Area of the Town of Mamaroneck. Some residents keep their boats at the Village of Mamaroneck facility in Harbor Island nearby, although it has a long waiting list and charges a substantially higher fee for nonresidents. (Also see Part U.5.)

b. Swimming: Facilities include the indoor Hommocks swimming pool, shared between the school system and the Town, and open to the public; an open-air County swimming pool in Saxon Woods Park; another Westchester County facility, Rye Playland and, as previously mentioned (see Part I), bathhouse facilities at the Manor Park Society's Manor Beach. Homeowners in the adjoining Map 610 area have priority rights in this facility, but the Manor Park Society makes room for hundreds of other Village and Town residents for a season fee, first come first served. Up to 750 families have shared this facility in some recent years. In addition, the Shore Club and the Yacht Club have private beaches for members. No public outdoor swimming facility exists along the shore, but such facilities are available, at higher fees than for residents, in nearby Sound shore municipalities including the Village of Mamaroneck and New Rochelle. A chronic problem affecting all Sound shore swimming in recent years is the pollution of coastal waters by raw sewage after heavy rains because of infiltration of storm water into the sanitary system thus causing bypassing of the sewage plant which in turn frequently causes the closing of nearby beaches by order of the County Health Department.

c. Fishing: Both local and deep-water fishing is done in the Sound by many boat owners in the area. In addition, there is some fishing from the shore at private residences and, subject to municipal regulation, on public property. Restoration of shellfishing along the Sound shore, for recreational as well as commercial purposes, will depend on future steps to upgrade water quality.

3. Passive Recreation: Much of the so-called passive recreation in parks and conservation areas -- walking, birding, sketching, painting, photography, nature study, etc. -- is enhanced by bodies of salt or fresh water and is in that sense water-related. The scenic beauty of the Larchmont Manor Park makes it a favorite public strolling place. For birders and students of ecology, the Premium and Hommocks Conservation areas, and on a smaller scale Horseshoe Harbor, incubate abundant fish, shellfish, and crustaceans and are nesting and feeding grounds for many species of waterfowl and shore birds. Farther inland, the Sheldrake and Leatherstocking Conservation areas (total 55 acres) and the 60-acre Larchmont Reservoir Conservancy all contain

undisturbed woodland with a varied topography of open water, wetlands, and rocky heights, the habitats of abundant wildlife.

4. Possibilities and Limits: As has already been made clear, this area has extensive resources for water-related recreation, both active and passive. Private shoreline facilities for boating and swimming are enjoyed by many residents, and are used at or close to capacity. It is widely realized that possibilities for wider public access to boating and swimming along this part of the Sound shore are limited by the nature of the shoreline and its ownership.

Attempts in recent years to establish Village of Larchmont facilities for small boats, windsurfers, etc. in Little Harbor Sound at the foot of Flint Park, or at the dead ends of Beach and Magnolia Avenues were abandoned as impractical. The Village has determined that Little Harbor Sound, the dead-ends at Beach, Walnut and Magnolia Avenues and an unimproved beach lot at the east end of Premium Point (one of the finest intertidal areas along the Sound shore) are out-of-the-way locations hard to supervise and police, with difficult physical access and limited parking possibilities.

In sum, the potential of existing public properties for creating new recreational facilities is very limited. If either municipality should in the future acquire, or obtain the use of, property on or near the shore other than what they now own, the adaptation of such property for public recreational use would be desirable but would require careful weighing of relevant factors such as public demand, costs, environmental impact, and effect on the residential neighborhood.

Facilities for so-called passive recreation are more plentiful: birding and nature walks in the Town conservation areas and the Manor Park. Optimum use of the Premium Conservation Area for these purposes, however, will require more maintenance and community support. A potential also exists for creating additional small areas for passive recreation at the south end of Flint Park and along the open section of East Creek, as noted above in discussion of that area.

The importance of these public and private recreational resources, both in maintaining the quality of life in our community and in sustaining its economy, cannot be overstated. Whatever impairs or degrades or needlessly restricts recreational opportunities -- such as a ban on swimming at times of severe water pollution, or silting up of navigational channels, or unnecessarily limited public access, or littering and vandalism in parks and conservation areas -- tends to lower the quality of life, and makes the area a less desirable

place to live. A major aim of this Program must be to prevent such conditions from arising and to correct them where they exist.

L. Living Resources

Our land and waters nourish a wide diversity of fish and wildlife.[3] Bird species are especially numerous owing to our coastal location and our transitional climate pattern caused in part by the meeting of the Labrador Current and the Gulf Stream. Birds, both resident and migratory, and land animals find food and shelter in the wide variety of trees, shrubs, lawns and rocky structures on private land and suburban streets, and in the more protected open space of our parks and conservation areas. Fish, shellfish, crustaceans, amphibians, and reptiles breed in the nutrient-rich ponds, salt marshes and watercourses, providing food for gulls, shore birds, winter-sheltering ducks, geese, and swans, and land animals, as well as some recreational fishing. (See Part M- Significant Coastal Fish and Wildlife Habitat and Part N- Locally Important Fish and Wildlife Habitats of this section for details.)

A 1991 report entitled Northeast Coastal Areas Study: Significant Coastal Habitats of Southern New England and Portions of Long Island, New York prepared by Joseph J. Dowhan of the U.S. Fish and Wildlife Service includes the Premium River Complex as part of "The Narrows Complex" or the westernmost part of Long Island Sound between Hell Gate and the Hempstead Sill to the New York-Connecticut boundary. The report sees habitats in this region to be linked, or potentially so.

> Described are two major subcomplexes joined together by the waters of the Sound and ecologically linked with one another: 1) the Northern Bays (Little Neck and Manhasset Bays and Hempstead Harbor) and the immediate nearshore waters of Long Island Sound; and 2) the Mainland Coastline, with its several small offshore islands, mainland wetlands and nearshore waters, bays and coves. The Mainland Coastline extends from Eastchester Bay and the Throgs Neck Bridge in New York eastward to Greenwich Cove in Greenwich, Connecticut.
>
> Included within this subcomplex are the following Significant Habitat sites: Greenwich Cove, Cos Cob Harbor, and Great Captain Island in Connecticut; Playland Lake and Manursing Island Flats and the Marshlands Conservancy at Maries Neck/Milton Harbor, Rye; the Premium River-Pine Brook Wetlands in Larchmont, Mamaroneck and New Rochelle; Huckleberry Island-Davids Island in New Rochelle; and Pelham Bay Park in New York. (Also included in this subcomplex are South and North Brother Islands, just west of Rikers Island near the western boundary of The Narrows, approximately 6 linear miles (10 km) west of the core area.)

[3] **See Wildlife Inventories in Appendix B.**

These areas may appear discontinuous and remote from each other, but based on the U.S. Fish and Wildlife study and others, there appears to be a natural connection between them (for example, a connection between the wading colonial bird rookeries of The Narrows and western Long Island Sound in Connecticut).

Development in recent years has impacted the region's wildlife in numerous ways: for example, with the reduction of habitat diversity, relatively adaptable species have flourished (crows, raccoons, and skunks) while more sensitive species have declined. As will be noted, inappropriate or careless development poses serious threats to many of the valued species that breed and thrive in our area.

This threat is especially significant in two saltwater wetlands located in the Premium and Hommocks Conservation Areas and in the freshwater wetlands areas in the Larchmont Reservoir-Sheldrake-Leatherstocking Complex. Largely because of the importance of salt marshes as spawning grounds for fish and other aquatic species, the Premium and Hommocks were designated locally over a decade ago as conservation areas under the jurisdiction of the Conservation Advisory Commission; but this status cannot fully protect them from environmental damage -- in fact, they have already been substantially damaged by siltation, erosion, and pollution. Because of their ecological value, these areas were designated "locally important fish and wildlife habitats" (see parts M and N of this Section).

M. Significant Coastal Fish and Wildlife Habitat

This narrative describes the Premium River-Pine Brook Wetlands Complex which was designated a Significant Coastal Fish and Wildlife Habitat by the NYS Secretary of State on November 15, 1987. This area is also identified in the LWRP as a Locally Important Habitat of regional importance, which led to its State designation.

The Premium River-Pine Brook Wetlands Complex is tributary to Long Island Sound in the Town of Mamaroneck, the City of New Rochelle[4] and the Village of Larchmont, Westchester County (7.5' Quadrangle: Mount Vernon, N.Y.). The fish and wildlife habitat is an approximately 65 acre area including Pine Brook south of the Boston Post Road, the Premium River, Premium Mill Pond, the northeast portion of Echo Bay, Pryer Manor Marsh, a former wetland between Dillon Road and Emerson Avenue, salt marsh areas adjacent to the river and creek and small portions of adjacent meadow. The land area bordering the wetlands complex is predominantly moderate density residential and commercial. Several town and village owned parklands including the Premium River Conservation Area, Woodbine Park, Kane Park, and Lorenzen Park are part of the habitat area.

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[4] **Adverse impacts on the Premium Marsh and the need for intermunicipal action to restore and protect it are discussed in some detail on pages 43-47 of the "Local Coastal Management Program" published in 1980 by the City of New Rochelle Department of Development.**

The portion of the habitat area within Mamaroneck and Larchmont was designated a Critical Environmental Area pursuant to the State Environmental Quality Review Act (see Part N below).

The Premium River - Pine Brook Wetlands area is a diverse and relatively undeveloped complex of tidal river, tidal flats, shallows, salt marsh and freshwater wetlands which is unusual in Westchester County. Although adjacent and upstream developments and water pollution have degraded this area, the wetlands remain undeveloped and the range of natural communities in this area support a diversity of fish and wildlife species. Local efforts are underway to preserve, maintain and restore the wetlands. As an initial step, the Department of State funded the development of a wetland restoration and management feasibility study for the Town of Mamaroneck and the Village of Larchmont. The NYS Department of Environmental Conservation, under the Environmental Quality Bond Act of 1972, awarded the Town and Village $618,965 in March of 1990 to dredge the Premium River. The Town serves as lead agency for the project and hired Malcolm Pirnie Inc. as consulting engineers to obtain the required permits, perform survey work, sample and analyze the disposal of dredged material, and to oversee the actual dredging work. This wetland restoration effort has focused on dredging to restore tidal circulation in the river and marsh system. This project has been stalled due to the dredging contract bids coming in above the budget and difficulty in finding capping material for the dredged spoil and the proper disposal site.

The productive salt marshes, tidal flats and shallows serve as nursery and feeding areas for a variety of finfish species including alewife, striped bass, blackfish, bluefish, cod, eel, winter flounder, summer flounder, mackerel, menhaden, porgy, weakfish, silversides and killifish. Shellfish found in the area include hard clam, soft clam, blue mussel, American oyster and bay scallop. Although the Mill Pond was once used for planting and harvesting oysters, the entire area is now closed to shellfishing due to degraded water quality (high coliform levels) resulting from roadway and other nonpoint source runoff. Recreational fishing remains locally important.

A variety of coastal wildlife species occur in and around the Premium River - Pine Brook Wetlands Complex (see Appendices B and E). Nesting bird species include the black-crowned night heron, ring-necked pheasant, mallard, Canada goose, mute swan and killdeer. Many species of waterfowl, shorebirds, marsh birds and passerine species feed in the area as residents during the summer and also during spring and fall migrations. Large concentrations of black duck occur during migrations and in recent years, osprey have been observed migrating through the area. Overwintering species include common loon, American coot, greater scaup, lesser scaup, northern shoveler, mallard, common goldeneye, canvasback, common merganser, hooded merganser and red-breasted merganser. The use of this area by waterfowl in winter is influenced by the extent of ice cover on Premium Mill Pond. Waterfowl hunting

is not allowed except for some areas offshore of Premium Point. Harbor seals are occasional visitors to the area.

The combination of this area's diverse natural communities and wildlife and its proximity to New York City and the densely populated region of Westchester County makes the Premium River - Pine Brook Wetlands Complex significant for informal nature study, birding, photography, environmental education and research. The L.I.F.E. Center naturalists as well as other Westchester citizens groups conduct frequent nature walks in this area for school groups and adults. Several high schools and universities use this area as an ecological laboratory. Several local groups including the Conservation Advisory Commission, the L.I.F.E. Center, the Premium River-Pine Brook Preservation Association, and the Larchmont/Mamaroneck Coastal Zone Management Commission are dedicated to preserving and restoring this area.

