NORWALK COASTAL AREA MANAGEMENT PROGRAM

DRAFT FOR DISCUSSION
November, 1981

NORWALK PLANNING & ZONING COMMISSION

This Document was financed in part by a grant through the Office of Coastal Zone Management National Oceanic and Atmospheric Administration of the U. S. Department of Commerce under the Coastal Zone Management Act of 1972 and was prepared in cooperation with the Connecticut Department of Environmental Protection's Coastal Area Management Program.

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Richard Carpenter, South West Regional Planning Agency
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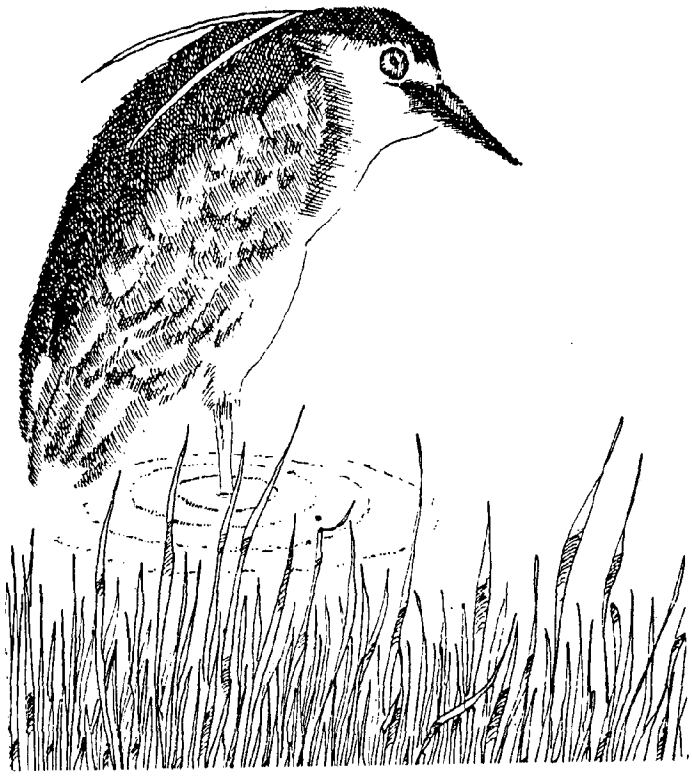
I. INTRODUCTION

- The Connecticut Coastal Area Management Program
- The Coastal Area and Planning
- Norwalk's Coastal Area Planning Strategy



THE CONNECTICUT COASTAL AREA MANAGEMENT PROGRAM*

The Connecticut Coastal Area Management Program, established in August, 1974, is operated under the auspices of the Federal Coastal Zone Management Act (1972). This legislation passed by Congress in response to a recognized need for wise planning and resource management in the Coastal area, gave the nation's thirty-four coastal states and territories the authority and funding to start programs. Although program participation is voluntary, all coastal states have established programs.

Before the establishment of Connecticut's coastal management program, use of coastal resources was already publicly regulated. However, in many cases, multiple approvals at municipal and state levels are required. The State's Coastal Area Management Program is designed to ensure that during the various review processes all government branches evaluate a project's coastal impacts under a common set of policies.

The decision to establish a common set of review policies to be used by existing management and regulatory agencies, rather than establish a new regulatory authority evolved from numerous studies and public meetings. Use of existing agencies eliminated a need to establish new regulatory juristiction. Moreover, it provided for the review of project impacts on coastal resources and future water dependent development opportunities by all regulatory, planning, and development authorities. Existing regulatory procedures were altered only to ensure consideration of coastal impacts. Use of common review policies reduced fragmented and uncoordinated decision making. Finally, if the State's program receives reduction in the number of conflicts with federal regulatory and development decisions.

In 1978, the State's General Assembly, after several public meetings and hearings, enacted the Connecticut Coastal Area Management Act (Public Act 78-152) which established a coastal boundary, broad goals and policies, and a Legislative Study Committee on Coastal Management. The Study Committee, after ten public meetings, recommended that the 1979 General Assembly consider the shared municipal-state approach with voluntary revision of municipal Master Plans and zoning regulations and mandatory municipal review of coastal projects. In 1979, the Coastal Area Management Act was amended according to these recommendations (Public Act 79-535). The state's Coastal Area Management Act was implemented on January 1, 1980.

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*State of Connecticut, Department of Environmental Protection, Coastal Area Management Program. Connecticut's Draft Coastal Management Plan (Hartford, CT: State of Connecticut, 1979).

The Coastal Area and Planning

The Coastal area is that region where terrestrial activities impinge upon the marine environment, marine resources, and marine activities and where marine activities impinge on the environment, resources, and activities of the land. According to the State's CAM legislation, the coastal area is "bounded on the seaward side by the limit of the state's jurisdiction in Long Island Sound (and) on the landward side . . . bounded by the continuous line delineated by a one-thousand foot linear setback measured from the mean high water mark in coastal waters, or a one-thousand foot linear setback measured from the inland boundary of state regulated tidal wetlands, or the continuous interior contour elevation of the one-hundred year frequency coastal flood zone, whichever is farthest inland".*

In spite of this legal definition, the coastal area means different things to different people. To the environmentalist and ecologist, the coastal area is a region of high biological productivity and many biological and chemical processes. Here are unique habitats such as marshes, mud flats, and tidal pools. To the economist, the coastal area is a productive region. Here people produce industrial goods and services, harvest food from the sea, and relax with water-based recreation. To others, the coastal area may be space, nature, property, capital, deity, or fatherland.

Regardless of the definition that anyone person or group chooses, the coastal area is a physically and increasingly market scarce resource. The problem is one of allocation-can a method be established to allocate an essentially fixed supply of coastal area resources among the diverse and expanding demands of the public and private sectors?

Coastal area planning is the opportunity to prepare a long-range, holistic statement which guides future land use. The basic tools are the experiences of the past and present, projected needs, and the existing coastal resource base.

Norwalk's Coastal Area Planning Strategy

To prepare this Master Plan for the coastal area, Norwalk's Planning and Zoning Commission employed the basic strategy recommended in the State's "Model Municipal Coastal Program".*

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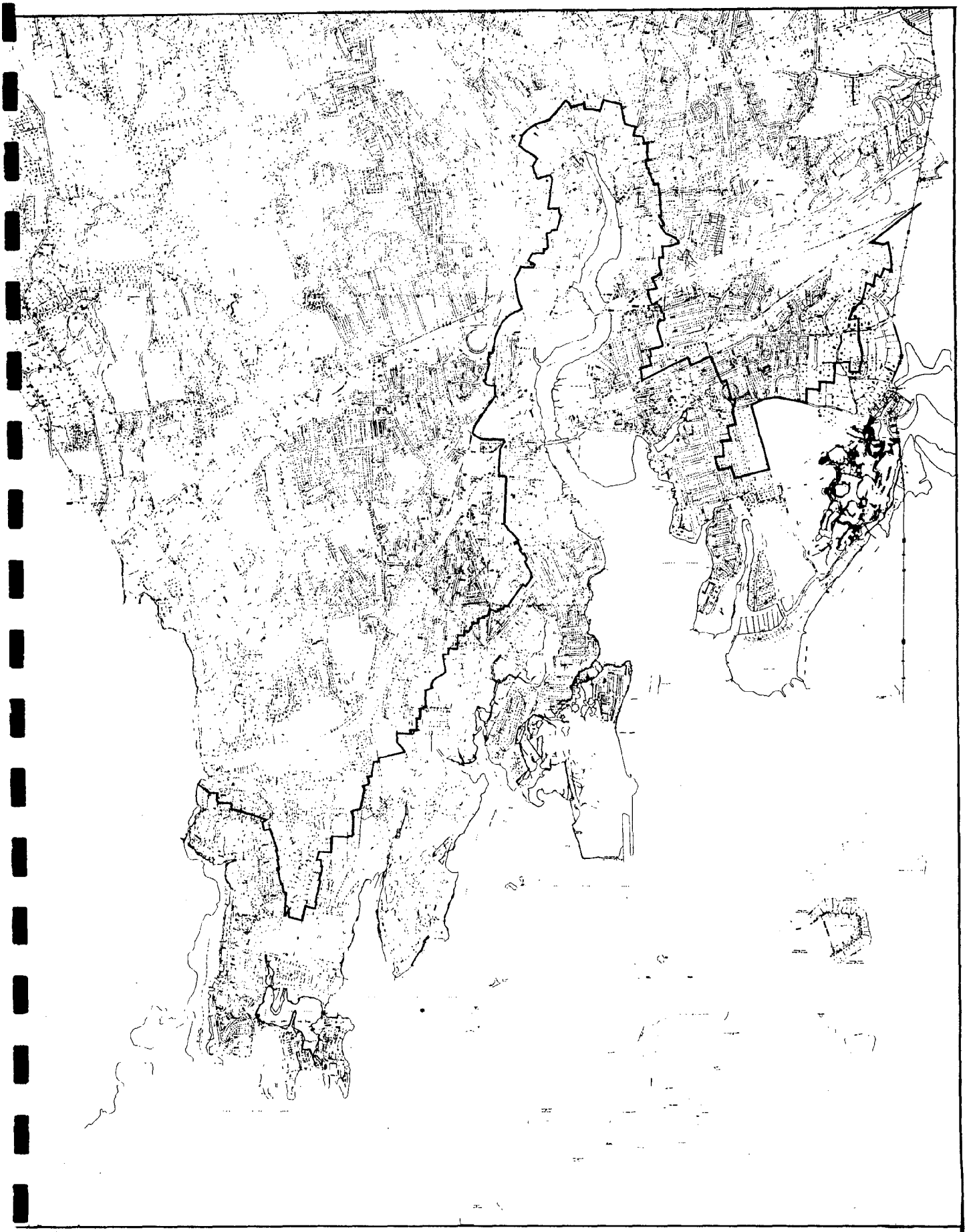
*State of Connecticut. State of Connecticut Coastal Management Program and Final Environmental Impact Statement. (Washington, D.C., U.S. Department of Commerce, 1980), p.s-1.

*State of Connecticut. Department of Environmental Protection. Coastal Area Management Program. Model Municipal Coastal Program. Planning Report 28. (Hartford, CT:State of Connecticut), January, 1979.



COASTAL MANAGEMENT PROGRAM

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

FEET 500 0 1000
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The strategy employed has seven stages:

I - Establishment of a Citizens Advisory Board
II - Issue Identification
III - Information Sessions
IV - Formulation of Goals and Objectives
V - Identification of Opportunity Areas
VI - Development of Draft Master Plan
VII - Master Plan Adoption

I Establishment of Citizens' Advisory Board

Planning and Zoning Commissioners and staff developed a list of about 100 individuals, civic groups, and private businesses representing the various sociological, economic, and political beliefs of Norwalk. From this list, forty representatives were invited to serve on the Citizens' Coastal Area Management (CAM) Advisory Board. An open invitation was extended to concern citizens interested in coastal issues.