N. Locally Important Fish and Wildlife Habitats

The three habitats mentioned below are designated as "Critical Environmental Areas" under the Town of Mamaroneck Environmental Quality Review ordinance and the State Environmental Quality Review Act adopted by the Village of Larchmont (see Section V).

1. The Hommocks Salt Marsh Complex is located in and near the head of Little Harbor Sound, a tidal inlet in Larchmont Harbor. It straddles the boundaries of the Village of Larchmont and the Unincorporated Area of the Town of Mamaroneck, and is associated environmentally with adjacent lands in the Village of Mamaroneck. Its main component is the Town portion (about 3.5 acres) of the Hommocks Conservation Area, most of which consists of tidal wetlands. Entering the marsh at the northwest corner of the conservation area are the outfalls of East Creek and Gut Creek, which flow through pipes under the Hommocks athletic field and drain a watershed which is fully developed with residential and business properties and major thoroughfares. There is also an above-ground section of East Creek running approximately along the Town-Village border. The complex also includes three other areas. One consists of some 5 acres of sheltered waters off the southwest end of the Hommocks peninsula, an important feeding area for migrating waterfowl (see Appendix B). Another is a strip, about 2 acres in area, of partly marshy, partly wooded ground skirting the south end of Flint Park in the Village of Larchmont from the East Creek outfall to the western boundary of the park. This strip forms the north bank of Little Harbor Sound and is ecologically associated with the Hommocks Marsh. The fourth component is the 6.74-acre segment of the Hampshire Country Club golf course, lying within the Town east of Hommocks Road, through which Gut Creek flows on the surface. The total area of this complex is thus about 17 acres, all but about 2 acres of which are in the Unincorporated Area.

Both of the above habitat complexes are rich in wildlife and include areas of open ground, woods, meadow edges, salt marsh, intertidal flats, and open water, either salt or brackish. Water depths are shallow. Tidal fluctuation is slower in the Premium complex because of the dam between it and the Sound. Both areas are surrounded partly by parks and playing fields and partly by residential and commercial development. As is discussed in Part U, they have survived considerable adverse impact from their surroundings.

2. The Larchmont Reservoir-Sheldrake-Leatherstocking Freshwater Wetland Complex (RSL-CEA) is located in the Sheldrake watershed about two miles inland. Its total area is about 520 acres. Extending eastward from the Town portion (12.76 acres) of the Larchmont Reservoir property across the Unincorporated Area to the Village of Mamaroneck boundary, it forms a network of large and small open spaces and connecting habitat corridors (see Appendices B,C and D) to the north and south of the 55-acre Sheldrake-Leatherstocking trail system, which forms its main east-west axis. To the north are the Bonnie Briar and Winged Foot golf courses, respectively 141.4 and 280 acres. Within and near the golf courses and the trails are important habitat corridors following the two branches of the Sheldrake River and its small tributaries. These include wetlands, springs, ponds, flood plains, and streams flowing into the Sheldrake's two branches. South of the Conservation Area, the Complex includes the Sheldrake and its two branches, the 7.4-acre Badger Sports Club, Gardens Lake, and the small Revere Road Conservation Area next to the Village of Mamaroneck border. (If defined solely in ecological terms, this Complex would extend well into the Village of Mamaroneck downstream and into Scarsdale and New Rochelle along the upstream portions of the Sheldrake watershed. Only those sections within our Coastal Zone boundary are included here.) The main components of this Complex are as follows:

   a. Of the 60-acre Larchmont Reservoir-James G. Johnson, Jr. Conservancy, 12.76 acres are within our Coastal Zone boundary, including the lower half of Goodliffe Pond, the lower dam and spillway, a section of the Sheldrake River (West Branch) below the spillway and west of Weaver Street, and surrounding woods and meadow. Although the larger part of this Conservancy lies in New Rochelle, the entire Conservancy is owned by the Village of Larchmont, dedicated by it to public uses including wildlife preserve, and maintained by agencies of the Town under Village supervision and in cooperation with the City of New Rochelle. The Conservancy's two lakes (about 25 acres) and surrounding deciduous woods, rocky upland, marshy low ground and meadow, make it an excellent habitat for a wide variety of aquatic and land birds. In 1985, a fence was built across the base of the smaller peninsula near the south end of

Sheldrake Lake creating a protected nesting area for wild birds. A nesting pole for ospreys was erected on Goodliffe Pond by the Friends of the Reservoir. Nesting ospreys have been observed.

b. The two golf courses, totaling over 421 acres, offer wide expanses of relatively undisturbed open space with varied topography and numerous ponds, streams, thickets and groves of trees. With the Badger Sports Club property (7.4 acres), private open space in this complex totals some 428 acres. The Town undertook an environmental review of the golf course properties in order to ascertain what kind of zoning of these properties would best serve the Town's planning goals and community character. A Final Environmental Impact Statement on this matter was accepted by the Town Board in the fall of 1993, and a Findings Statement in support of rezoning to Private Recreation Zone was made on April 5, 1994.

c. The Sheldrake-Leatherstocking Conservation Area comprises 55 acres of rocky, deciduous woodlands, of which 13 acres are freshwater wetlands. It is intersected by both branches of the Sheldrake and by two tributaries to them, as well as by two tributaries to the main stem of the Sheldrake near the Village of Mamaroneck line.

d. All the habitat corridors connecting the above areas are centered on tributaries of the Sheldrake and include the wetlands and other features described above. Their total area is estimated at 24 acres.

e. The existing, historical land use patterns within the RSL-CEA, as well as development in surrounding communities, have created an extensive "green" corridor and critical, although fragmented, stable corridor for local wildlife populations. The latter have had sufficient time to adjust and adapt to these habitats. The RSL-CEA has an extensive sampling of most ecological communities typical of Westchester County. Because wildlife populations have adapted to the existing land use and to the isolated nature of the various natural habitats, they would be very sensitive to any major changes in the habitat network. Pressure from surrounding areas would cause wildlife species to become more concentrated, and since individual species would be forced to rely on less acreage, they would experience greater competition for existing resources. These types of changes favor those species that are

adaptable to living under greater stress, and are responsible for the loss of more sensitive species noted throughout Westchester County.[5]

3. The Premium Salt Marsh Complex. See Part M above.

4. Intertidal & Littoral Zone. In addition to the above, a fourth habitat complex merits description in this inventory even though, because it is protected under the State Tidal Wetlands Law, it is not formally included among the habitat complexes listed in this program. This is the intertidal and littoral zone extending from Larchmont Harbor westward along the Sound shore to and around Premium Point. Included in it are the shores of the Larchmont Manor Park, Horseshoe Harbor, the Larchmont Shore Club, and intervening private and public shoreline properties. This complex includes rocky coves in the Manor Park-Horseshoe Harbor area, several of which contain patches of salt marsh peat and grasses, as well as a small sandy beach called Pirate's Cove. Biologically rich rocky and sandy beach continues off the Shore Club and Premium Point Beach. This habitat nourishes a wide variety of fish including striped bass, bluefish, flounder, mackerel, blackfish, menhaden, alewives, eels, porgies, minnows, pipefish, and seahorses; also horseshoe crabs, lobsters, hardshell and softshell clams, oysters, mussels, and snails. Bird species include several species of gulls, herons, kingfishers, and shorebirds that feed on the above organisms, as well as swans, geese, ducks, and other species that feed on marine vegetation.

O. County Critical Environmental Areas

In 1989, Westchester County enacted a law designating certain areas that are critical under the State Environmental Quality Review law but do not lie wholly within one municipality, and also areas that might impact on County property as Critical Environmental Areas (CEA), thereby entitling them to some measure of legal protection against adverse actions in or near them. While the Coastal Zone Management Commission (CZMC) supported the original "500 feet from Long Island Sound" zone as a CEA, the County subsequently adopted a "cultural boundary" which in our area is mainly a line mapped from the Boston Post Road to Long Island Sound. The Premium River-Pine Brook Wetlands Complex, recommended for inclusion in the CEA by the CZMC, and the Larchmont Reservoir-James G. Johnson, Jr. Conservancy, recommended for inclusion by The Friends of the Reservoir organization, were also designated County CEAs. (Also see Section V.)

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5 **Coleman, Stephen, Management Plan for the Reservoir-Sheldrake-Leatherstocking Critical Environmental Area (RSL-CEA) Part III, December 1992 (see Appendix I).**

The CZMC also recommended to the County Board of Legislators that provisions be made within the CEA law to ensure that an integrated review procedure would occur for those actions that might involve and affect more than one government. This recommendation was not adopted and therefore, there is no requirement for intermunicipal notification of pending actions in these special areas nor is there a system for coordinated "consistency" review. Examples of some of these intermunicipal areas can be found at the Larchmont Reservoir (Village of Larchmont and the City of New Rochelle), the Premium River-Pine Brook Wetlands Complex (the Town of Mamaroneck, Larchmont and New Rochelle) and at the Hampshire Country Club portion of the Hommocks Complex (the Town and the Village of Mamaroneck). Therefore, each municipality must remain vigilant. For our community, the most significant value of the Westchester County designation is that it conferred Critical Environmental Area status to the Larchmont Reservoir-James G. Johnson, Jr. Conservancy and to that portion of the Premium River-Pine Brook Wetlands Complex lying within the City of New Rochelle and to a wider range of areas lying south of the Boston Post Road, including privately held lands along the Premium River not previously cited by the Village.

P. Fish and Wildlife Values

In this narrow, densely developed region of southeastern New York State, between the *fjord* of the Hudson River and the arm of the sea that is Long Island Sound, all surviving patches of relatively undisturbed open space and wetland -- four of which, described above, are in our portion of the Coastal Zone -- are vitally important to a great diversity of fish and wildlife, both resident and migratory. Lists of bird, land and aquatic species found in these three habitat complexes are given in Appendix B. The discussion below deals only with some of the more notable species. Unless otherwise stated, the species mentioned are found in all three habitat complexes.

1. Fish: The Premium and Hommocks areas are nurseries and feeding areas for bluefish, winter and summer flounder, eels, blackfish, mackerel, menhaden, weakfish, silversides, alewives, and cod. Fish at the Reservoir include large-mouth bass, yellow perch, sunfish, eels (which migrate upstream from salt water), brown bullhead catfish, carp, and shiners.

2. Other Aquatic Species: Diamond-back terrapin breed in the Hommocks Marsh, and snapping turtles in the Reservoir. Blue crabs have begun to return to the Premium. It is hoped that their number may increase as water quality improves. Among shellfish that breed in both areas are ribbed and blue mussels; hard, soft-shell, and razor clams; oysters and scallops. However, because of pollution, the waters of the Premium area are not certified for shellfishing -- once a common activity there. Horseshoe crabs, now on the endangered species list, breed in the Premium River. Naiads, a

freshwater mussel, breed in the lower Reservoir -- proof of the quality of its water, since this species is especially sensitive to pollution.

3. Birds: Many bird species use these habitats as nesting areas, and still more use them as feeding grounds, either as residents or in migration or as casual visitors. Nesting species include, in all three areas, the black-crowned night heron, ring-necked pheasant, mallard, Canada goose, mute swan, green heron and killdeer. Also nesting at the Reservoir are the snowy egret and wood duck. Feeding species in all three areas include at least seven heron species: snowy egret, great egret, great blue heron, green heron, black-crowned night heron, yellow-crowned night heron and American bittern; and another long-legged wader, the glossy ibis. Migratory visitors feeding in all three areas include large numbers of black ducks and, in recent years, at least one osprey in each area. Between late October and April, the following wintering waterfowl feed in these areas: common loon, American coot, greater scaup, lesser scaup, shoveller, mallard, Canada goose, mute swan, ruddy duck, bufflehead, American widgeon, common goldeneye, canvasback, common merganser, hooded merganser, and red-breasted merganser. Grebes and pintails are casual visitors. Use of these areas by waterfowl in winter is influenced by the extent of ice cover from year to year. Normally most feed in the open water of the Mill Pond in midwinter; then, with the retreat of the ice, larger numbers invade the wetlands before migrating north.