NORWALK COASTAL AREA MANAGEMENT PROGRAM

	1	2	3	4	5	6	7	8	9	10	11	12	
TASK	Establish Advisory Committee	Preliminary identification of issues	Review of State Coastal Policy & Use Guidelines as they relate to Norwalk	Parks, Open Space, Public Access	Land Use & Economic Base	Water Quality, Boating, The Harbor	Historic Preservation, Shoreline Appearance, Urban Design	Revision of Coast Coastal Issues Statement, pre preliminary goals & policies for Norwalk Prepare alternative development plans	Discussion of preliminary goals & draft plan	Finalize Draft Plan	Public Hearings and Adoption	Prepare New Zoning Regulations	Preparation of new ordinances, subdivisions, regulations, capital budget proposals, community development proposals, development plans etc.
P&Z STAFF	Prepare Work Program Prepare List of Potential Groups to be represented	Prepare preservation on Norwalk Coast	Prepare Preliminary issue statement Prepare presentation of state goals & policies with Norwalk Examples	Prepare Background Paper Presentation & speakers	Prepare Background Paper Presentation & speakers	Prepare Background Paper Presentation & Speakers	Prepare Background Paper Presentation & Speakers	Prepare Alternative Development Plans	Selection of preferred alternatives Finalize Goals & Objectives	Final Report & Map Public Hearing Notices	Two Hearings Planning & Zoning Commission One Hearing Common Council	Draft Regulations Public Hearings	Draft Regulations Public Hearings
CITIZENS COMM.		First Meeting Nov. 24 1980	Second Meeting Jan. 27 1981	Third Meeting Feb. 23, 1981	Fourth Meeting March 30, 1981	Fifth Meeting April 27 1981	Sixth Meeting May 26, 1981	Seventh Meeting June 29, 1981	Eighth Meeting	Ninth Meeting	Tenth Meeting -	Future Meeting -	Future Meeting -

II Issue Identification

The Norwalk CAM Advisory Board formulated the following questions when identifying and assessing the major issues of the coastal area.

A. Land Use and The Economic Base

1. How can a wide variety of land uses be continued on Norwalk's waterfront while preserving marine oriented uses, increasing public access, and encouraging appropriate new development?

2. How can waterfront land be made more attractive to new investment?

3. How will the proposed Maritime Center effect surrounding coastal land uses? How can the positive effects be encouraged throughout the harbor area?

4. What types of commercial uses should be permitted on the water's edge?

5. How much industry should be permitted in the coastal area? Where? How can these industries be protected?

6. How much water dependent industry should be encouraged? Where?

7. How much residential development should be encouraged in the coastal area? Where?

8. What can be done to ease the housing crisis of Norwalk and Fairfield County without eliminating any socioeconomic groups?

B. Commercial Port Facilities

1. Can existing storage terminals be improved or buffered?

2. Should storage terminals be centralized? Where?

3. How can the port facility be modernized?

4. What is the future of small port facilities?

5. What are the problems and opportunities associated with the conversion of the power plant from oil to coal?

C. Commercial Fishing

1. How much land and at what locations can be dedicated to the fishing industry (shellfishing, finfishing, and lobstering)?

2. Are economic incentives needed to encourage commercial fisheries?

3. How can fisheries habitat be protected?

D. Water Quality and Natural Coastal Resource Preservation

1. Is water quality at some sites so deteriorated that additional water based activities should be discouraged?

2. Where does water quality need improvement?

3. How can water quality be improved?

4. What natural resources exist in the coastal area? How can they be protected?

E. Parks, Open Space, Water Based Recreation and Public Access

1. Should the remaining large Norwalk Islands (Chimons and Sheffield) be purchased? How should the city's island holdings be managed? can the archipelago be used?

2. Where could waterfront parks be established? How and where can public access to the waterfront be expanded? What can be done to protect coastal open space short of acquisition?

3. What can be done to improve public access to Norwalk's beaches?

4. How can recreational fishing facilities be improved?

5. Where should water-based recreation be encouraged/discouraged?

6. Can Norwalk make better use of its excellent boating harbor?

7. How can existing marinas and boatyards be preserved in spite of competition for waterfront land?

8. Can more people take advantage of boating and related recreational activities?

9. Should public boating facilities (marinas, boatyards, launching ramps, boat rentals) be expanded? Where?

10. How can public fishing facilities be improved?

F. Shoreline Appearance, Urban Design, and Historic Preservation

1. How can valuable historic resources be revised or restored rather than demolished?

2. How can buildings be designed so they face the waterfront?

3. How can architecture and design of private facilities be harmonious with existing buildings and the natural features of the land?

4. What types of subdivision and zoning controls on housing development will minimize harmful impacts on the coast?

5. What types of waterfront development should be encouraged in Norwalk?

III Information Sessions

In response to the questions formulated by the Citizen's CAM Advisory Board, the Planning and Zoning staff in an effort to respond to these questions arranged a series of five information sessions.

The sessions held monthly (February - June, 1981) were designed to provide the Advisory Board with background information. Prior to each session, a memorandum was distributed containing information about the coastal issue to be discussed. At each session, staff members summarized the background information and highlighted key issues through a slide presentation. When weather permitted, a brief field trip served to highlight the coastal issue. Individuals from Norwalk and surrounding Fairfield County communities who are recognized for their technical expertise in or knowledge of a particular field served as guest panelists. These panelists shared their knowledge with the Advisory Board and evaluated Norwalk's coastal area problems and opportunities. The following list summarizes the coastal issues discussed and contributing guests.

February, 1981 - Parks, Public Access, and Open Space

guests: Hans Vervaat, Presèrve the Wetlands- Robert Burk, Norwalk Seaport Association-Robert Detore, Director, Norwalk Parks and Recreation

March, 1981 - Land Use and The Economic Base

guests: Lee Hartog, Rowayton Marine Works - Gordon Goodlet, Stamford Area Commerce and Industry Association (SACIA) Richard Miner, Rowayton Civic Association

April 1981 - The Harbor, Water Quality, and Boating

field trip: Veterans Park
Norwalk Water Pollution Control Facility

guests: Richard Roach, Chief - Regulatory Section of Operations Division, U.S. Army Corps of Engineers
Don Relyea, Harbor Master-Norwalk Harbor
Thomas Brigante, New England Pollution Control Company

May, 1981 - Historic Preservation, Shoreline Appearance, and Urban Design

field trip: United Church of Christ
Pinkney House
Walking tour of Rowayton

guests: Valle Fay, Norwalk Preservation Trust
Larry Flax, Association for a Better Community Design
Keith Simpson, Environmental Design Associates, Inc.

June, 1981 - Port Activity and Commercial Fishing

field trip: boat tour of Norwalk Harbor, Five Mile River Harbor, and Norwalk Islands

guests: Norman Bloom, Tallmadge Brothers Oyster Company
Lynn Johnson, The Center for the Environment and Man
William Hopkins, Home Oil Company
Christopher Stapelfeldt, Connecticut Commercial Fishermen's Association

Minutes compiled at these meetings appear in Appendix B of this report.

IV Formulation of Goals and Objectives

Based on the discussion generated at the information sessions, a series of six weekly subcommittee workshops was organized so that effective goal and objective statements could be formulated. Advisory Board members participated in the subcommittee workshops of their choice.

The six workshop topics were:

1. Commercial Port Activity and Commercial Fishing
2. Historic Preservation
3. The Harbor, Water Quality, and Recreational Boating
4. Urban Design and Shoreline Appearance
5. Land Use and The Economic Base
6. Parks, Open Space, and Public Access

At each workshop, Planning and Zoning staff reviewed the relevant State policies, specific issues previously identified and discussed, and background information. The staff also presented draft goal and objective statements for the Subcommittee's consideration. Following review and discussion of these statements, the Subcommittee endorsed goal and objective statements for the Advisory Board's consideration. The endorsed statements which reflect the issues, problems, and needs of Norwalk's existing conditions and the State's coastal policies, appear in Section Three, "Goals and Objectives", of this report.*

V Identification of Opportunity Areas

Following the information sessions and workshop series, eleven coastal areas were designated as "opportunity areas". "Opportunity Areas" were selected based upon the comments and recommendations of Citizens' Advisory Board members subcommittee participants, Planning and Zoning Commissioners, and Planning and Zoning staff. The "opportunity areas" are unstable - that is existing land use and zoning are not compatible. In fact, if these coastal areas were developed to the full extent permitted by existing zoning, land uses would be totally altered. Moreover, these areas seem ripe for change. The eleven designated "opportunity areas" are:

A. Rowayton Avenue
B. Roton Point
C. Wilson Cove
D. Village Creek
E. Manresa Island
F. Water Street
G. Landfill-Washington Street
H. Upper Harbor
I. Cove Avenue
J. Canfield/Shorehaven
K. Norwalk Islands

Specific consideration of each area is made in Section Four, "Opportunity Areas and Development Scenarios", of this report.

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*Minutes are compiled at these workshops appear in Appendix C of this report.

VI Development of the Draft Master Plan

The Planning and Zoning staff analyzed available information obtained during the preceeding stages. The information consisted of: endorsed goal and objective statements, actual and potential aspects of the "opportunity areas", environmental resource base, and socioeconomic considerations of the coastal area, the city, and the region. The product of this analysis is the draft "Revised Master Plan of Land Use for the Coastal Area" which appears in Section Five of this report.

VII Master Plan Adoption

Adoption of the draft Master Plan by the City is a four stage process:

1. Review by the Citizens' CAM Advisory Board -
   The Advisory Board reviews the draft Master Plan, recommends revisions if necessary, and endorses the plan.

2. Review by the CAM Committee of the Planning and Zoning Commission
   The Committee reviews the draft Master Plan as endorsed by the Advisory Board, recommends revisions if necessary, and endorses the plan.

3. Review by the Planning and Zoning Commission. The Commission reviews the draft Master Plan as Master Plan as endorsed by the Advisory Board and CAM Committee. Two public hearings are held to solicit citizen response. The Commission recommends revisions if necessary and endorses the plan.

4. Review by the Common Council. The Common Council reviews the draft Master Plan as endorsed by the three other review groups. A public hearing is held to solicit citizen response. The Council votes to determine if the plan should be adopted as the official Master Plan for the coastal area.

When this plan for the coastal area is approved and incorporated into the City Master Plan for Land Use, zoning regulations will be revised where appropriate, the plan will become the basis for future decision making including the capital budget and the Community Development Program.