   Other bird species seen in, and in many cases nesting in, one or more of these three areas include many of the passerine species common in the American East; the belted kingfisher; crows (black and fish); blue jay; five hawks (red-shouldered, marsh, kestrel, merlin, osprey), four gulls (herring, great black-backed, ring-billed, laughing); six woodpeckers (common flicker, pileated, red-bellied, yellow-bellied sapsucker, hairy, and downy); three swallows (tree, bank, and roughwinged); four wading birds (lesser yellowlegs, greater yellowlegs, spotted sandpiper, semipalmated sandpiper); meadowlark; and, as rarer visitors, the snowy owl, black skimmer, clapper rail, Virginia rail, and American pipit. On one occasion a Eurasian fieldfare appeared, drawing bird enthusiasts from near and far.

4. Land animals: Aside from the common rodents, muskrats breed in the Premium area and are also found in the Reservoir-Sheldrake- Leatherstocking area. Among other mammals found in the Reservoir area are the short-tailed shrew, North American field vole, white-footed mouse, woodchuck, opossum, striped skunk, raccoon, red fox and deer.

5. Utilization: The uses of the fish and wildlife species described above by people in our area, or nearby, include some commercial exploitation (mainly lobsters), but more important by far are recreational, educational, scientific,

aesthetic and ecological values. There is some sport fishing offshore in addition to commercial fishing, the latter being based on nearby ports, not in our area. There is some land-based fishing from shoreline clubs and residences. Hunting is not allowed in Larchmont Harbor because of the proximity of residential areas, but there is some duck hunting offshore from Premium Point.

Most important are those recreational uses classified as "passive" -- birding, photography, nature study, etc. Much of this - activity has educational value, and in some cases scientific value as well. L.I.F.E. Center naturalists conduct frequent nature walks in all three areas for school groups and adults. Annual Audubon bird counts are also conducted there. Several ecological studies of these areas, assigned as educational projects at the State University of New York at Purchase, the City University of New York, Manhattanville and Iona Colleges and Mamaroneck High School, have had scientific value. Students research has led to advanced investigation at the colleges, and a high school student's project won a Westinghouse Science Award.

No less important, although difficult to assess, is the contribution these three areas make to the balance of nature in this highly developed land and seascape at the western end of Long Island Sound. Spawning fish and lobsters (and, it is hoped, crabs and shellfish once again) not only contribute to the commercial catch in this part of the Sound, but provide food for many beautiful and useful species of shorebirds. Insect-eating birds that breed in these habitats help to control insect pests throughout the coastal area, reducing the need for chemical insecticides.

6. Stewardship: The biological and botanical inventories appearing in the Appendix were tabulated from 1991-1993. The Coastal Zone Management Commission and the Conservation Advisory Commission have employed a naturalist, bird specialist with many years of experience in the environmental field especially in habitat management, to assess the Town-Village Critical Environmental Areas (CEAs). The CZMC is particularly interested in keeping current the existing inventories which may be used as baseline data, to gain site specific recommendations for buffer areas to protect these resources and to know whether restoration and enhancement of CEAs is needed. Because of budget constraints, only a small part will be done each year. In time, all three CEAs should be studied in depth.

Q. Water Resources (See Maps 5 and 5A.)

1. Fresh water: A considerable network of lakes, small ponds, wetlands and watercourses in the Unincorporated Area, as well as the small but important remaining above-ground stretches of Pine Brook and East Creek in the

Village, function as wildlife habitats and as important resources for quiet recreation. In addition, as noted above, the Upper Reservoir (Sheldrake Lake), located in New Rochelle but owned by the Village, serves the important function of standby water supply in case of severe water shortage. It is classified by New York State as "A", "suitable for all uses", while the Lower Reservoir (Goodliffe's Pond) is classified "C", "suitable for uses other than consumption and primary contact recreation" (swimming). The Sheldrake River is classified "C" due to intermittent flow and inability to support propagation of fish. Gardens Lake is also classified "C". The East Creek, Premium River and Pine Brook are currently classified "I"; however, they are subject to reclassification in the near future which will place them approximately between classes "C" and "D".

This community's water supply comes from the New York City system. However, recent reports by Westchester County authorities of increasing demand on the New York City system suggest that reactivation of the Upper Reservoir as an emergency water supply at some time in the not too distant future is a distinct possibility. Under County plans, filtration and other operational costs in such a contingency would be borne by the County. However, it is incumbent on, and in the interest of, the Village of Larchmont, as owner of the Reservoir property, to do its best, with the cooperation of upstream municipalities, to maintain Sheldrake Lake in its present water classification "A", not only for standby water supply purposes but also in order to avoid deterioration of the Reservoir property as a wildlife habitat and recreational and educational area.

2. Salt water: The deep waters of Long Island Sound off our shores are classified SA, suitable for all salt-water uses; but several wide areas near the shore, including many shellfish beds, are classified SB, which excludes human consumption of shellfish. Shell-fishing along these shores, once a significant commercial and recreational activity, has been banned for many years mainly because of organic pollution from sewage. The Premium Mill Pond is classified "SB", which excludes primary contact recreation as well as shellfishing. A further threat to the quality of these waters is the nonpoint discharge of organic nutrients--fertilizers, animal wastes, decomposing leaves and grass cuttings, etc.--into coastal waters via stormwater runoff. These substances, together with sewage overflow, stimulate algal growth and deplete the oxygen in the water which is essential to fish and other forms of life.

The above classifications do not reflect the frequent pollution crises described in later sections, caused by the flow of raw sewage into coastal waters after heavy rains, rendering these waters temporarily unfit for swimming; nor do they reflect the serious, though temporary, effects of oil spills.

R. Coastal Erosion Hazard Areas

The Coastal Erosion Hazard Areas (CEHA) program is part of a protective strategy that has been adopted by the State. CEHAs include natural protective feature areas (beach, bluff, wetland, dune and nearshore area), structural hazard areas (located landward of natural protective features) and flood zones. CEHAs were designated in the Town of Mamaroneck and Village of Larchmont in January 1989 pursuant to Article 34 of the New York State Environmental Conservation Law (Coastal Erosion Hazard Areas Act). The general location of the area is generally from west to east: Premium Point to Horseshoe Harbor and ending at Umbrella Point. The area as a whole varies in width from 50 to 200 feet upland from mean high water mark. However, a substantial portion of the Town/Village coastline did not receive CEHA designation. Those areas not so designated should be equally well protected.

Those prominent features falling within the designated CEHA are the following Natural Protective Features: a) beaches at Horseshoe Harbor and at the Larchmont Manor Park, and b) Premium Point Beach. No Structural Hazard Areas have been designated here at this time.

In order to protect development or to mitigate the effects of development and other activities in the flood and erosion protection capability of these areas all development and activities are subject to the standards contained in the implementing regulations of Article 34 of the ECL (6NYCRR part 505). These regulations discourage, and in some instances prohibit, structures in coastal erosion hazard areas for safety reasons, and also because of the adverse effects structures may have on natural protective features and on coastal processes.

CEHA regulations are administered by the State Department of Environmental Conservation. These regulations are designed to ensure that certain kinds of activities meet required standards. Under the regulations, DEC will authorize a coastal erosion management permit on condition that the proposed regulated activity prevents, if possible, or minimizes adverse effects on natural protective features and their functions and protective values as described in Part 505 of the ECL.

S. Flood Hazard Areas

Another flood protection strategy is the National Flood Insurance Program (NFIP) that allows property owners to purchase federally backed flood insurance within communities that participate in the Program, thereby enabling property owners to reduce flood losses on residential structures. The Federal Emergency Management Agency (FEMA) has identified special flood hazard areas with various elevations such as the 100-year and the 500-year flood plain, and has issued flood insurance rate maps (FIRM) showing the location of these areas. Local flood damage prevention laws ensure protection of these areas through compliance with this policy.

The Flood Hazard Area or A-Zone in the TOM/VOL is located generally along the shoreline and up along the river corridors. It is located within the 100-year floodplain, extending from the boundaries of the V-Zone (Coastal High Hazard Area) to the limits of the 100-year flood hazard area. The A and V Zones are identified on the FIRM issued by FEMA.

The V- Zone or Coastal High Hazard Areas are located generally along the perimeter of Larchmont Harbor including along Monroe Inlet, Umbrella Point, Horseshoe Harbor to Premium Point Beach and most of the perimeter, and extending inland on the Premium Point peninsula. They extend inland to the A-Zone. The importance of their delineation is that these areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash.

T. Other Resources

1. Residential Real Estate: Our population chooses to live in this area not only because of its strategic proximity to New York City but also for its amenities, especially the aesthetic and recreational value of its Sound shore. This fact helps to account for the high value of real estate in the area.

2. Human Resources: Our residents include a high proportion of entrepreneurs, managers, professionals, artists, and skilled technicians working in the New York metropolitan area. The Mamaroneck district's primary and secondary schools, supported by its strong tax base, have long been of high quality with a high percentage of college-bound students -- a resource of great long-term importance.

3. Organizational Resources: Larchmont and the Town of Mamaroneck can draw on a wide array of local organizational resources and programs in formulating and carrying out their joint Local Waterfront Revitalization Program. Among these are:

   a. Official bodies:

      Town Council (Town Board)
      Village Board of Trustees
      Town Planning Board
      Village Planning Commission
      Town and Village Zoning Boards of Appeals
      Town and Village Architectural Review Boards (also see Section V)
      Town and Village Engineering, Highway & Parks Departments
      Town Conservation Department
      Joint (Village and Town) Sanitation Commission

Town of Mamaroneck Conservation Advisory Commission
(representing the Town, Village of Larchmont and Village of Mamaroneck)
Town Recreation Commission and Staff Village Recreation Committee
Village Beautification Committee
Village Parks and Trees Committee
Village Reservoir Committee

b. Nongovernmental bodies:

The L.I.F.E. (Local Involvement for Environment) Center, the primary resource for environmental education and awareness. It is mainly supported by membership dues, but also receives budgetary contributions from the Town and the Villages of Larchmont and Mamaroneck.
The Larchmont League of Women Voters
The Garden Club of Larchmont
Friends of the Reservoir, Inc.
The Larchmont Manor Park Society
The Larchmont Yacht Club
The Horseshoe Harbor Yacht Club
The Larchmont Historical Society
The Mamaroneck Historical Society
Local Boy Scout, Cub Scout, Girl Scout, and Camp Fire Girl troops

This list is by no means complete. Various local organizations show an interest from time to time in local environmental, land-use, and other questions affecting the coastal zone, including the Larchmont Rotary Club, the Chamber of Commerce, the Larchmont-Mamaroneck Civic Association, the Premium River-Pine Brook Preservation Association and homeowners' groups in particular residential districts.

c. Educational and Informational:

Local public and parochial schools and their associated PTAs, active in environmental education and recycling programs.
The Larchmont Public Library
Newspapers: (1) The Gannett Westchester Newspapers' Suburban edition, The Daily Times, (2) The weekly Sound View News provides extensive local coverage for New Rochelle, Larchmont and Mamaroneck.)

Cable TV: LMC-TV, the local community public access facility, with studios in Mamaroneck High School and the Emelin Library, produces programs of local interest that are aired on three cable TV channels to TCI subscribers in Larchmont Village and Mamaroneck Town and Village.

U. Watershed Management

1. Introductory Observations: The problems of our coastal zone, unlike those in many industrial communities, are not primarily economic. There is no industry on our waterfront. Most of our residents commute to work elsewhere, and most of those who work in Larchmont's retail and service establishments reside elsewhere. (The Town has almost completed an affordable Townhouse type group of apartment buildings, which will provide housing for some Town employees.) Despite a normal degree of tax resistance, municipal and educational services remain strong, and there is a well-developed "safety net" of local governmental, County, and volunteer social services.

Phase I of a Master Plan Update completed in September 1986 for Mamaroneck and Larchmont dealt with the eastern portion of the Town and Village. Phase II completed in October 1987 dealt with the Boston Post Road. The CZMC consistency review recommended the use of Best Management Practices in any drainage area (former Policy 14A, now see Policy 37), and the use of silt traps which have the capacity of removing oil and grease in parking lots and gas stations to protect the Sound from polluted stormwater runoff. Regular inspection of the silt traps was further recommended. The business areas are slowly being improved through the use of trees and shrubs and other amenities. As to large, undeveloped sites, increasing the minimum lot size was recommended where over-development could produce a negative impact on the Premium River-Pine Brook area. Some of our older apartment units have deteriorated and some commercial structures along the Post Road and Palmer Avenue are in need of a face lift.

Environmental constraints, on the other hand, are serious and increasing. As in other highly developed areas, these problems result primarily from many decades of residential and commercial development without much thought being given to environmental impact. In many cases, inadequate provision was made for sanitary sewage disposal and storm water drainage, and for maintaining a prudent balance between the built environment and the remaining open space.

Developers, while striving to produce "floodproof" structures in areas known to be flood-prone, gave little if any thought to the flooding that their

alteration of the landscape could inflict on neighbors downstream nor were such effects sufficiently considered by municipal planners. These conditions were aggravated by taxpayers' natural wish to broaden the tax base by more intensive zoning and exploitation of remaining open land. The price is now being paid in flooding, erosion, siltation, and pollution of ground water and air, causing or threatening serious damage to property, to public amenities, and to local ecosystems, including the fish and wildlife habitats discussed in parts M and N above. (See Section V for legislation concerning storm water runoff, waterfront zoning, flood damage prevention.)

In addition, many adverse effects take place during the construction process. Land-clearing and building projects, lasting for months and sometimes for years, are important causes of erosion, siltation, and pollution, especially downstream from the construction site, due to inadequate management practices to control these side-effects. (See Section V for legislation concerning surface water, erosion and sediment control.)

It cannot be too strongly emphasized that these conditions have arisen not only within the political jurisdiction of the Village and the Unincorporated Area, but also in nearby upstream communities -- parts of New Rochelle, Scarsdale, White Plains, and the Village of Mamaroneck -- whose waters flow through the Pine Brook, Sheldrake, and East Creek watersheds into the Unincorporated Area and the Village of Larchmont. Overbuilding of housing, streets, shopping malls, parking lots, etc., in recent decades has been a general practice through most of the geologically shallow watershed whose downstream coastal section our two municipalities occupy. Our community consequently receives the brunt of flooding, siltation and pollution from a wide area of overbuilding upstream.

Retention of open space is essential to flood control: open space in New Rochelle and Scarsdale retards flooding in the Village and the Unincorporated Area, while open space in the Unincorporated Area helps to retard flooding of the lower Mamaroneck River in the Village of Mamaroneck; and conversely, open space on the Village of Mamaroneck side of the Hampshire Country Club retards flooding and erosion in the Hommocks Marsh. Inter-municipal cooperation in the preservation of existing open space is thus of high importance to all these communities. Pressure for residential or commercial development in the Westchester Sound shore area's remaining open space cannot be wisely balanced against other important long-term considerations unless the municipalities concerned, in cooperation with the County government, develop common approaches to zoning, planning, public ownership, and other means of control.

A further intergovernmental dimension of our problem arises from the fact that the sanitary sewers in our community feed into the County sewage treatment plants in New Rochelle and the Village of Mamaroneck.

To succeed, therefore, our LWRP includes not only adequate policies and programs within our own jurisdiction but also effective measures to obtain the cooperation of upstream and neighboring communities, both directly and through the channels of State and County government, in order to cope with problems of storm water runoff, sewage, and pollution.

In the sections that follow, discussion of these adverse conditions centers first on certain key localities in our community; then on general problems affecting the community as a whole.

Important, but insufficient, protection against these problems is found in existing legislative and physical steps taken by the two municipalities. Existing local laws and regulations including those enacted to implement the LWRP's 1986 recommendations are listed in Section V. Important in this context are the Flood Damage Prevention regulations, the Town's Freshwater Wetlands law, certain provisions of the zoning laws, SEQR laws, site plan review laws, subdivision regulations, a Town law governing conservation areas and a Village law dedicating the Larchmont Reservoir property.

Physical mitigation has been obtained from a combination of natural and built features, the most important of which are the remaining open space in the Pine Brook and Sheldrake flood plains, lying partly within the Town and partly in White Plains, Scarsdale and New Rochelle; the Larchmont Reservoir with its computerized release valve, functioning as a retention basin; and the tidal wetlands at the foot of the Pine Brook-Premium and East Creek-Gut Creek-Hommocks watersheds. Some role in the latter watershed is also played by a portion of the Hampshire Country Club property, located partly in the Town and partly in the Village of Mamaroneck. So far as lies within the power of the two municipalities, the flood protection value of all these features will be preserved. To this end they will also seek the necessary cooperation of the upstream municipalities just mentioned.

However, these existing laws and physical features, taken together, do not suffice to achieve effective flood and erosion control in this area and will not be relied upon to do so. Rather, they will be used as elements in an integrated flood and erosion control strategy which should be developed for the three drainage basins pursuant to Policy 14. This strategy should include physical, legal, and administrative actions such as those described below, as well as the land use controls set forth in Section IV. It should be based on technical studies of the hydrology and physical characteristics of the three

watersheds, and on feasibility studies, where necessary, of various physical actions under consideration to determine their combined effects in association with land use patterns and controls. In all aspects of this strategy, the two municipalities should seek the cooperation of neighboring municipalities in the three watersheds and Westchester County.

2. Problem Localities: The Pine Brook-Premium Watershed

Of the three watersheds that drain our coastal zone, the most westerly one is drained by Pine Brook, which originates in north central New Rochelle, and flows south along Pine Brook Boulevard to Beechmont Lake. Thence it flows underground, passing beneath City Park, enters the Unincorporated Area at Fifth Avenue, passes under the New England Thruway and the residential Pine Brook section in Larchmont and then surfaces south of the Post Road. From there it flows southward a quarter of a mile to join the Premium River, which also originates in New Rochelle. An extensive salt marsh surrounds the confluence of the two streams. The river then winds its way to the Premium Mill Pond and thence to Long Island Sound.

The Pine Brook-Premium watershed drains a considerable part of New Rochelle and the western portion of our community, including several low-lying residential sections which are severely impacted by flooding. Other problems in these areas are sewage backup, siltation and oil pollution. Four areas in particular require comment:

a. Larchmont Hills. This subdivision in the Unincorporated Area, bordering North Chatsworth Avenue north of the Thruway, I-95, overlies a covered eastern tributary of Pine Brook. Despite reconstruction of a faulty sewer in 1978 (a sag had developed due to settlement of marshy soil), sanitary sewers continue to back up during heavy rains such as those of the spring of 1983 and the winter of 1992, and basement flooding contaminated by raw sewage is common. The main causes have been described as surcharging caused by long-standing illegal connections of residential storm drains and basement sump pumps into the sanitary sewers, and substantial leakage of storm water into sanitary sewers through broken pipes or vent holes. As a result, the New Rochelle treatment plant cannot handle the storm-swollen sewage flow from Larchmont. Its managers often shut down the Fifth Avenue pumping station during heavy rains, leaving sewage to back up in the streets and basements of Larchmont Hills.

b. The Pine Brook Area. This residential neighborhood in Larchmont, overlying the covered portion of Pine Brook just north of the Post Road, has been subject to ever-increasing flooding and sewage backup

in recent years. The problem has both upstream and downstream causes. Upstream, it stems from development since World War II - some of it local but most of it in New Rochelle - which consumed much of the open land in the Pine Brook flood plain. Downstream, the causes are several: siltation in the Premium River and erosion of the stream bank, further clogging a channel already narrowed by filling operations, and sluggish tidal cleansing of the river due to the dam at the mouth of the Mill Pond -- all resulting in a choking of the river by sediment at the confluence of its two branches causing upstream waters to back up. The effect can be seen in Shadow Lane and Pine Brook Drive which become a lake during heavy rains, flooding nearby basements and yards; as well as in rear yards along Mayhew Avenue, where sewage backup is frequent in heavy storms.

c. The Upper Premium River, extending from Dillon Road to Pryer Manor Road and nearby streets along the Town's boundary with New Rochelle, is the fourth problem location in the Premium watershed. Flooding of Pryer Manor Road during storm high tides has been a common experience for decades, but the water storage capacity of the surrounding marsh helped to keep flood damage within narrow limits. In 1970, however, despite residents' protests, a part of this marsh lying within the Town of Mamaroneck was approved as a building site, destroying parts of the marsh on both sides of Dillon Road. Now, during storm high tides and heavy rains, the 36 homes in this area are completely cut off by floods from fire and ambulance service over either Dillon Road or Pryer Manor Road. Recent storms in 1992 caused serious damage to homes and garaged automobiles.

d. The Lower Premium River, Marsh, and Mill Pond. This area is the central focus, the most beautiful section, and the most ecologically important part of the Premium Basin. It suffers from both siltation and chemical pollution. Some of the silt washes down from the Boston Post Road and from dead end streets abutting the east bank. The other main environmental insult in this area is pollution of the river by oil, gasoline and other automotive chemical pollutants coming mainly from the Boston Post Road (U.S. 1) traffic. In addition, carelessly discarded trash also finds its way to the water.

Incidents of sewage backup have also been reported in this section, especially near dead-end streets abutting the Premium River. Some relief was reported in 1984 after supplementary pumps were installed.

Numerous pollution incidents have occurred in the Premium Basin over the years. Most have been traced either by the Department of

Environmental Conservation (DEC) or U.S. Coast Guard specialists or by a water quality consultant hired by the Town. The main sources were leaking oil tanks in apartment houses, leaking gasoline or waste oil tanks in service stations and taxi companies, and surreptitious disposal of waste oil in storm drains. These problems exist in all three municipalities: New Rochelle, Mamaroneck, and Larchmont. Although owners usually comply with orders to repair or replace faulty tanks after the damage is done, routine inspection to assure preventive maintenance has been grossly inadequate, and instances of illegal disposal have been hard to trace.

Due in greatest measure to the tenacity of Larchmont officials, years of leaking heating oil from the MacLeay Housing in New Rochelle was finally cleaned up by the DEC. The latter placed an oil containment boom on the Premium River near the Boston Post Road for about a year. This also proved very effective in containing oil illegally dumped into storm drains as well as trapping debris from eventually ending up in Long Island Sound. When the DEC finally removed the boom, the responsibility for maintaining a boom was assumed by the Village in 1989, which continues to assume this charge. Because of its possible toxic nature, the absorbent boom is placed, removed and replaced as needed by an outside firm by arrangement with the Village Engineer.

Finally, the natural barrier of Premium Point Beach at the narrow eastward neck of Premium Point provides important protection for the Mill Pond and adjacent residential areas against erosion and other storm damage during coastal storms. The beach itself, however, is vulnerable to erosion. It should not be built on, and will require careful monitoring and maintenance to preserve it.

e. Other issues: The above discussion is by no means a complete account of flood-related problems in and near the Premium estuary. Sewage backup, for example, occurs in a number of nearby places in the Village. Basements of homes near the dead ends of Chestnut, Willow, and Oak Avenues suffer during storms from backed-up sewage whenever the County sewage treatment plant in New Rochelle closes the intake valve in the sanitary sewer that serves that area. Near the west end of Park Avenue, it is reported that backed-up sewers sometimes flow with such force that they dislodge a manhole cover in the street. Raw sewage has also appeared in plumbing facilities in the Manor Park bathing pavilion, requiring installation of a shutoff valve for use during rainy periods.

Aside from sewage backup, leakage from defective sewer pipes as well as leachate from existing septic fields may also be a problem in this area. Although we have no current information on the coliform count in the Premium Marsh, it is important to note that the sewer pipe draining the Premium area runs under the Premium River and the Premium Marsh. Its proper maintenance is highly important to the environment of this area.