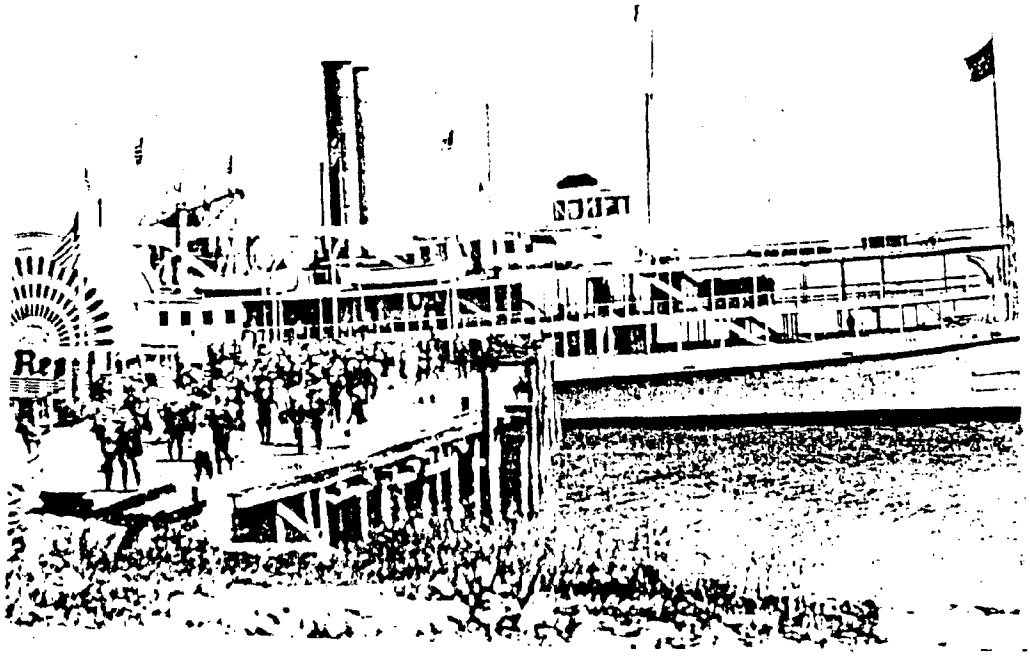
II. B A C K G R O U N D

A. Land Use and Economic Base

B. Water Quality, Coastal Resources

C. Parks, Open Space, Water Based Recreation, Public Access

D. Shoreline Appearance, Urban Design Historic Preservation



Excursion steamboat GRAND REPUBLIC

LAND USE AND THE ECONOMIC BASE

I. A Short History of Norwalk and the Coast

A. The Glacial Period

About 20,000 years ago, the last in a series of massive ice sheets or glaciers moved across the land over what is now Connecticut. The glaciers acted at once like a plow, a file, and a sled. Like a plow, the glacier scraped up loose rock particles and gouged out bedrock, like a file, grated away firm rock, and like a sled, carried away the sediments unearthed by the plowing and filing actions.* As the temperature rose, the glacier retreated northward, leaving large rocks and boulders at its southern most reach. As the glacier melted, the waters carried and deposited rocks and soil. In time, a rich environment suitable for plant and animal survival existed throughout the region.

B. Indian Settlements

The land was covered with a virgin forest, and abundant wildlife and crossed by narrow but deep watercourses. The shoreline was rimmed with sandy beaches, rocky shores, and marshlands. It was here that the Munsee Indians, descendents of the Delaware Tribe and members of the Wappinger Confederation of the Algonquin group lived. The Munsee people, later called "People of the Shell" established their village Norwauke, on the shores of Long Island Sound. Here there was abundant food in all seasons, particularly shellfish - clams, oysters and mussels- the shells of which were deposited in great heaps or middens.

Today, remnants of the Munsee Indians are found at three Norwalk sites- Butler Rock Shelter, Sagua Hill, and Spruce Swamp. At Spruce Swamp, originally a fresh water kettle hole pond near Long Island Sound, is a coastal area site where many Indian artifacts have been found. Projectile points, also known as arrowheads, suggest that these people were hunters; middens, heaps of shells, indicate that these Indian residents ate shellfish; pottery fragments testify to the technical skills of some Indian craftsmen; and skeletal remains suggest some ritualized burial rite.

C. Early Settlements and Port Activities

On April 20, 1640, Daniel Patrick purchased from the Munsee Indians, Norwauke River to the Five Mile River. Despite Patrick's death soon afterwards, families led by Roger Ludlow of Fairfield expanded their settlement westward from the Saugatuck River to include Norwauke.

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*Flint, Richard Foster and Skinner, Brian J. Physical Geology; 2nd edition. New York: John Wiley & Sons, 1977.

Norwauke (Norwalk) of the mid-seventeenth century was developed as three separate settlements - East Norwalk on the east bank of the Norwalk River, Old Well (South Norwalk) or the west bank of the Norwalk River, and Rowayton on the Five Mile River. Like many early New England settlements, Norwauke's coastal location provided these young communities with water routes for swift transportation and communication. However, unlike most other settlements, Norwauke had a well protected harbor, insulated from the forces of Long Island Sound by an island archipelago.

The early settlements prospered as subsistence agricultural communities. However, by 1720, the excellent soil quality of the area combined with the good water transportation base changed Norwalk from a subsistence to a surplus economy. Norwalk emerged as a hub of agricultural activity eventually becoming the regional center for produce shipments by sloop to New York City.

D. A Growing Town: 1800's

Ninteenth century Norwalk prospered with this water link developing shipbuilding and trading industries. Construction of schooners and sloops flourished at Rowayton and Dorlon's Point in East Norwalk. Trade routes were established between Norwalk and several New York State communities providing Norwalk with an excellent market for surplus goods. Several local entrepreneurs supported these trading ventures and eventually established profitable trade routes with both the West Indies and Falkland Islands. However, despite the desire for further trade expansion, growth was impeded by the physical limitations of the shallow harbor. In 1824, commercial trade routes were expanded to provide swift, safe, and inexpensive passenger service on steamships travelling from Norwalk to New York City.

The good service of steamships, the excellent harbor, the rugged coastline, and the many navigable waterways complemented by Connecticut's elaborate turnpike network seemed to eliminate any need for railroad development. However, by 1830, rail service extended from Boston to Providence making the final link to New York inevitable. Despite initial fears about the railroad system, linking Norwalk to New Haven and New York boosted the city's economy.

Norwalk of the 1800's was a city to be envied as it seemingly held all the ingredients of success. In Norwalk, there was a great concentration of warehouses, hotels, retail establishments, and manufacturing plants as well as excellent water, rail, and turnpike connections. Businesses were oriented to the land and water for transportation, reinforcing the link between mainland commerce and waterfront activities. Norwalk was indeed an ideally located city.

E. Norwalk - A Shellfishing Center of the 1800's

About 1800, a group of South Norwalk business men recognized the commercial opportunities for harvesting and marketing shellfish. During their vigorous marketing efforts, these businessmen realized that the shellfish supply was not inexhaustable. Soon they began planting oysters to ensure a good, marketable shellfish supply. Other local businessmen discovered that salt water areas such as creeks, coves, or inlets could be isolated to promote oyster growth. The group marked, staked out, and enclosed a piece of ground near Tavern Island. Here they transplanted oyster seed from Chesapeake Bay transforming Connecticut into the major seed producing state north of New Jersey.

Norwalk businessmen continued these mariculture experiments throughout the 1870's. Several entrepreneurs extended oyster seed beds from shallow areas inside the Norwalk Islands to areas outside the Islands. In 1874, Captain Peter Decker of Norwalk introduced a steam-powered sloop, to the industry. The vessel, "The Early Bird", was equipped with two dredges allowing oystermen to harvest 150 to 200 bushels daily. These deep sea experiments and steam-powered sloops helped Norwalk become one of the most productive oystering communities in the Northeast.

F. The Trolley Era

As railroads linked various cities together the development of the trolley, linking areas within Norwalk, provided increased mobility and made more city areas accessible for residential use. Large, luxurious homes were built along major trolley lines, particularly along East and West Avenues in Norwalk.

The early twentieth century was an era of solid growth and progress with development recorded on Norwalk's tax rolls: 1910 Grand List - $22 million; 1925 Grand List - $44 million. Manufacturing and shellfishing industries prospered beyond expectations.

Fabulous beach resorts such as Dorlon's Point and Roton Point Amusement Park offered magnificent waterviews, fine hotels, and both dancing and bathing pavilions which served as "the Mecca for people far and wide . . ., crowds (who) came here by trolley and other conveyances from the Norwalks . . .".*

Although most homes were modest, a breed of luxury estates was developed along Norwalk's waterfront offering panoramic views of the harbor and islands. John Keyser financed the construction of a splendid home on Manresa Island; L.O. Wilson developed a gentlemen's estate with a

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*"Rowayton" (newspaper article) 1910. Rowayton Historical Society Archives.

shoreline drive on Wilson Point; and James A. Farrell built Rockledge on a 15 acre Rowayton site with a view of Wilson Cove. Yet none of these estates could match the elegance of Elm Park, the 60 room chateau of the Lockwood family.

Although much of Norwalk's waterfront was a showcase of estates and cottages, several tracts of waterfront land were reserved for industry. The combination of effective land transportation routes and low land costs fostered the development of large, non-water related factory buildings physically oriented away from the water. Marshland was filled to expand the amount of buildable land. Eventually, the harbor served as a sewer for many industrial waste materials. The image of the Norwalk waterfront changed from an eighteenth century maritime marketplace to a twentieth century industrial stronghold.

In the early 1900's, increasingly poor oyster larvae sets were recorded in Norwalk. The U. S. Fisheries Bureau suggested that unless spawning beds could be maintained with reasonably good sets, Connecticut's oyster industry would be lost. In 1924, the industry's problem of poor larvae sets was compounded by the "typhoid scare", an illness caused by consuming contaminated oysters. Scientific evaluations of Norwalk's shellfish revealed heavy metal concentrations probably of copper, zinc, and lead probably generated by local industries. As a result of these studies, all Norwalk oysters were transferred to beds in other Connecticut and New York communities for filtering. The 1938 hurricane and the silt borne by its waters destroyed about eighty percent of the local shellfish beds as well as many vessels and land-based support facilities. By 1950, the Connecticut oyster industry was near extinction.

G. The 1930's to the Present Economic Growth

Norwalk maintained a solid industrial base through the Depression era. Aided by Federal work programs under Roosevelt's New Deal, several hundred people were employed locally to construct the Merritt Parkway and a city incinerator and to improve Calf Pasture Park. It was the same stable industrial base which guided Norwalk through World War II.

During the post-war period, the construction of new roadways, including the Connecticut Turnpike and Route 7, coupled with the existing Merritt Parkway made rural areas accessible and prompted suburban growth. In Norwalk, some new residential communities such as Village Creek, an integrated residential development, were carefully planned. However, massive subdivisions on land that was once forest or farm land and winterization of summer cottages were more common.