3. The Sheldrake Watershed

Covering portions of White Plains, Scarsdale, New Rochelle, and the Town and Village of Mamaroneck, the Sheldrake watershed is largely developed but still has important areas of open space both in the Town and upstream. The Town's portion of the Sheldrake watershed has remained as a major area of concern regarding land use and consistency with coastal policy all through the first five years of the LWRP. It contains the largest surviving areas of open space, and is under continued pressure for further real estate development. Flooding and the attendant problems of erosion, siltation and sedimentation are of major concern. The Sheldrake watershed is drained by numerous small streams which join to form the West and East Branches of the Sheldrake River. The West Branch rises in a residential area at the westernmost edge of White Plains near Cushman Road. It then flows south across Scarsdale into northern New Rochelle, entering the Town of Mamaroneck at the Larchmont Reservoir. The two main tributaries of the shorter East Branch rise in Scarsdale and flow southward into the Town between the Winged Foot and Bonnie Briar golf courses, then join south of Fenimore Road in the Sheldrake Conservation Area. The East Branch then continues southward to join the West Branch east of Weaver Street at Valley Stream Road. The river then flows southeast between East and West Brookside Drive, through a series of waterfalls to Gardens Lake (widely known as the "Duck Pond"). Thence it turns northeast, flows under the New England Thruway, then enters the Village of Mamaroneck to join the Mamaroneck River which empties into Mamaroneck Harbor. The Sheldrake's problems thus affect our neighbors in the Village of Mamaroneck[6] as well as residents of the Unincorporated Area.

Two locations in the Sheldrake watershed present acute problems for our residents:

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[6] **A proposed physical project in the original LWRP called for the Town to modify sections of the West Branch immediately upstream from its confluence with the East Branch at Valley Stream Road, a focus of particularly acute flooding. In 1982, the U.S. Army Corps of Engineers proposed a project to relieve flooding by constructing a concrete flume from the Conservation area to a point below Briarcliff Road. The Town rejected that proposal because of the impacts this flume would have on the neighborhood, and requested an alternative. *After studying numerous alternatives* to straighten and widen the channel, the Corps finally returned in 1991 to state that none of the proposals, including the flume, would meet new cost benefit guidelines.**

a. The Weaver Street-Bonnie Briar Area. Along Bonnie Way, Bonnie Briar Lane, nearby parts of Weaver Street, Sheldrake Place, Sheldrake Avenue, Brookside Place, and parts of Forest and Rockland Avenues, substantial flooding in homes has been common during periods of heavy rain in recent years. During the last five years, this has been reduced by the computerized valve at the Reservoir.

b. The Brookside Drive Area. The same type of problems have been particularly acute for residents of this hillside area. In addition, at the foot of Brookside Drive, Gardens Lake was completely filled with silt from upstream erosion, a condition that further aggravates flooding and seriously impairs the beauty of this local landmark. In 1989-90, the Town had Gardens Lake dredged, and experienced great difficulty and excessive costs in disposing of the dredge spoil because of Gardens Lake's proximity to the New England Turnpike (I-95). At this time, Gardens Lake is again noticeably filling with siltation from upstream development and is an example of the price that must be paid--in taxes as well as inconvenience to residents--for unsolved problems and the need for intermunicipal watershed management and flood control.

In both cases, flooding results from the reduction of the flood plain upstream in recent times and from the emptying of storm drains from higher ground nearby. Some relief from these problems has been gained since the Larchmont Reservoir, after it ceased to be used for water supply in 1975, became available for temporary storage of runoff during heavy rains. The upper reach of the West Branch of the Sheldrake arises in White Plains, passes through a corner of Scarsdale and New Rochelle and drains into Sheldrake Lake (upper reservoir). From there it passes through a flood control valve or over the spillway during heavy, prolonged rains, and continues through Goodliffe Pond and over its spillway, and then courses through a section of the Town previously described as Gardens Lake. It later joins the Mamaroneck River in the Village of Mamaroneck. Sheldrake Lake and Goodliffe Pond, like Gardens Lake, are shoaling due to siltation and will soon require dredging. Sheldrake Lake is especially important for flood control.

This watershed consists of approximately 3,000 acres north of the reservoir and an additional 3,000 acres south of the reservoir. Both sections of the watershed are steep-sided and rapidly draining suburban residential areas. This topography adds to possible flash floods which have been the experience of the residents of the area.

In 1975, when the upper reservoir ceased to be used as a water supply, tentative use of the blowout valve at the dam as a flood control device was begun under the guidance of the Town Engineer with the cooperation of the Village of Larchmont Mayor and Board of Trustees since the Village owns the property. This appeared to be successful, but the approximately 75 year old valve was a source of worry since its failure seemed quite probable. In 1981, a new valve was installed in the blowout line and the use of the upper reservoir as a flood control device was tested. It succeeded but it required manual operation, and storms that came in with little or no warning were still hard to manage if staff was not assigned over weekends or holidays. During 1989, a motor was added to the valve to make it easier to operate, and on April 15, 1990, a computer based controller was added to the system which senses water level in the upper reservoir and adjusts the valve for nearly optimum detention. The system continues to evolve with the addition of an external supervisory computer which, in heavy storm events, will take into account rainfall and stream levels, and augment the function of the smaller internal computer.

However, the flood problem is far from solved since it arises from both branches of the Sheldrake River. A hydrological study of the West Branch of the Sheldrake watershed, completed in 1985 by the Westchester County Soil and Water Conservation District at the request of the Friends of the Reservoir and the affected municipalities, is expected to be a major resource in planning a more adequate solution. The action of the Village of Larchmont in October 1984, dedicating the property in perpetuity to specified public uses including flood control, has made it possible to proceed with such plans with increased confidence. A full study and analysis of drainage in the entire Sheldrake basin, however, remains to be undertaken.[7]

4. The East Creek - Gut Creek Watershed

a. East Creek drains a smaller, almost completely built-up watershed between the Premium and Sheldrake systems. Once an open waterway, it is now enclosed along nearly all its length. It rises in the lower Unincorporated Area between the Pine Brook and Sheldrake systems, flows under the Thruway, the railroad, Vanderburgh Park,

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[7] **The LWRP supports the County plan for a retention basin on the East Branch of the Sheldrake River just above Rockland Avenue. However, land development since the County's 1945 study points out the need to expand the Hydrologic Study data prepared in 1990 by Malcolm Pirnie, Inc. for the Town's Draft Generic Environmental Impact Statement for the Conservation Recreation (CR) Zone. While much of the groundwork was probably done in the Study, more needs to be learned of what can be done upstream at each confluence point which would involve the County and other local governments.**

Hall Avenue and the Post Road, reappears for about 100 yards as an open stream behind an automobile dealer's car park, then enters a large pipe which runs beneath the Hommocks School playing field. There it is joined by a storm water pipe, which drains a portion of the Boston Post Road and Gut Creek, a smaller stream which also flows largely underground and drains areas to the north and east including the Hampshire Country Club golf course lying within the Village of Mamaroneck, then flows under the lower end of the Hommocks field. The two streams empty through outfalls into the Hommocks Marsh and Little Harbor Sound.

A monitoring report to the Conservation Advisory Commission in the summer of 1984 concerning East Creek and the Hommocks Marsh showed these waters to be severely polluted by fecal and coliform contaminants and waste oil. A follow-up study conducted in the summer of 1988 revealed continued high coliform and fecal counts. This led to an investigation by the Westchester County Health Department and the Village of Larchmont, which found broken sewer lines at Nassau Road. Larchmont repaired 400 linear feet of 18" diameter pipe.

Since 1984, oil pollution and litter have been mitigated by the addition of controls placed by Mamaroneck and Larchmont during the renovation of two adjoining automobile dealerships, including the use of silt traps, which have the capacity of removing oil and grease, to deal with surface water runoff and an extensive evergreen berm to buffer the open section of East Creek. (A green belt is one of the best known methods for filtering pollutants and keeping litter from entering waterways.) Although conditions have improved through the efforts of local advisory commissions and the L.I.F.E. Center volunteers, especially on Beautification Day, continued vigilance of the area is important to ensure that mitigation measures are maintained.

The CZMC hired a consultant to inspect East Creek and recommend protective measures. The consultant's recommendations were forwarded to the Town Board. It proposed installation and bimonthly maintenance of a temporary trash screen, followed by permanent installation of a fixed sediment curtain and floating oil boom to be periodically maintained by removing accumulated trash and renewing absorbent boom material. Since Larchmont maintains an absorbent boom for the Premium area, the Mamaroneck Board agreed in 1992 to support this project.

In addition to the adverse impact on the Hommocks Marsh (see below), the condition of the open stretch of East Creek was a small but typical case of urban pollution and casual litter turning a pleasant and ecologically valuable area into a small wasteland. Although not close to any residential area, the open section of the creek is on the edge of Flint Park and could be a pleasant place for leisurely walking, jogging, birding and nature study. Further progress was made on the Larchmont side of the creek in 1990-91 under the leadership of the Larchmont Parks and Trees Committee and with the support of nearby residents and the CZMC. The Village Department of Public Works removed dead trees, saplings and rubble and then planted indigenous trees and shrubs to help stabilize the creek bank and help screen the dealership site from nearby residential streets.

b. Hommocks Marsh. East Creek and Gut Creek take on added importance from the presence of a salt marsh in a sheltered tidal inlet. From 1972 to 1975, Hommocks Marsh and other salt marshes in the Larchmont-Mamaroneck area were the subject of intensive study by Drs. James Utter and Paul Steineck. Their findings showed that the Hommocks Marsh had undergone major changes as a result of siltation and sanitary landfill in the construction of the Hommocks playing field, plus chemical and sewage pollution (the fecal coliform count exceeded State guidelines for bathing beaches), and that the production of algae and other organisms had dropped as the succession from low to high marsh proceeded. Still, however, they found the marsh functioning at a rate comparable to others more remote from suburbia, and making a net contribution to the ecosystem of Long Island Sound.

As was explained in Part N, the Hommocks Marsh and adjacent areas merit the recognition they received as a Critical Environmental Area. This area is also, and if properly managed can increasingly be, a pleasant setting for passive recreation. Moreover, the marsh and its ecosystem afford a superb educational resource convenient to the Hommocks School. Unfortunately, because Little Harbor Sound drains a residential area with unsolved sewage problems and is crossed by two major highways, the marsh receives steady doses of biological and chemical pollution. The health of the marsh depends on effective steps to control all types of pollution in this watershed.

c. Little Harbor Sound. This narrow tidal inlet from Larchmont Harbor extends eastward to the Hommocks Marsh. Its western end is the site of 32 attractive waterfront homes, most of them with dock facilities, along Quarry Road, Bishop Place, Shore Drive, Old Colony Road, Lindsley Drive, and Spanish Cove Road. In 1978, homeowners in this

neighborhood financed a dredging project to remove silt and debris which had made Little Harbor Sound un-navigable. By arrangement with the Town, the dredge spoil was deposited as landfill to rebuild the Hommocks School athletic field.

This locality suffers from several interacting problems: continued siltation, pollution by raw sewage and other wastes, and tidal flooding.

(1). The siltation problem arises partly from normal tidal scouring of the banks of Hommocks Marsh, but mainly from silt and debris carried downstream to the East Creek and Gut Creek outfalls and by several large concrete storm drain outlets at the foot of Flint Park and the Hommocks playing field. There are no catch basins to trap this material, which consequently builds up to block the inlet. Since the 1979 dredging, re-siltation nearest the storm drain outlets has reached a depth of three to four feet, already largely nullifying the effect of the dredging.

(2). The pollution problem has three main sources. The first is the runoff from commercial establishments and traffic along the Post Road which reaches this area mainly through the outfall pipes at the foot of Hommocks Field. Progress has been made in achieving abatement of nonpoint pollution on the Post Road both with respect to renovated commercial establishments and the replacement of an aging facility with multiple-family units which comply in all respects. The second is runoff from the Larchmont Village leaf composting area at the south end of Flint Park adjoining the marsh. The third problem, raw sewage, comes primarily from a County outfall pipe behind Cedar Island. It is an overflow relief pipe connected to a County-operated pumping station on Flint Avenue. During heavy rains, the New Rochelle sewage treatment plant sheds part of its storm water overload by shutting off the pumps at Flint Avenue, allowing raw sewage to flow into the harbor. To make matters worse, the outfall pipe terminates near the shore in an area regularly used for swimming, boating and fishing. Malfunctions in the pumping station are frequent. Another source of sewage pollution is a sewer line which crosses Little Harbor Sound between the Hommocks Marsh and the Hommocks peninsula. It is uncertain whether this line is still active, and if so, whether it needs repair.

This locality's flooding problem, like that along Pryer Manor and Dillon Roads in the Premium area, occurs mainly when extreme high tides coincide with high winds and rain. Water then comes over the seawalls, enters lawns and basements, and in some places isolates

homes until it subsides. A short-term solution to these interacting problems would include some purely engineering steps such as installation and maintenance of catch basins upstream from the storm water outlets nearby, repair and relocation of sewage outfall pipes, and periodic maintenance and dredging of Little Harbor Sound. A full solution, however, should include more far-reaching steps, suggested elsewhere in this program, to control flooding, erosion, siltation, and sewage and other forms of pollution.

5. The Harbor Area

The prized serenity of Larchmont Harbor (the eastern portion of which lies in the Village of Mamaroneck), and its neighboring bays and inlets, both as a residential setting and as a recreational resource, especially for yachting, swimming, and fishing has been emphasized above. Threats to swimming and fishing from water pollution are dealt with elsewhere in this inventory. The harbor has no commercial traffic and very little transient traffic; most boats moored there are owned by local residents or yacht club members. However, the harbor's serenity can be marred by speeding watercraft or the unwelcome sight of debris floating in the water or washed up on shore.

There are two problems that affect yachting. These are, first, siltation and other problems affecting navigation; second, a concern that the harbor could be better managed to control vandalism, recklessness, and discharge of waste and litter from pleasure boats, although the yacht clubs are educating their members to prevent such discharges.

a. Navigation and Dredging. In 1983, the Village of Larchmont participated in a Westchester County study of dredging in Sound shore harbors. In addition, in June 1983 two members of the Coastal Zone Management Committee made an on-the-spot survey, at extreme low tide, of conditions in Larchmont Harbor, Little Harbor Sound, and Horseshoe Harbor. *Salient conclusions are:*

-- Large areas of Larchmont Harbor show definite silting, which has built small deltas near Little Harbor Sound and other outflow areas. Maintenance dredging in some areas will be necessary to maintain the harbor's present standard of usage. Safe navigation would also be helped if a number of submerged rocks near the surface along the western shore were clearly marked for better visibility.

-- Little Harbor Sound, as noted above, already shows heavy silting which has largely nullified the 1979 dredging. Construction and regular servicing of catch basins in the storm drains would greatly reduce,

though not necessarily eliminate, the need for periodic dredging to keep the inlet navigable.

-- In Horseshoe Harbor, which includes the sandy Manor Beach, the tidal drift from the beach to the yacht landing area requires dredging about every 10 years to allow deeper-draft boats to reach the dock. A recent 30-foot extension of the dock will not obviate this need.

b. Harbor Security. For most purposes, State law assigns responsibility for law enforcement in Long Island Sound to the State police. The Westchester County police also have jurisdiction as far as the County boundary, which runs parallel to the shore in mid-Sound. The U.S. Coast Guard is responsible for vessels in distress and for apprehending boats suspected of carrying illegal cargo. The Department of State advised that the Village has jurisdiction of the water off its shore within 1,500 feet, and that the Town may not regulate vessels within 1,500 feet of the Village shore.

These provisions of law do not quite fit the realities in Larchmont Harbor. The County police are not equipped to patrol the waters of the Sound. The nearest State police barracks is far inland in Hawthorne, a road distance of about 20 miles. There are no State police launches on duty along the Westchester Sound shore. State police response to calls for help in the harbor, not surprisingly in these circumstances, has been described as slow. Emergency calls to the Coast Guard station at Eaton's Neck (19 miles away at Northport, Long Island) also often bring a slow response. Thus the main burden of maintaining order and security, and dealing with all but the most serious violations in Larchmont Harbor, rests either on the Larchmont Village police or on the yacht clubs.

The Larchmont police, whatever their legal jurisdiction, are not equipped for such duty. They respond to calls for help in suspected crimes in the harbor, but have no launch and depend for water transportation either on private boats or on the Village of Mamaroneck police launch and Bay Constables. As a practical matter, therefore, policing of all lesser violations and the maintenance of security and order often rests with the two yacht clubs.

The Larchmont Yacht Club has developed a plan to deal with emergencies in its area of the harbor, and the Horseshoe Harbor Yacht Club intends to do the same for its area. The two clubs will keep each other informed on harbor security matters as a part of this

process. The Mamaroneck Village Bay Constable patrols the eastern portion of Larchmont Harbor, which lies within Mamaroneck Village.

An overall harbor management plan that concerns itself with current and future problems, such as maintaining the quality of the water, the quality of recreational use, maintenance of the current water uses and the quality of the scenic view, should be carefully pursued so that all users of the harbor can constructively reach agreement on an effective plan.

The CZMC advocated initiating a "Waterfront Protection Program including a Bay Constable Program" in order to provide police coverage in Larchmont waters in case of emergency or accident, for routine patrol services, to enforce existing laws and thereby provide for the safety and well-being of citizens and their property, and to assist in the clean-up of our waterways through education and enforcement of existing federal and state legislation. Village of Larchmont Police Chief Keresey supported the concept of a Bay Constable Program because it would offer the best possible police response time to the boating community. After much discussion, various proposals and numerous public meetings, the Larchmont Board of Trustees recommended that a formal agreement between the Larchmont Village and Mamaroneck Village Police Departments should be established to provide payment per emergency for calls placed through the Larchmont Police Department since the Mamaroneck Department already has a Bay Constable program. The CZMC concerns regarding the clean-up of our waterways would have to be satisfied through public education mainly via the yacht clubs, and reliance on the Coast Guard and DEC to enforce existing federal and state laws.

6. Area-wide Sewage Problems

As has been noted in the discussion of specific problem areas, the frequent appearance of raw sewage in basements, streets and waterways, with adverse effects on both public health and aesthetic values, is closely linked to flooding during heavy storms. Four different ways in which this linkage occurs have been touched on at various points in earlier pages. They can be summed up as follows:

a. It has been a frequent practice for decades in this and other communities for private builders and even municipalities in flood-prone areas to save construction costs by connecting sump pumps, roof drains, street catch basins, etc., not, as the law requires, with municipal storm drains but with the more accessible sanitary

sewer lines. A newly completed Westchester County study of sewers in this and other communities has located many such illegal connections and estimated the cost of correcting them.

At the request of Mamaroneck and Larchmont, Westchester County performed smoke testing to address the problem of infiltration and inflow caused by the illegal hookups mentioned above. Homeowners with illegal hookups were notified and their cooperation was requested; however, not all of these have been eliminated. In Larchmont, the County reported 207 illegal hookups; 157 of these have been corrected (76%), and the Village continues to campaign for 100% compliance. As of 1991, no stringent enforcement measures were taken in Mamaroneck. Causing further complication is the fact that there are areas in the Town where no storm drains exist.

b. Many sanitary sewer lines receive storm water through unrepaired leaks and breaks, or (when laid close to or under watercourses, as some sewer trunk lines are) through sewer vent holes. Major rehabilitation projects in both the Mamaroneck and Larchmont correcting municipal infiltration and stormwater inflow problems were undertaken in 1987, 1988 and mid 1989, and have been completed. Sewer repairs in 1987 and 1988 cost the Town $2.2 million ($1.5 million was paid by the state and federal governments). Larchmont spent $415,000 on this project with $88,906 offset by State and federal monies. Extensive replacement by Westchester County of its sewer lines from Weaver Street to Gardens Lake (1988-89) reduced the sewage backup problem. Also replaced were sewer mains along Monroe and Ocean Avenues. Mamaroneck installed a new pumping station as well.

c. Because the New Rochelle sewage treatment plant is operating above its design capacity, it cannot accommodate the storm-swollen volume entering the sewage trunk lines, and must resort to throttling down pumping stations and intake valves from sewers in Larchmont and the Unincorporated Area, leaving the sewage-contaminated storm waters to back up into basements, streets, open waterways or bypassing directly to Long Island Sound. These polluted overflow problems became so severe that, in 1986, the State Department of Environmental Conservation placed the New Rochelle sewage treatment plant, which services the Town, Larchmont, New Rochelle and Pelham Manor, under a moratorium, directing the Westchester County Health Department to no longer approve any sewer line extensions tributary to the New Rochelle plant. This moratorium is still in effect.

d. The growing number of sanitary sewer lines from upstream communities, traversing our area on their way to sewage treatment along the Sound, further aggravate the problem. Despite installation of pumps, piggyback lines and alternate routes, some of these remedial sewer lines are still unable to handle the peak flow during rainy periods, and back up into our streets when they become surcharged.

Not all our sewage problems, however, are related to stormwater. Three other problems are:

e. Inadequate sewage treatment in the County's Mamaroneck treatment plant. This plant was recently updated (1993) to secondary treatment. However, further updating may be desirable to reduce the amount of nitrogen flowing into the Sound. Aggressive action is still necessary to reduce stormwater infiltration and inflow into the sewer system throughout the Mamaroneck district to prevent raw sewage from entering the Sound.

f. Suspected leakage from on-site (septic) residential sanitary systems. Some homes in this community are still served by these systems even though the entire coastal area is within public sanitary sewer districts. Many such systems have been found to be unreliable, overloaded and pollution-prone. Septic systems are the purview of Westchester County. It is highly unlikely that a local municipality can impose its own restrictions on their use.

g. Finally, it should be recalled that land-based human sewage is not the only source of biological pollution. Pleasure boats off-shore frequently discharge their sewage in nearby waters -- a practice which seems to result partly from ignorance of the law and partly from lack of a clearly located enforcement responsibility (see part U 5 b. above). Plans are in the works for installation of pumpout stations.

In addition, local dog owners, in spite of Village and Town sanitary ordinances and the threat of fines (yet to be applied), continue to leave canine excrement on streets, sidewalks, parks and conservation areas throughout the community. Enforcement of existing laws against this practice is long overdue.

V. Long Island Sound Study

The National Estuary Program of the Clean Water Act was created in 1984 in order to study and protect coastal environments. The Long Island Sound Study (LISS) was begun in 1985 under the administration of the Environmental Protection Agency with

an annual million dollar budget to develop a workable Comprehensive Conservation and Management Plan (CCMP) for the restoration and management of the Sound. The five problems that the LISS concentrated on were hypoxia, toxic and pathogen contamination, floatable debris and the effects of pollution on the marine life of the Sound.

By 1991 much of the research and field work was completed, and it was clear that hypoxia, or low dissolved oxygen levels which occur during the summer months, is the most pressing water quality issue. As previously noted, the lowest levels of dissolved oxygen occur right off our shoreline in the western basin of Long Island Sound. Furthermore, researchers determined that nutrient pollution is the probable cause of hypoxia. Man-made sources of nutrients which exceed natural amounts comes from human waste, from sewage treatment plants and septic systems, increased stormwater runoff (and combined sewer overflows) caused by land development in the watershed, over-fertilization of lawns and agricultural fields and acid rainfall. Well over half of the problem comes from point (end-of-pipe) sources, predominately sewage treatment plants. The remaining part of the problem can be traced to nonpoint sources.

A computer model of the Sound, also part of the LISS, is nearing completion. Its purpose is to recommend, with as much accuracy as possible, those particular parts of the Sound that should take priority for sewage treatment plant upgrades.

Remedial actions were begun by the fall of 1991 with the setting of nitrogen base line loads at sewage treatment plants by the New York State Department of Environmental Conservation, the Connecticut Department of Environmental Protection and the federal Environmental Protection Agency to keep nitrogen discharges at the 1990 level. The CCMP was released in final form in 1994.

W. Area-Wide Causes and Cures of Interacting Flood, Siltation and Sewage Problems.

The threats to different parts of our three main watersheds from flooding, siltation and sewage overflow can be reduced to some extent by specific steps, many of them suggested in earlier sections, tailored to each local problem. In other respects, however, these problems are so wide-based geographically, and so interrelated functionally, that they cannot be solved independently or on a narrowly local scale. In large measure, these problems have arisen over many years from the natural tendency, here and in other communities, to widen the tax base through rapid development while economizing on tax-supported infrastructure. The risks of this course remain and require vigilance to maintain and preserve the residential attractiveness and the ecological integrity of the Larchmont-Mamaroneck coastal zone. Effective action on these interrelated problems, both within our two municipalities and in cooperation with neighboring municipalities and higher levels of government, is a major theme in later sections of this program.