The flood of October, 1955 stymied Norwalk's growth. In approximately seventy-two hours about thirteen inches of rain fell causing over $8 million in business and residential damages. Urban renewal efforts of the post-flood decade helped rebuild about twenty-six acres of the city.

Since 1960, the Connecticut oyster industry, has recovered. The State's industry, now valued at more than $15 million, is rapidly expanding. This expansion is attributed to two factors: (1) the abundance of healthy oyster larvae of shellfish as an agricultural product, and (2) improved water quality. Yet, despite this growth, a serious problem remains. To continue the industry's expansion, additional land-based support facilities such as processing plants and wharf space are needed. For example, Tallmadge Brothers Oyster Company, based in Norwalk suggests that support facilities expansion could allow the company to double or possibly triple the current operations level*. Ideally, any expansion should occur on the waterfront. However, waterfront land is a physically scarce and increasingly market scarce resource. Unless provisions are made to accomodate and encourage the industry, it is unlikely that shellfishing, as historically known in Norwalk, can survive.

During the past decades, several new industries including Perkin Elmer, Burndy Corporation, and Connecticut Light and Power Company (CL&P) have moved to Norwalk. With the exception of CL&P and the remaining fisheries and petroleum industries, most of Norwalk's waterfront industries are not linked to the water.

II. Waterborne Commerce

Although few water-based companies remain on Norwalk's waterfront, water transportation remains an effective and economical method for moving heavy, bulky goods long distances. Norwalk Harbor contains approximately five miles of Federal navigation channels. These channels provide a vital link for Norwalk's ten commercial terminals - six petroleum tank farms, three sand/gravel storage areas, and one shellfishery.

A. Petroleum Facilities

Three-fourths of all water-borne commerce on Long Island Sound is petroleum products which includes gasoline, heating oil, asphalt, tar, and various petroleum distillates (i.e.: kerosene, diesel). Six separate terminals line the banks of Norwalk Harbor.

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* Letter from Tallmadge Brothers Oyster Company to Norwalk Redevelopment Agency, March 3, 1980. Copy on file, Norwalk Planning and Zoning Office.

COMPANY NAME	# Tanks	Storage Capacity	Employment
Devine Brothers 38 Commerce Street	7	15,470	35[a]
Harris & Gans, Co. 68 Water Street	22	15,350	40[a]
Home Oil Company 46 Smith Street	4	59,500	25[b]
Manresa Power Station Manresa Island-CL&P	3	640,000	80[c]
Norwalk Oil Smith Street	20	32,950	2[d]
Pepco 90 Water Street	9	3,570	26

[a]total employment of petroleum and sand/gravel divisions

[b]total employment of Norwalk office;does not included branches

[c]total employment of power station;does not include other Norwalk-based offices

[d]one permanent/full-time;one seasonal/full-time.

Norwalk's total petroleum storage capacity is 766,840 barrels. Compared to four other major Connecticut ports, Norwalk has the third greatest number of oil terminals, surpassed only by New Haven and Bridgeport. Based on storage capacity, Norwalk ranks as fourth among four port communities.

Port Community	Storage Terminals	Storage Capacity*
Bridgeport	12	2,599
New Haven	20	10,045
New London	4	1,640
Norwalk	6	767
Stamford	5	NA

*1,000 barrels

B. Sand and Gravel Facilities

Sand and gravel, important commodities in the construction industry, are shipped to Norwalk from Long Island and New Haven. These bulky commodities require extensive waterfront storage areas for easy loading. Three waterfront sites on Norwalk Harbor are used for sand and gravel storage. Expansion of these storage areas is limited by surrounding land uses.

Company Name	Storage Capacity (yards)	Employment
D'Addario Smith Street	sand-3,000 gravel-2,000	3
Devine Brothers Commerce Street Water Street[b]	sand-1,500 gravel-1,500 sand/stone-2,000	35[a]

[a]total employment in sand/gravel and petroleum divisions

[b]property leased to Devine Brothers by Harris & Gans Company

Among five major Connecticut ports, Norwalk is ranked as the third most active port based on sand/gravel shipments in 1976. By 1978, Norwalk's total sand/gravel shipments increased 308 percent to 138,952 tons.

Port Community	1976 Tonnage	Percent of Total
Bridgeport	22,828	8.5
New Haven	4,762	1.7
New London	4,762	1.7
Norwalk	34,022	12.5
Stamford	205,763	75.6
	272,137 - Total tonnage	

C. Fisheries Facilities

Although once one of New England's major shellfishing ports, Norwalk is today the home port for a single company - Tallmadge Brothers Oyster Company. During 1976, the company harvested 3,495 tons of non-prepared shellfish, surpassing the harvests of the State's major commercial ports.

TABLE 1

Norwalk Fishing Licenses Issued by Type:

	Number	%
Personal use (non-commercial)	75	66%
Marine commercial bait	2	2%
Commercial lobster or fish trawler	13	12%
Commercial finfish (by methods other than trawl net)	20	18%
Lobster Dealers	2	2%
TOTAL	112	100%

TABLE 2

Fish Caught in Fairfield County & Long Island Sound

Fish (Type)	Fairfield County Total lbs. Caught	%	Long Island Sound Total lbs. caught*	%
Lobster	221,276	79.0	972,035	39.0
Flounder	5,223	2.0	492,119	20.0
Fluke	618	0.2	48,724	2.0
Blackfish	2,929	1.0	31,094	1.0
Bluefish	2,613	1.0	78,486	3.0
Cod	10	0.1	3,667	0.1
Yellow Tail Flounder	16	0.1	35,808	1.0
Dayfish	40	0.1	21,299	1.0
Herring	-	0.0	20,254	1.0
Soup	15,958	6.0	217,516	9.0
Sea Bass	160	0.1	3,925	0.1
Weakfish	1,407	0.5	71,887	3.0
Whiting	0	0.0	116,698	5.0
Squid	3,107	1.0	87,162	4.0
Lobster Bait	23,572	8.5	190,317	8.0
Unclassified	0	0.0	7,140	0.3
Ling	26	0.1	9,713	0.5
Angler Fish	30	0.1	4,295	0.1
Butterfish	1,180	0.4	43,907	2.0
Crabs	0	0.0	3,465	1.0
	278,165	100.0	2,461,511	100.0

*Total lbs. caught in Connecticut and Long Island sound.

Source: Eric Smith, State of Connecticut, Dept. of Environmental Protection, Marine Fishery Service, 1980

Port Community	Tonnage Harvested
Bridgeport	0
New Haven	0
New London	10
Norwalk	3,495
Stamford	0
	3,505 - Total tonnage

According to the Connecticut Commercial Fishermen's Association, ten independent commercial fishermen are based in Norwalk. This independent fleet, although barely recognized locally, earns each fisherman at least fifty percent of his annual income. In Norwalk, each commercial fisherman operates his vessel alone (e.g. with no crew). Vessels are berthed at commercial marina facilities which charge recreational rental fees of up to $1,200 per season. These high fees have forced several fisherman to relocate to other communities. Moreover, commercial marinas cannot provide the land-based support facilities needed to store fishing gear.

A group of local fishermen did attempt to establish a fish processing company about 3 years ago (1978). However, plans were abandoned when the monthly costs surpassed $2,000.

Little is known about the actual catch made by each local fisherman. State records, however, suggest that in 1980 the average independent commercial fisherman harvested about 4,400 pounds of lobsters as well as several thousand pounds of finfish (flounder, cod, fluke, blackfish, bluefish, weakfish, etc. . . .).

D. Problems of the Commercial Port

Compared to other Connecticut ports, Norwalk Harbor is a shallow water harbor accessible only to small vessels of limited cargo capacity. Large vessels which can carry the load of several small vessels and are more economical and efficient to operate, require deep (35-40 feet), wide (300+ feet) channels. As a result, when compared to the State's three deepwater port facilities, Norwalk receives fewer tons of commercial goods.

Port Community	Channel	Tidal Range	Tonnage (1975)
Bridgeport	35' x 400'	6'	2.86 million
New Haven	35' x 400'	6'	11.43
New London	36' x 600'	6'	3.48
Norwalk	12' x 150/200'	7'	0.85
Stamford	18' x 200'	7'	0.85

The Harbor's limited access has been reduced in recent years with the main channel's siltation. As a result, only partially loaded vessels, usually seventy percent filled, were able to enter the port. Dredging the channel has temporarily eliminated this problem.

The passage of vessels into Norwalk Harbor is further compounded by the limited clearance of the New Haven Railroad and Route 136 (Stroffolino) Bridges. This situation is particularly significant since nearly eighty-five percent of the goods shipped to Norwalk Harbor are off-loaded at the four facilities north of these bridges.* The Railroad Bridge (vertical clearance 16 feet) and Route 136 Bridge (vertical clearance 8 feet) can be opened to accomodate water traffic. However, the Railroad Bridge can be opened only with twenty-four hour advance notice and the approval of the Conrail Station Master. No openings are permitted during morning or late afternoon travel periods or if low tide occurs one hour either side of the scheduled opening. The Route 136 Bridge is opened to all passing traffic upon request. The bridge is, however, closed to all water traffic during peak morning, noon, and late afternoon travel periods.

During the winter, movement in the upper harbor is often delayed by ice jams. Commercial traffic must also contend with seasonal recreational boating traffic.

Despite these problems, water transport of commercial goods is Norwalk's second most important method of shipment, surpassed only by truck transport.

Method of Shipment	Percent of Goods Shipped in/out of Norwalk
truck	56.5
water	29.8
railroad	7.0
pipeline	6.5
air	0.2

*Norwalk Harbor Information Package 26 March 1979, p.56. On file in Norwalk Planning and Zoning Office.

ECONOMIC BASE

Perhaps the most important single determinant of coastal land use is the enormous development potential the land offers for office and residential construction. This is a rapidly developing trend that has swallowed up traditional marine uses, industrial uses, abandoned and vacant land uses and replaced them with high income land uses. Greenwich harbor, once the site of a commercial port facility is now lined with the new wave of waterfront land uses, and the commercial port has been eliminated. Stamford's Yacht Haven once the largest private commercial boat yard in the City has been developed for a massive office-retail-residential complex, Harbor Plaza. Harbor Plaza counts as its tenant Continental Group, Inc., and advertises "sailing at five, why not?" to lure its high priced corporate clientele.

In Rowayton, boatyards have been replaced by office buildings and condominiums at a rapid rate. The traditional marine uses are now the exception and commercial fishermen are forced to look for more hospitable harbors. Lee Hartog, owner of the Marineworks, a boatyard in Rowayton, believes that the development of the Five Mile River area is the result of the anxiety of people who originally worked to assemble land parcels with the hope of expanding their marine businesses. However, as he explained at the March 30, 1981 CAM meeting, only a certain number of marine businesses can operate/survive because:

1) larger yards tend to absorb the business

2) high quality dealerships are not available to small yards.