X. Other Area-Wide Pollution Problems

1. Water pollution. Like communities in any metropolitan area, Larchmont and Mamaroneck receive water pollution, other than raw sewage discussed above, from many sources. Most of these are either far distant, such as industrial sources of acid rain, or are diffuse non-point sources nearby, especially from motor vehicle traffic on local streets as well as on the major highways that traverse this area. Pollutants from all these sources include some highly toxic compounds which only sophisticated monitoring can identify and quantify. At present our local monitoring resources do not cover such substances, nor do we receive regular information about their presence in this area from higher levels of government. This is a potentially serious gap in the flow of information needed to assure water quality in our area.

   Among the many nearby point and non-point sources of water pollution, there may be substantial room for improved water quality control (see Section V - Surface Water, Erosion and Sediment Control law). Sources of water contaminants vary widely in magnitude and in the likely costs and benefits of control; they include:

   -- Land disturbing activities.

   -- Scattered incidents, such as the furtive and illegal dumping of waste oil, paint, etc., into storm drains and streams.

   -- A number of antiquated septic discharge systems in our area which have a limited life expectancy and a high pollution potential.

   -- Drainage of chlorinated water and filter backwash from swimming pools.

   -- Underground fuel tanks and pipes subject to leaks.

   -- The use of sand, salt or other melting agents on icy roads.

   -- Use of fertilizers and pesticides on lawns, golf courses and trees on both municipal and private property.

   It should be borne in mind that the weakness of tidal flushing action in our sheltered coastal waters aggravates the damage done by pollutants from any source to environmental, recreational and scenic values in this area. Since an irreducible minimum of pollution from highways and other nonpoint sources, and from small, hard-to-control point sources, is probably inevitable, it is all the more urgent to control all the sources that can be controlled

cost-effectively, lest the total water pollution burden rise to unacceptable levels.

2. Air and noise pollution. Control of water pollution requires attention to air pollution as well, since the latter, aside from its direct damage to air-breathing organisms, also enters ground and water as precipitation. Air pollution in our area has many chronic causes, both near and distant, most of them largely beyond our control or influence. Some local point sources, it is true -- notably illegal smoke emissions from building incinerators -- can and should be reduced by more energetic use of County Health Department police powers.[8] A local monitoring network to spot and report violations would contribute importantly to enforcement.

In our view, however, a more significant air pollution problem, and one which may prove receptive to our influence, comes from the heavy overhead traffic of aircraft approaching LaGuardia Airport. Since this same traffic is also a main source of noise pollution in our community, these two kinds of pollution can be considered together.

The final approach to commonly used Runway 22 at LaGuardia carries aircraft directly over Larchmont Harbor. Many incoming flights follow this flight pattern. While passing over Larchmont, the planes are at an average altitude of 2,000 to 3,000 feet, and engines are cut back as the aircraft descend. Each plane, during its passage over our area, releases carbon and unburned kerosene based pollutants, which fall on the harbor area and nearby homes. Their most visible manifestation is a blackish, oily film which gathers on docks, boat decks, lawn furniture, parked cars and other exposed surfaces. They place an additional burden on human health and organic life in the area.

These same aircraft also make an inordinate amount of noise as engines are throttled back or forward during adjustment to the final approach pattern. When the weather is bad and runway 22 is in use, aircraft pass over Larchmont about every 40 seconds; moreover, heavy clouds in bad weather reflect and amplify the sound. At such times, conversations have to be suspended while aircraft are overhead.

Residents have tried several times through our elected representatives to induce the FAA to re-route the airplanes over the Sound, which we understand is the normal approach route for LaGuardia Airport. Beyond making courteous replies, the FAA has brought us little or no relief. We

[8] In 1992, Mamaroneck passed a law banning burning in apartment house incinerators by mid year 1994.

intend to pursue this major problem of air and noise pollution in cooperation with nearby affected communities.

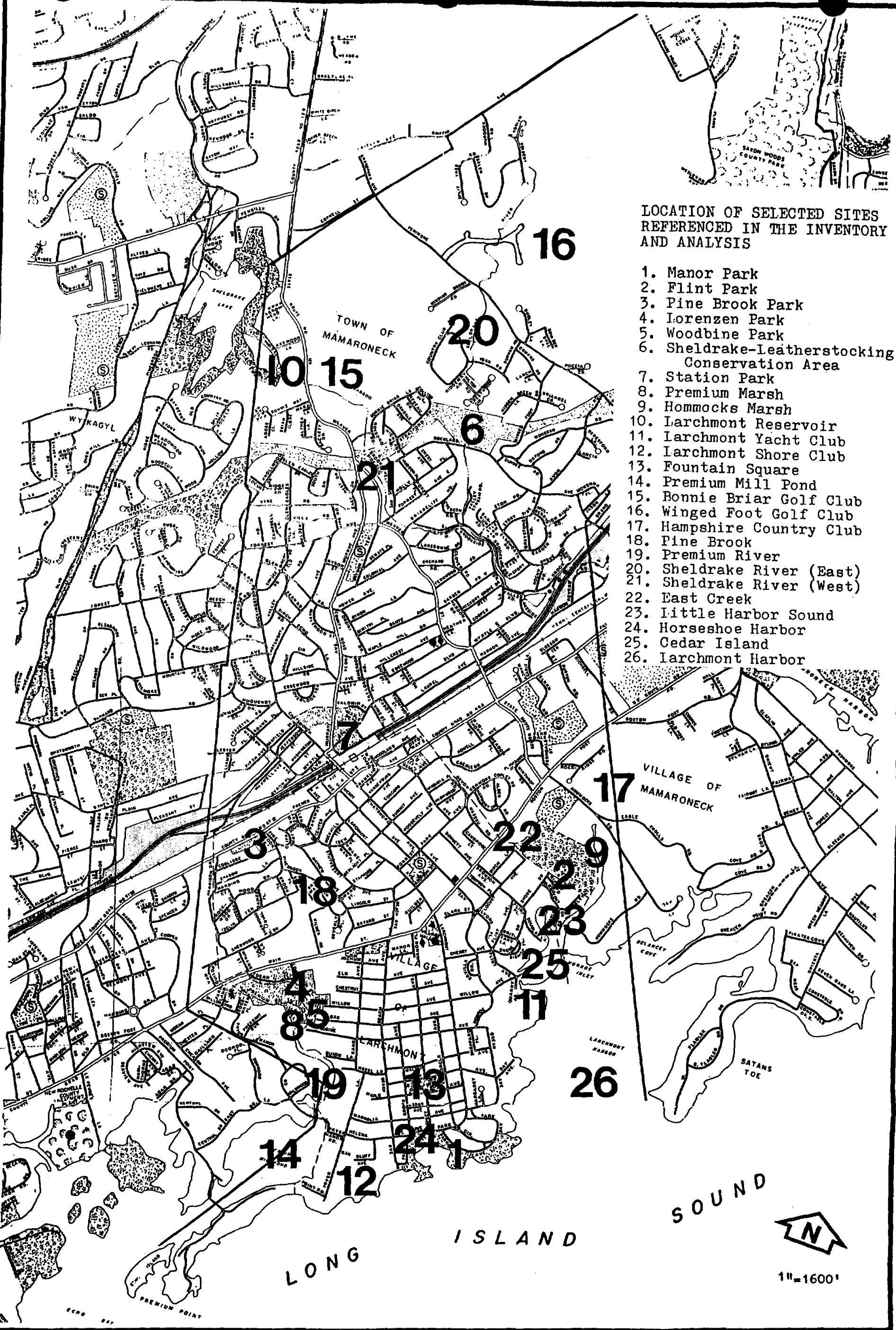
Another significant source of air and noise pollution in our community is the heavy vehicular traffic on the Boston Post Road and I-95, the New England Thruway, especially the latter. Noise from these sources can be acutely unpleasant for their nearest neighbors. Municipal efforts in past years have produced some action by the State to mitigate Thruway noise, and plans for construction of new noise barriers along the Thruway in this area were announced in 1986; however, as of early 1993, only a very small section of the Thruway which is in close proximity to Gardens Lake received noise barriers. The progress of this project continues to be followed locally with much interest. Meanwhile, the noise problem remains.

The roar of power boats speeding through the Sound's waters is jarring to those who seek to find renewal as they sit or walk in Larchmont Manor Park, or nearby areas, and look out at the open water. This noise pollution disturbs wildlife as well, and power boats can cause further degradation of wildlife habitats. While there may be little that can be done about this problem locally, the State should require that recreational boat engines meet the same noise emission standards that automobiles must meet when it requires the latter to be equipped with mufflers at all times.

Many smaller sources of noise within our community, mainly from power machinery such as jackhammers, chain saws, power mowers, snow and leaf blowers, etc., add up to a considerable din at times, creating a widespread demand for stronger regulation. In 1985 the Village of Larchmont responded by enacting a law regulating noise from commercial gardening machinery. In 1990, Larchmont revised the law to control hours of operation and to mandate that all internal combustion engine driven gardening equipment be fitted with mufflers. Regulation of lawn maintenance equipment by the Federal government minimizing emissions would help with this problem.

3. Litter and dog waste. No pollution problems are more pervasive, or seemingly more deeply rooted in suburban and urban mores, than litter and dog waste in public places. Sources of litter in our area are various: children and adults, municipal garbage trucks and commercial vehicles, fast-food stores, wind-scattered newspapers, etc. Ordinances decreeing fines for littering are widely ignored and only spottily enforced -- understandably, since there are seldom any witnesses to the act. Similarly, local laws requiring dog owners to clean up after their dogs are ignored in many cases and seldom enforced. Thus a minority of offenders creates a deteriorated aesthetic and public health environment which all must endure.

Anti-litter efforts in the community have been substantial and are led by the Village of Larchmont Beautification Committee, the L.I.F.E. Center, and the Conservation Advisory Commission. A conspicuous community effort is the annual Beautification Day clean-up in April, sponsored by the L.I.F.E. Center and the CZMC, and the International Coast Weeks cleanup with participation by students, scouting organizations, and neighborhood groups. Also, waste containers have been placed in parks and on sidewalks by civic organizations and by some businesses as a public service. (Also see use of containment booms on Premium and Hommocks waters.) A more wide-ranging approach to this complex of problems, with careful study of techniques that have succeeded elsewhere, should be an integral part of our coastal zone program.



LOCATION OF SELECTED SITES REFERENCED IN THE INVENTORY AND ANALYSIS

1. Manor Park
2. Flint Park
3. Pine Brook Park
4. Lorenzen Park
5. Woodbine Park
6. Sheldrake-Leatherstocking Conservation Area
7. Station Park
8. Premium Marsh
9. Hommocks Marsh
10. Larchmont Reservoir
11. Larchmont Yacht Club
12. Larchmont Shore Club
13. Fountain Square
14. Premium Mill Pond
15. Bonnie Briar Golf Club
16. Winged Foot Golf Club
17. Hampshire Country Club
18. Pine Brook
19. Premium River
20. Sheldrake River (East)
21. Sheldrake River (West)
22. East Creek
23. Little Harbor Sound
24. Horseshoe Harbor
25. Cedar Island
26. Larchmont Harbor

Local Waterfront Revitalization Program
Village of Larchmont - Town of Mamaroneck

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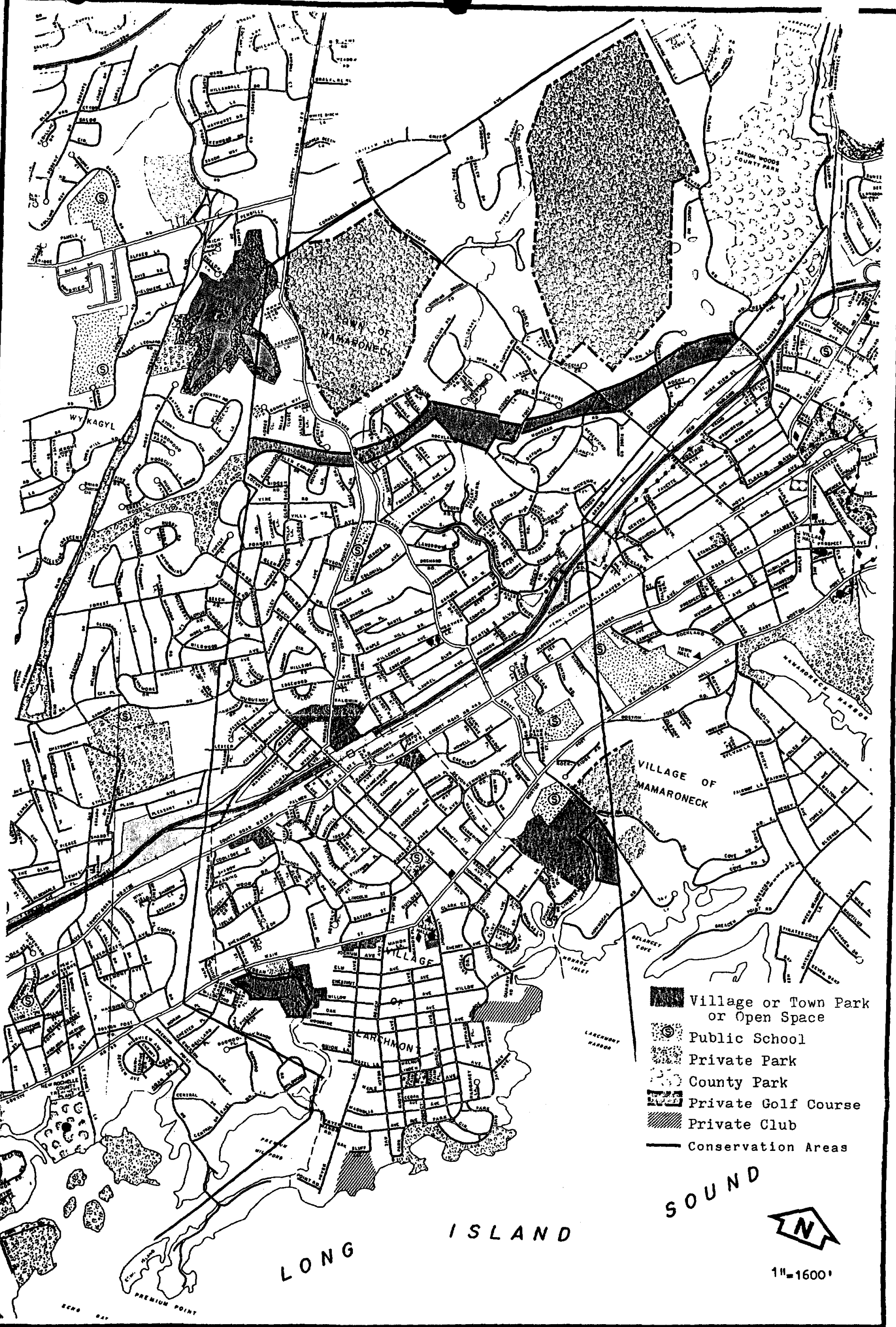
LOCATION MAP

Map No. **3**

This map was prepared for the New York State Department of State Coastal Management Program with financial assistance from the Office of Ocean and Atmospheric Administration, provided under the Coastal Zone Management Act of 1972, as amended.

Federal Grant Number: NA-82-AA-D-CZ068
Date of Preparation: February 1986



Local Waterfront Revitalization Program

Village of Larchmont - Town of Mamaroneck

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EXISTING OPEN SPACE

Map No. **4**

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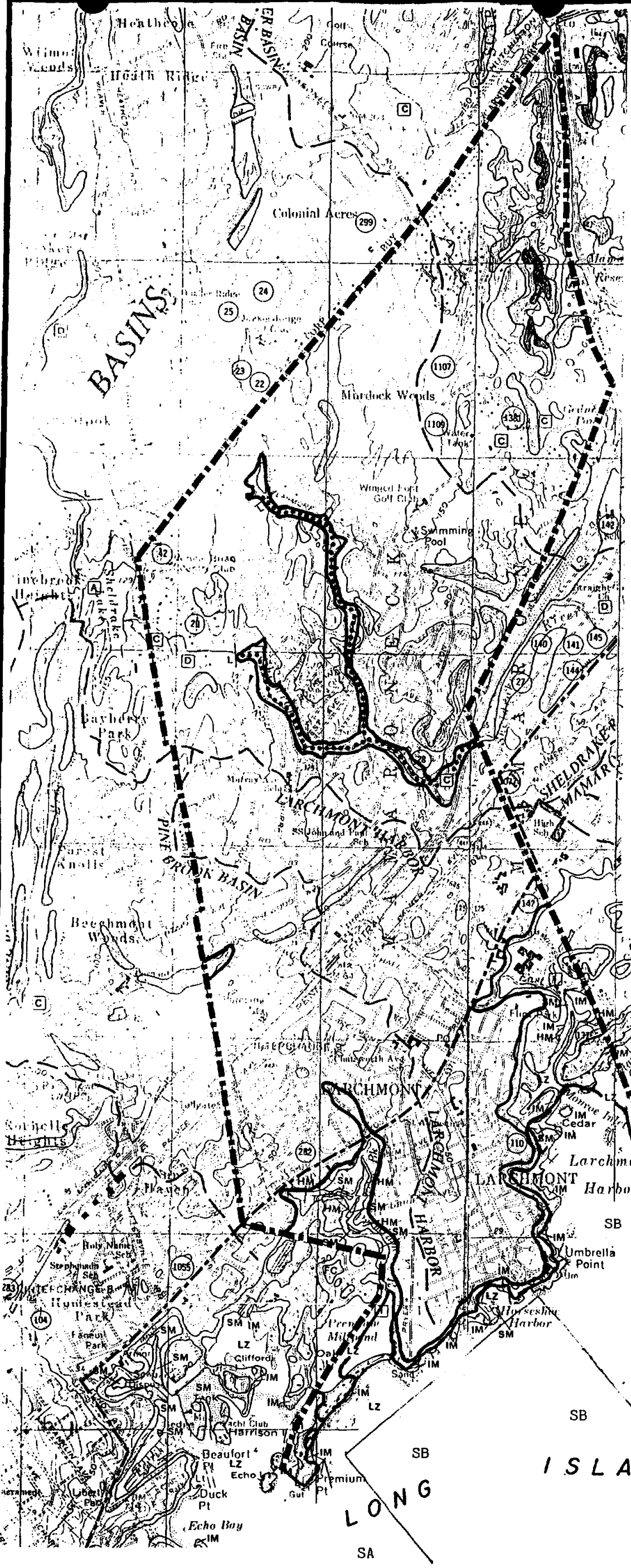

LEGEND

WATER FEATURES

Streams — D

Lakes — A, B

DRAINAGE DIVIDES

Major divides separate groups of basins

Minor divides separate individual basins

CLASSIFICATION OF WATERS

BEST USAGE	Fresh Water						Saline Water				
	AA	A	B	C	D	I	SA	SB	SC	SD	I
Human Consumption											
Food Processing											
Primary Contact Recreation											
Secondary Contact Recreation											
Propagation of Aquatic Life											
Growth of Aquatic Life											
Survival of Aquatic Life											
Propagation of Fish Life											
Survival of Fish Life											
Trout Propagation & Survival											
Shellfishing for Market Purposes											

See DEC (Sec. 701 & 702 NYCRR for Definition and Standards

TIDAL WETLANDS

Formerly Connected	FC
Coastal Fresh Marsh	FM
High Marsh or Salt Meadow	HM
Intertidal Marsh	IM
Coastal Shoal, Bar, Mudflats	SM
Littoral Zone	LZ

FLOOD HAZARD AREAS

HUD Phase II 100 year frequency flood elevation established (A-Zone)

HUD Phase I or other preliminary study

Floodway

Limit of detailed study

NOTE: See Map 6 for more detailed delineation of Coastal High Hazard Areas and Tidal Wetlands.

Source: Westchester Planning Department "Environmental Atlas"

Local Waterfront Revitalization Program

Village of Larchmont - Town of Mamaroneck

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TIDAL WETLANDS, WATERSHED BOUNDARIES AND FLOOD HAZARD AREAS

Map No. 5

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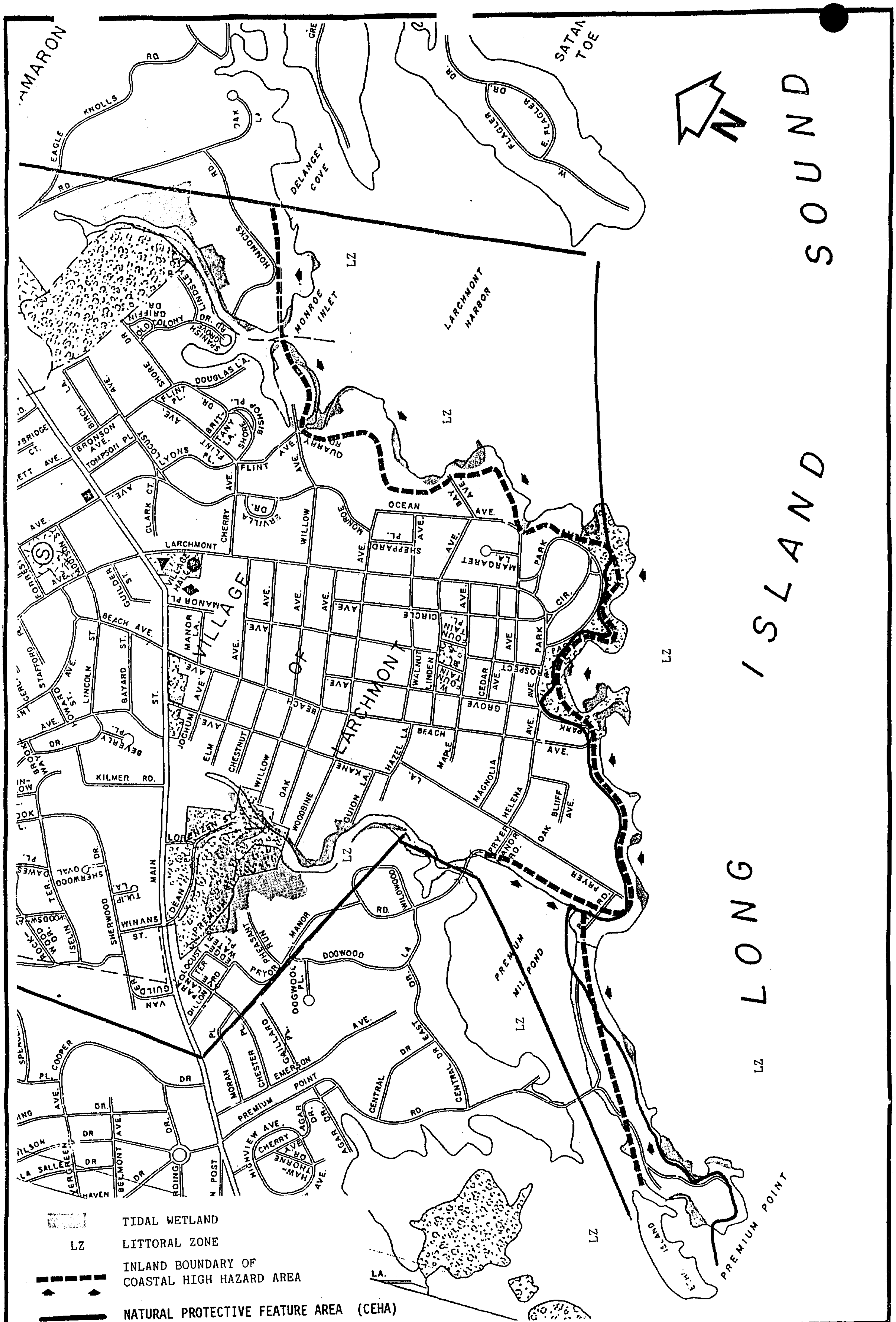

Local Waterfront Revitilization Program

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COASTAL HAZARD AREAS

Map No. 6

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