As a result, many operators seek diversification in order to sustain their business through the winter. Diversification may consist of boatbuilding, boat sales or even an office building, apartments, or some combination. This trend has been reinforced by:

1) the fuel situation since 1973 which made it more difficult for small boatyards to supply their customers and which has made boating an increasingly expensive form of recreation, and

2) the success of other waterfront ventures such as those in Stamford, Greenwich, and Westport

TABLE I Waterfront Industries - Number & Employment

SIC	Industries (Non-Water Dependent)	Number of Industries	Employment
09	Fisheries*	1	38
20	Food and kindred products	3	81
22	Textile mill products	1	NA
23	Apparel & other finished products made from fabrics & similar materials	1	5
25	Furniture and fixtures	3	167
27	Printing, publishing, and allied industries	6	94
28	Chemical and allied products	3	346
30	Rubber and miscellaneous plastics products	1	NA
31	Leather and leather products	1	NA
32	Stone, clay, glass and concrete products	1	2
33	Primary metal industries	1	5
34	Fabricated metal products, except ordinance machinery and transportation equipment.	4	107
35	Machinery, except electrical	5	710
36	Electrical machinery, equipments and supplies	6	303
37	Transportation equipment	1	9
38	Professional, scientific, and controlling instruments, photographic and optical goods; watches and clocks	5	282
42	Motor freight transportation and warehousing	1	NA
47	Transportation services	3	98
50	Wholesale trade	2	121
52	Building materials, hardware, farm equipment dealers	2	8
53	Retail trade - general merchandise		
55	Automobile dealers and gasoline stations	8	28
56	Apparel & accessory & stores	1	8
57	Furniture, home furnishings, and equipment stores	1	6
58	Eating and drinking places	14	39
59	Miscellaneous business services	7	31
62	Security & commodity brokers, dealers, exchange	1	3
65	Real estate	8	12
72	Personal services	3	8
73	Miscellaneous business services	6	9
75	Automobile repair, automobile svcs.	6	37

TABLE 1 - Continued

76	Miscellaneous repair services	2	4
89	Miscellaneous services	1	2
	TOTAL	109	2,564

*Fishing industry with office employment only.

SIC-Standard Industrial Classification

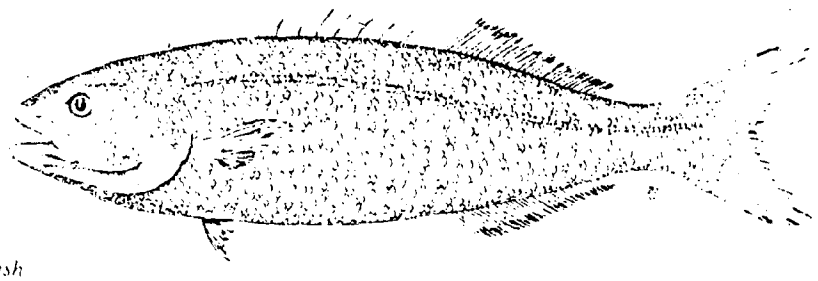
Source: P & Z Survey 1981

TABLE 2 Waterfront Industries - Number & Employment

SIC	Industries (Water Dependent)	Number of Industries	Employment
9	Fisheries	1	40
29	Petroleum refining and related industries	5	130
29/32	Petroleum refining and related industries/stone, clay, glass, and concrete products	1	35
32	Stone clay, glass, and concrete products	1	12
44	Water transportation	20	164
50/49	Wholesale trade/electric, gas and sanitary services	1	65
(54)	Fish (sea food) markets*	7	51
	TOTAL	36	497

*Seafood markets are not necessarily dependent on Norwalk Commercial Fishing for their supply.

Source: P & Z Survey, 1981



Bluefish

TABLE 3 Waterfront Industrial Survey - Land Value & Taxes

S I C	Industries (Non Water Dependent)	Total Land Value*	Total Taxes
09	Fisheries	$ 148,517	$ 22,124
16	Construction other than building construction - general contractors	92,813	4,929
20	Food and kindred products	296,671	25,151
22	Textile Mill Products	13,382	41,215
23	Apparel and other finished products	9,504	1,283
25	Furniture and fixtures	311,520	45,757
27	Printing, publishing, and allied industries	291,332	28,883
28	Chemicals and allied products	1,374,574	148,789
30	Rubber and miscellaneous plastics products	39,914	6,550
31	Leather and leather products	105,848	9,266
33	Primary metal industries	78,557	7,359
34	Fabricated metal products, except ordnance machinery and transportation equipment.	326,222	30,612
35	Machinery, except electrical	872,670	10,538
36	Electrical machinery, equipments and supplies	676,649	196,407
38	Professional, scientific, and controlling instruments; photographic, and optical goods, watches and clocks	178,630	15,831
42	Motor Freight transportation and warehousing	300,795	20,014
47	Transportation services	257,648	13,266
50	Electric, gas and sanitary services	641,689	28,639
52	Building materials, hardware and farm equipment dealers	24,041	2,857
53	Retail trade - general	19,323	3,036
55	Automotive dealers and gasoline service stations	698,905	40,444
56	Apparel & accessory & stores	20,889	2,878
57	Furniture, home furnishings, and equipment stores	105,320	11,415
58	Eating and drinking places	538,083	41,215
59	Miscellaneous retail stores	99,975	7,937
65	Real estate		
73	Miscellaneous business services	196,334	11,345
75	Automobile repair, automobile services, and garages	433,770	19,792
76	Miscellaneous repair services	9,504	10,800
		8,163,079	805,475

*Approximate 1972 land values based on Norwalk Assessor's Records

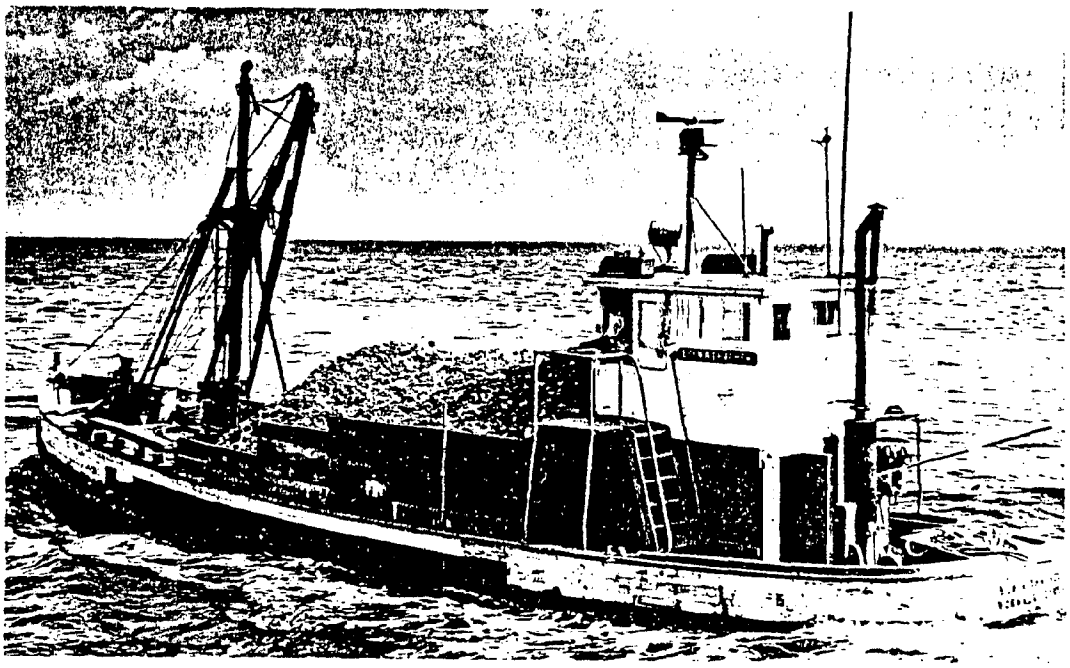
Source: P&Z Survey, 1981

TABLE 4 Waterfront Industrial Survey - Land value & taxes

S I C	Industries (Water Dependent)	Total Land Value	Total Taxes
09	Fisheries	$ 64,464	$ 3,716
29	Petroleum refining and related industries	544,267	47,031
29/32	Petroleum refining and related industries: stone,clay, glass, and concrete products	168,119	8,157
32	Stone, clay, glass and concrete products	57,767	2,420
44	Water transportation	1,942,200	119,764
50/49	Wholesale trade/electric	1,526,349	329,101
54	Fish (seafood) markets	698,905	17,264
	TOTAL	5,002,071	527,453

*Approximate 1972 land values based on Norwalk Assessor's Records.

Source: P & Z Survey, 1981



Oysterboat EBEN A. THACHER

Gordon Goodlet, planner with the Stamford Area Commerce and Industry Association stressed the regional implications of the economics of waterfront land use. He noted:

1) office development will not bypass Norwalk forever and, in fact, has begun to occur at Merritt-Seven, Prudential (Connecticut Ave.) and Rowayton

2) the landowner is faced with a difficult choice which can be influenced by restrictions and/or incentives

3) Stamford and Greenwich do not exhibit the best land use. The best land use requires coordinated planning and wise use of coastal resources.

In an effort to gain a better understanding of the dynamics of the economic base of the coastal area, the Planning and Zoning Commission conducted a survey of commercial and industrial properties on the waterfront. The survey results as presented in Table 1 indicates that there are 112 non-water dependent industries and commercial establishments with an employment of 2,585 as contrasted with only 37 water dependent industries and commercial establishments with an employment of 490.

The major waterfront employers who are non-water dependent are part of the machinery manufacturing group (SIC 35) which employs over 700 people and is represented by large firms such as the Norwalk Company, Nash Engineering. Second in employment is the chemical and allied products group and third, electrical machinery.

Water dependent industries are led by the water transportation industry (including marinas) with 164 employees, followed by petroleum refining and related industries and electric gas and sanitary services. The fishing industry represented by Tallmadge Brothers employs approximately 40 persons.

Table 3 presents land values and taxes for water dependent and non-water dependent industries and commercial establishments. The 1972 assessed value of waterfront industry (adjusted to 100%) is $8,821,247 representing $854,586 in annual taxes. Water dependent industries represent $5,002,071 in 1972 land values and $527,453 in tax revenue. The enormous value of water dependent land uses represents a resource as well as a potential cause of continuing conflict as individual property owners choose to "cash-in" the value of their waterfront land by selling out to non-water dependent land uses.

The market analysis of the South Norwalk Revitalization Area provides economic base data for the entire region as well as Norwalk and the South Norwalk neighborhood. The conclusions of the market analysis as prepared by Economics Research Association (ERA) are that there is a strong potential for retail, office and residential uses as well as a Maritime Center/a hotel/conference center, and certain entertainment uses.

Retail Market Analysis

The South Norwalk Revitalization program estimates that a potential exists for 86,000 square feet of additional retail space by 1990. The retail uses mentioned as having the greatest market potential are specialty retailing, restaurants, furniture and home furnishings. But, the study notes that retail competition in the region is extensive due to the large number of discount department stores in Norwalk, specialty retailing in Westport and convenience & comparison shopping in Darien and New Canaan. Stamford, with its 800 000 square foot mall containing Macy's and Penny's and the existing Bloomingdale's and Lord & Taylor department stores offer additional competition within a ten mile radius. The study estimates that with the South Norwalk Revitalization program in effect, and despite the regional competition retail space would grow from an additional 12 000 square feet in 1980 to 86,000 square feet in 1990. An added factor is the internal market that would be established by the addition of new residential, office and entertainment/cultural activity.

Office Market Analysis

The conclusions of ERA are that the region can support an increase in office space and that some of this will take place in South Norwalk. Major findings of their study:

> Market analysis for office uses indicates that the region can support an increase in office space, and that South Norwalk can play a role in office development. Projections of office employment in the Norwalk Labor Market Area, trends in office development in surrounding towns and a survey of regional office market trends show the following:

- About 7 million square feet of space has been built since 1970 in Greenwich, Stamford, New Canaan, Norwalk, Darien, Westport, and Wilton. Another 10 million square feet is under construction or planned.

- Norwalk has about 645,000 square feet of office space, about 400,000 square feet of which was constructed after 1960.

- The vacancy rate in new office buildings in Norwalk has decreased from 22 percent in March 1978 to 7 percent in March 1979, due to large part to rental of space at 50 Washington Street.

Approximately 4.6 million square feet of corporate office space is under construction or planned for development in Norwalk: The Merritt 7 Corporate Park, with an eventual size of 3.9 million square feet, the Prudential Fisher complex (400,000 sq.ft.), and the Singer development (100,000 sq.ft.).

	1980-1985	1985-1990
Annual demand	4,300-7,000 sq.ft.	11,300-17,000 sq.ft.
Cumulative supportable space	22,000-45,000 sq.ft.	80,000-130,000 sq.ft.

- Rent levels for renovated space in a significantly upgraded downtown setting could range from $7.00 to $9.00 a square foot (in constant dollars). To overcome the current image problem of the area rent levels may initially have to be on the lower end of the range with rates increasing in direct relationship to public and private improvements.

Source: South Norwalk Revitalization Program; Anderson, Notter Finegold and Economics Research Associates

Residential Market Analysis

The residential market continues to show some signs of health, despite high interest rates. At the present time over 200 units of new housing are under construction in Norwalk, and the 1980 census indicates a falling household size which will further increase the demand for small units. The ERA market conclusions are as follows:

An analysis for residential growth in Norwalk and the surrounding communities of Westport, Wilton, Weston, Darien, New Canaan, and Stamford, indicates the following:

- An average of 350 housing units were built in Norwalk each year during the last decade.
- Since 1971, 1368 condominium units in 13 developments have been built in Norwalk. At present 930 condominium units are planned or are under construction in Norwalk.
- Norwalk is the likely location for future multi-family residential development because most of the surrounding towns are zoned for single family housing.
- There was an average vacancy rate of one percent in several apartment complexes surveyed in 1979.
- Assuming an overall public and private sector revitalization plan is implemented, an annual housing demand is projected for 70 units a year through 1985 and 1990. These figures only reflect housing demand and do not include housing need (i.e., subsidized dwellings).
- There is a large unmet demand for rental apartments by young professionals in the Southwestern region of Connecticut. This represents a potential market for apartments and lofts converted from industrial/ commercial use.
- There is also a potential demand for loft space by artists in the region.

Source: South Norwalk Revitalization Program; Anderson, Notter, Finegold & Economics Research Associates.

Maritime Center Market Analysis

Market analysis for the proposed Maritime Center indicates that between 450,000 and 570,000 people could visit an attractively planned Center on the South Norwalk waterfront. For the Maritime Center to function as a viable recreation, education and entertainment attraction, the aquarium and marine history museum should be within either the same or adjoining structures, thus facilitating a "critical mass," water-oriented attraction. An independent marine history museum would probably have a limited market appeal. Since the South Norwalk waterfront does not have the physical capacity to accommodate another Mystic Village or South Street Seaport, a combined aquarium and marine history museum offers the best solution for attracting marine-oriented visitors.

The resident market areas for the proposed South Norwalk Maritime Center are:

Primary market areas: Fairfield County, part of New Haven county, Westchester County, part of Putnam County.

Secondary market areas: In Connecticut, the rest of New Haven County and part of Litchfield County. In New York, part of Dutchess County, Rockland County, part of Orange County, and the Bronx, and Bergen County in New Jersey.

Although part of New Haven County is within an hour's drive of South Norwalk, much of it is also within an hour of Mystic Aquarium and Mystic Seaport. Therefore most of New Haven County has been included in the secondary market area, which has a lower penetration rate in order to adjust for the effect of competition from Mystic. The population of the primary market is estimated at 1,835,000 in 1978, increasing to 1,846,000 in 1980, and 1,876,000 in 1985. The population of the secondary market is estimated at 3,578,000 in 1978, decreasing to 3,500,000 in 1980, and 3,526,000 in 1985. The decline is due to a continuation of the population decline in the Bronx. The total resident market, including primary and secondary market areas, is projected to remain constant at approximately 5.4 million.

Market penetration rates were based upon experiences at other aquariums and marine history museums and are used to estimate the percentage of resident and tourist/visitor market populations which would visit the proposed Maritime Center in South Norwalk in a given year. Attendance has been projected for a typical operating year between 1982 and 1985. The 1985 resident and tourist/visitor market is used to calculate this attendance.

A range of penetration rates are applied: 13 to 15 percent of the primary market area population, 3 to 4 percent of the secondary market area population, and 2 to 3 percent of the tourist/visitor market. The penetration rate of the secondary market area is conservative, and reflects the competing aquariums and marine history museum (Mystic Seaport) within 100 miles. The penetration rate of the tourist visitor market acknowledges that many visitors are on business or are only passing through to another destination.

Attendance forecasts for a typical operating year are as follows:

Resident market	350,000 to 420,000
Visitor market	100,000 to 150,000
Total Attendance	450,000 to 570,000

Conclusion

The overall impression is that the Norwalk waterfront represents one of the most lucrative areas for land development in the Southwestern region, but that this development undoubtably will be at the expense of losing traditional water dependent industries, the commercial port, fishing industries, private boat clubs, marinas and boatyards. The choice of encouraging new development with its higher property taxes, employment, and image, versus the traditional land uses which have a lower economic return will not be easy.

LAND USE & ECONOMIC BASE: NEIGHBORHOOD & DISTRICTS

A. Rowayton

Comparison of 1929 and 1981 zoning maps of Rowayton shows that zoning has remained essentially the same. The largest change in zoning involved the Farrell estate which was rezoned from residential to Research and Development in an effort to permit some corporate development yet retain the village character of the community. Other zoning changes reduced the bulk of buildings on Rowayton Avenue in the Business #3 Zone to preserve views of the water, and changed lot area requirements in the single family zone. The business #3 zone was established as a strip along the Five Mile River leaving the rest of the area as residential zones.

Despite the continued existence of the original zoning, land use in Rowayton has changed dramatically.

Once an oystering village with three shipyards, Rowayton was a quiet residential community with many small family farms. This pristine village was noted for its panoramic views which spread "out before us like some beautiful painting showing its charming Five Mile River".* With the construction of Roton Point Amusement Park; in the late 1800's, this quiet community was transformed into a recreational "Mecca for people far and wide". Rowayton, the resort community, attracted visitors from as far away as New York as it was accessible by trolley, train, and steamship. Magnificent mansions and neat cottages were built throughout the district while boatyards lined the river bank.

Today, Rowayton retains its small town character typified by a somewhat dense mixture of neat cottages, small farmhouses, Victorian mansions, and contemporary dwellings. In the past two decades some controversial changes have occurred in the business zone along the Five Mile River. The pristine water view is almost totally blocked by large buildings which provide glimpses of the river through narrow corridors. Many commercial boatyards have been replaced by executive offices and condominiums with a few private slips. The businesses sometimes line both sides of Rowayton Avenue and have been established at two sites on Wilson Cove. Although the two businesses on Wilson Cove do not conform with the intended residential uses prescribed by zoning, they both offer boating opportunities and thus buffer the negative impact of lost boating opportunities on the river. Unless Rowayton's remaining marine uses are preserved through zoning, it is unlikely that the small town maritime character of Rowayton will long remain.

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*"Rowayton" (newspaper article), 1910. Rowayton Historical Society Archives. Ibid.

Despite Rowayton's rapid development, several parcels of open space land, both private and public, remain. It is likely that the two publicly owned tracts (total area 10.9 ac.) and the two district owned tracts (total area 15.4 ac.) will remain undeveloped. The two land tracts with the most uncertain futures are the Hart Property on Farm Creek and the Roton Point Club on the south central face of the Rowayton peninsula. Currently, zoning permits extensive residential development on both sites - up to five units on the Hart Property peninsula and 100 units on the Roton Point site. If the Hart Property peninsula is developed, then much of the remaining Farm Creek tidal marsh will be destroyed, and what marsh remains will be of poor quality. If the Roton Point site is developed, Rowayton will lose one of the largest tracts of open space on its waterfront. It is likely that such major waterfront development projects will alter the community character.

The following issues have been identified within Rowayton's districts and neighborhoods:

Rowayton Avenue (Opportunity Area)

- lack of comprehensive business district plan relating parking, land use, vehicular traffic, sidewalk, river access, and amenities
- large number of conversions of boatyards to office buildings
- lack of visual access to waterfront
- lack of public access to waterfront in spite of Pinkney Property

Farm Creek

- Hart Property - need to protect last remaining open space
- lack of public access

Roton Point (Opportunity Area)

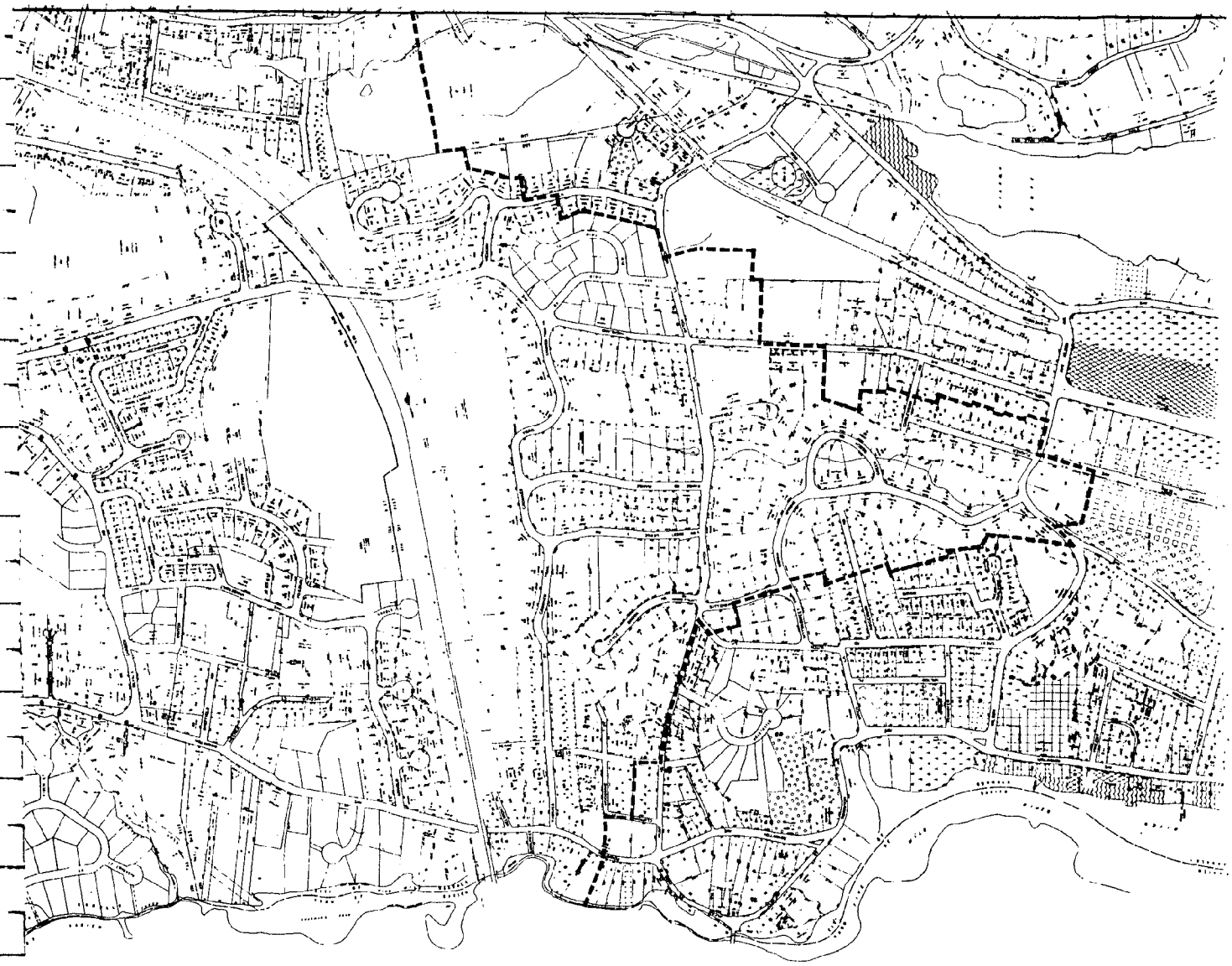
- lack of public access
- high development potential for multifamily housing
- need for historic preservation of remaining Roton Point Amusement Park buildings and critical shorefront areas

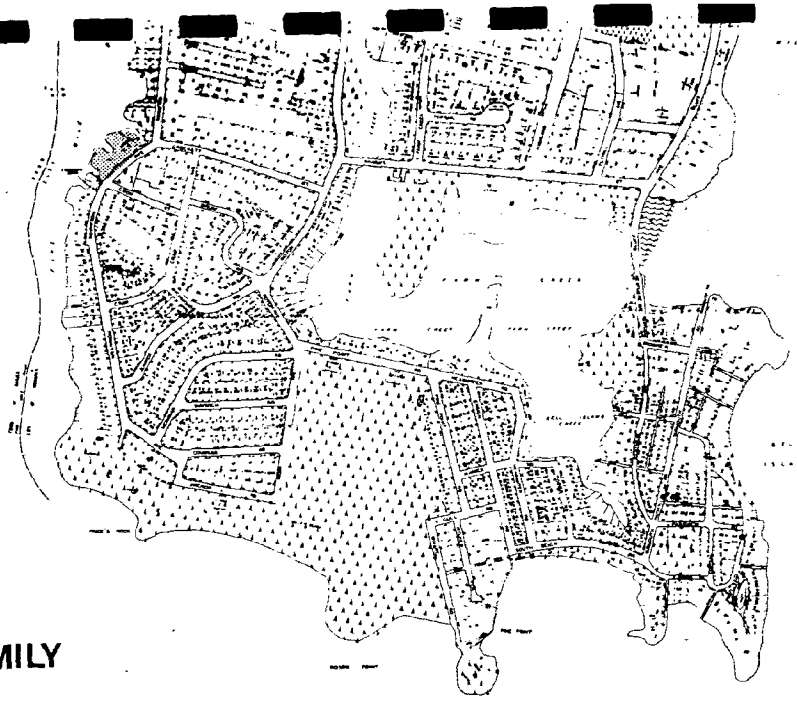
Bell Island

- need for historic preservation and/or design review to protect unique character
- lack of public access
- high risk from storms/floods
- zoning and land use incompatible

Additional Sources:

- 1973 Master Plan of Land Use
- Topic Study
- Rowayton Master Plan (Pratt Institute)
- Master Plan of Parks & Open Space 1977
- Five Mile River Estuary Study



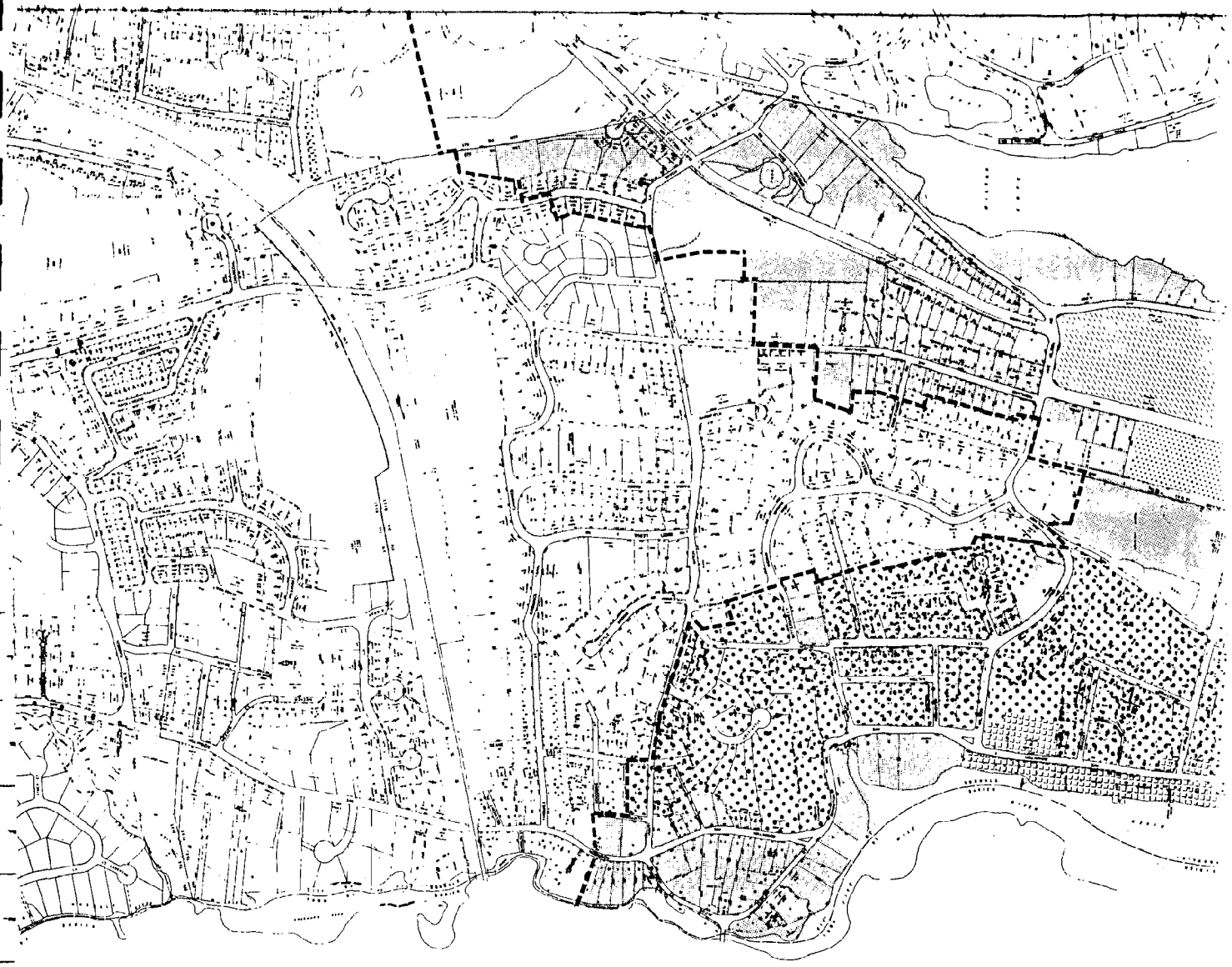


- OFFICE
- ONE FAMILY
- TWO-FIVE FAMILIES
- FIVE + FAMILIES
- NEIGHBORHOOD COMMERCIAL
- MARINE COMMERCIAL
- PUBLIC INSTITUTION
- PRIVATE INSTITUTION
- PUBLIC OPEN SPACE
- PRIVATE OPEN SPACE

COASTAL MANAGEMENT PROGRAM
ROWAYTON LAND USE

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

FEET 400 0 1000
MILES 0 1/4



AA RESIDENCE

A RESIDENCE

B RESIDENCE

BUSINESS NO. 3

RESEARCH AND DEVELOPMENT (R.D.)

COASTAL MANAGEMENT PROGRAM

ROWAYTON ZONING

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

FEET 400 0 1000
MILES 0 1/4

B. South Norwalk

Originally the City of South Norwalk, this dense, urban area is typical of the tight fabric of older American cities. Land uses vary from lot to lot. Older manufacturing industries in large mill buildings have given way to new high-technology concerns and small diversified incubator industries. The 1929 zoning map established large areas of the waterfront as a "Heavy Industrial Zone" and that zoning classification remains to this date. Interior sections of South Norwalk were designated "Light Industrial" and "Business No. 2". Only the Shorefront Park area, Woodward, Lincoln and Quintard Avenues were zoned exclusively as residential areas. The large Village Creek salt marsh bordered by Meadow Street and Woodward Avenue were zoned for Heavy Industry in this first zoning map, and much of that zoning classification remains today.

While the zoning which was established fifty years ago has changed little in South Norwalk, the land uses have changed. South Norwalk is no longer the largest manufacturing or employment center in the city. Port facilities such as the Gulf Oil Tank Farm on Water Street, the Mobil Oil Facility on Ely Avenue, the commercial dock at Wilson Point have been closed. Large mill-type buildings including the Norwalk Ice Factory on Monroe Street, the Norwalk Lock Company on Marshall Street, and the R & G Corset Factory on Marshall Street are no longer used for large scale manufacturing industries, but now house a wide variety of small scale industrial and commercial enterprises. Those manufacturing industries that do remain such as Nash Engineering, the Norwalk Company, Beldoch Popper, and King Industries have modernized their facilities and no longer have the harmful impact on the environment they once had.

Problems remain, however. The industrial uses such as the junk yards surrounding Village Creek continue to have a harmful impact on the tidal marsh and the zoning map suggests that much of the rest of the marsh is available for industrial development, a conflict with State D.E.P. regulations and Coastal Area Management Policies.

The estimated population of South Norwalk in 1980 was 6,202 and within the South Norwalk area are two neighborhoods targeted for Community Development Assistance (South Main and Springwood Ely) because of the high concentration of low income and minority persons and deteriorated housing stock. The South Norwalk Revitalization Program (1979) is the basis for the renewal now underway in South Norwalk. The program consists of $14 million in private investment and $3.7 million in public investment in phase 1A. Street improvements are in place on Washington Street including brick sidewalks, granite curbs and appropriate street furniture. A new parking deck at Haviland Street is nearing final design, and plans are well advance towards a Maritime Center (museum and educational/scientific center).

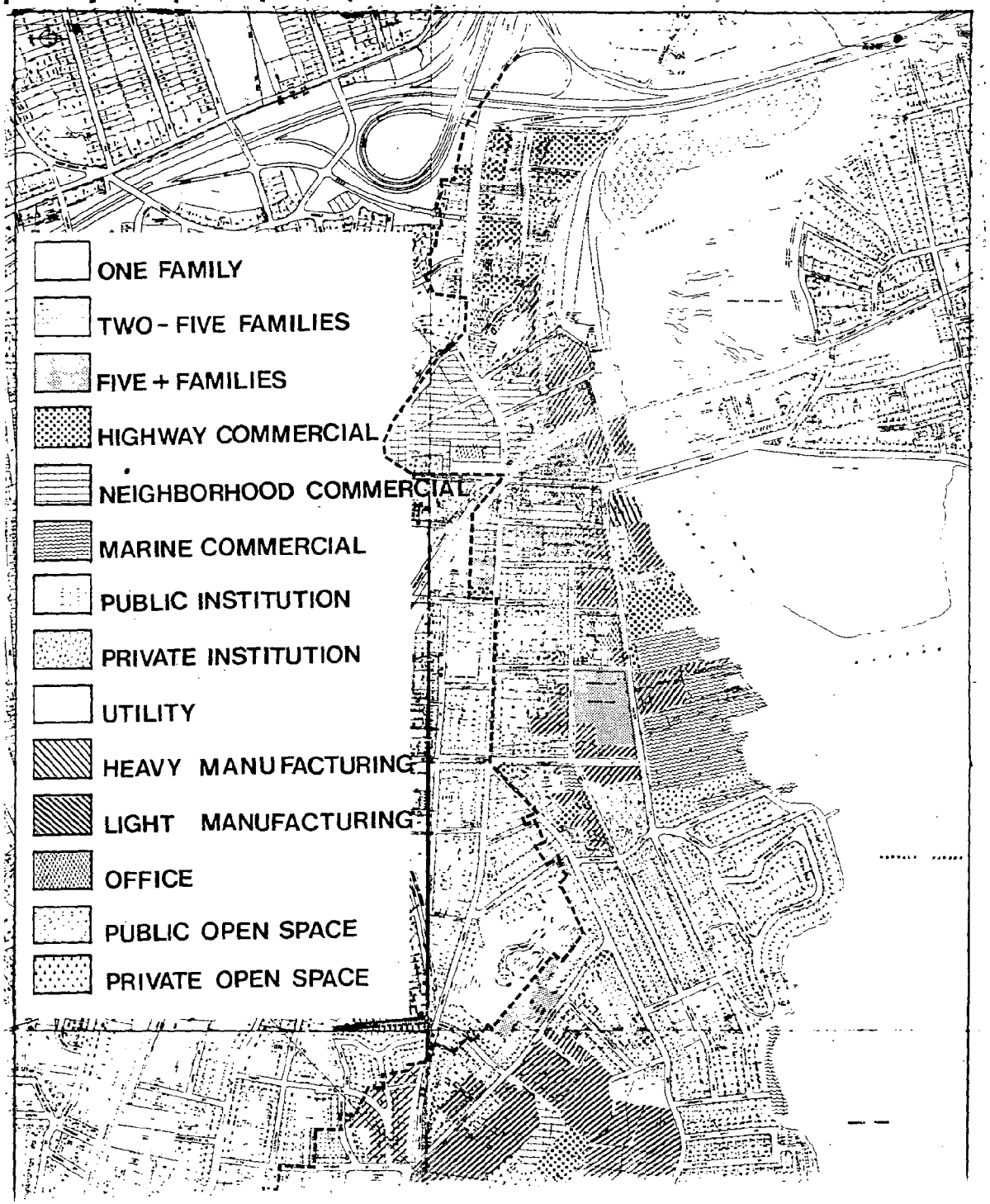
A private developer is committed to major rehabilitation and reuse of 16 buildings on Washington Street as part of the Washington-South Main Urban Renewal Plan. Subsequent phases of the South Norwalk revitalization program call for elimination of the oil tank farms on Water Street and its replacement with a waterfront hotel. This area will be examined in detail in the sections that follow especially in Section V, Opportunity Areas.

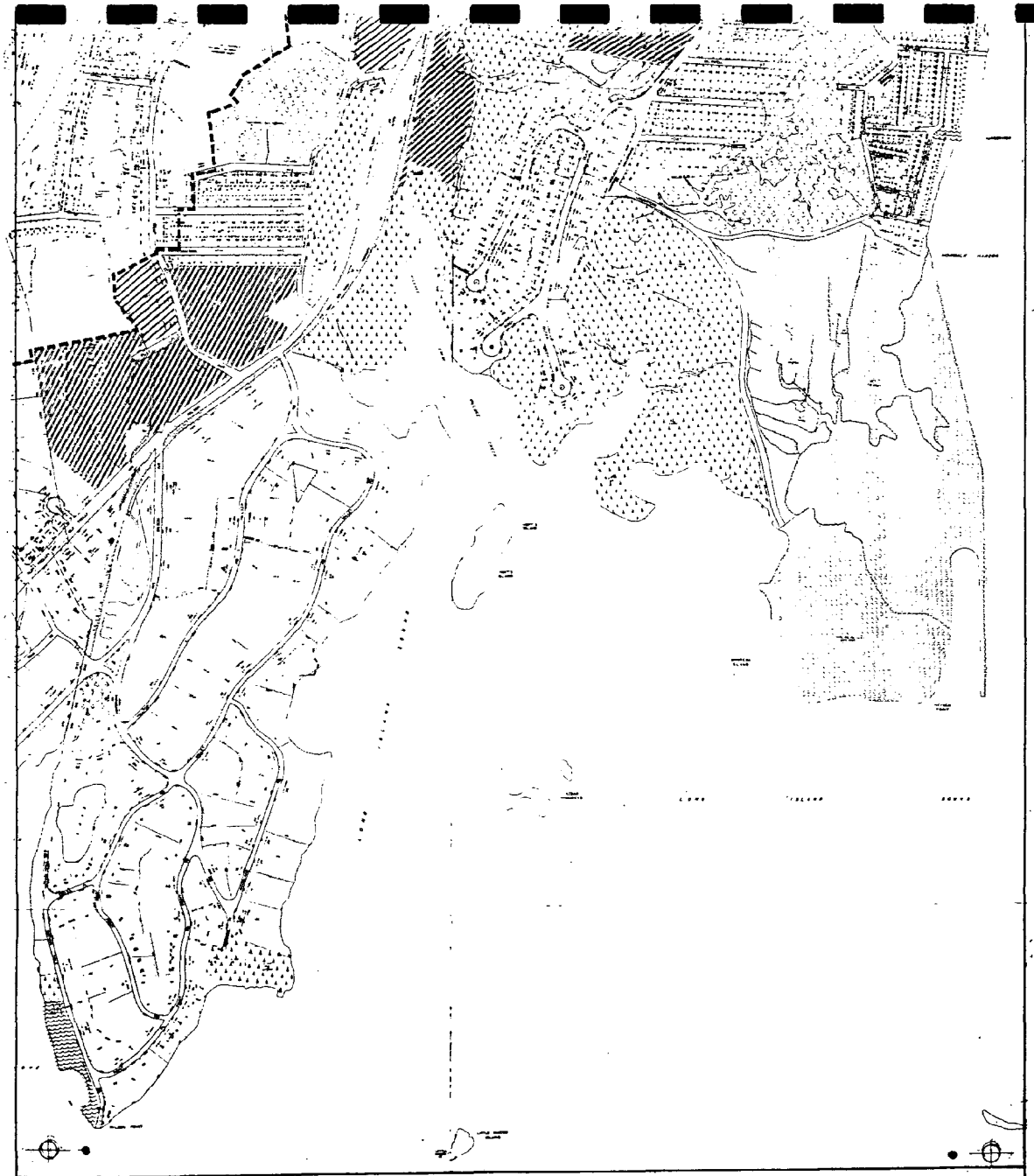
South Norwalk: Summary of Issues

The following issues for South Norwalk have been identified:

Landfill - Washington Street (Opportunity Area)
- future major development opportunity at Landfill-Reed/Putnam-railyards
- Maritime Center Plans - Central Focus
- lack of public access along Water Street
- zoning and land use incompatibility
- historic preservation - Washington Street and individual buildings throughout factory district
- hazardous waste control - landfill
- declining Washington Street and South and North Main Streets' business district - South Norwalk Revitalization Program
- poor traffic circulation under Railroad bridge and throughout
- constricted channel because of draw bridges
- need for revitalization adjacent to railroad station
- combined sewers
- potential for new or rehabilitated multifamily housing

Water Street Area (Opportunity Area)
- lack of public access
- high potential for major new land uses (eg. office buildings & commercial developments) on vacant and underutilized parcels of land
- threatened oyster industry, recreational marinas and boat clubs


ONE FAMILY
TWO - FIVE FAMILIES
FIVE + FAMILIES
HIGHWAY COMMERCIAL
NEIGHBORHOOD COMMERCIAL
MARINE COMMERCIAL
PUBLIC INSTITUTION
PRIVATE INSTITUTION
UTILITY
HEAVY MANUFACTURING
LIGHT MANUFACTURING
OFFICE
PUBLIC OPEN SPACE
PRIVATE OPEN SPACE



COASTAL MANAGEMENT PROGRAM
SOUTH NORWALK LAND USE

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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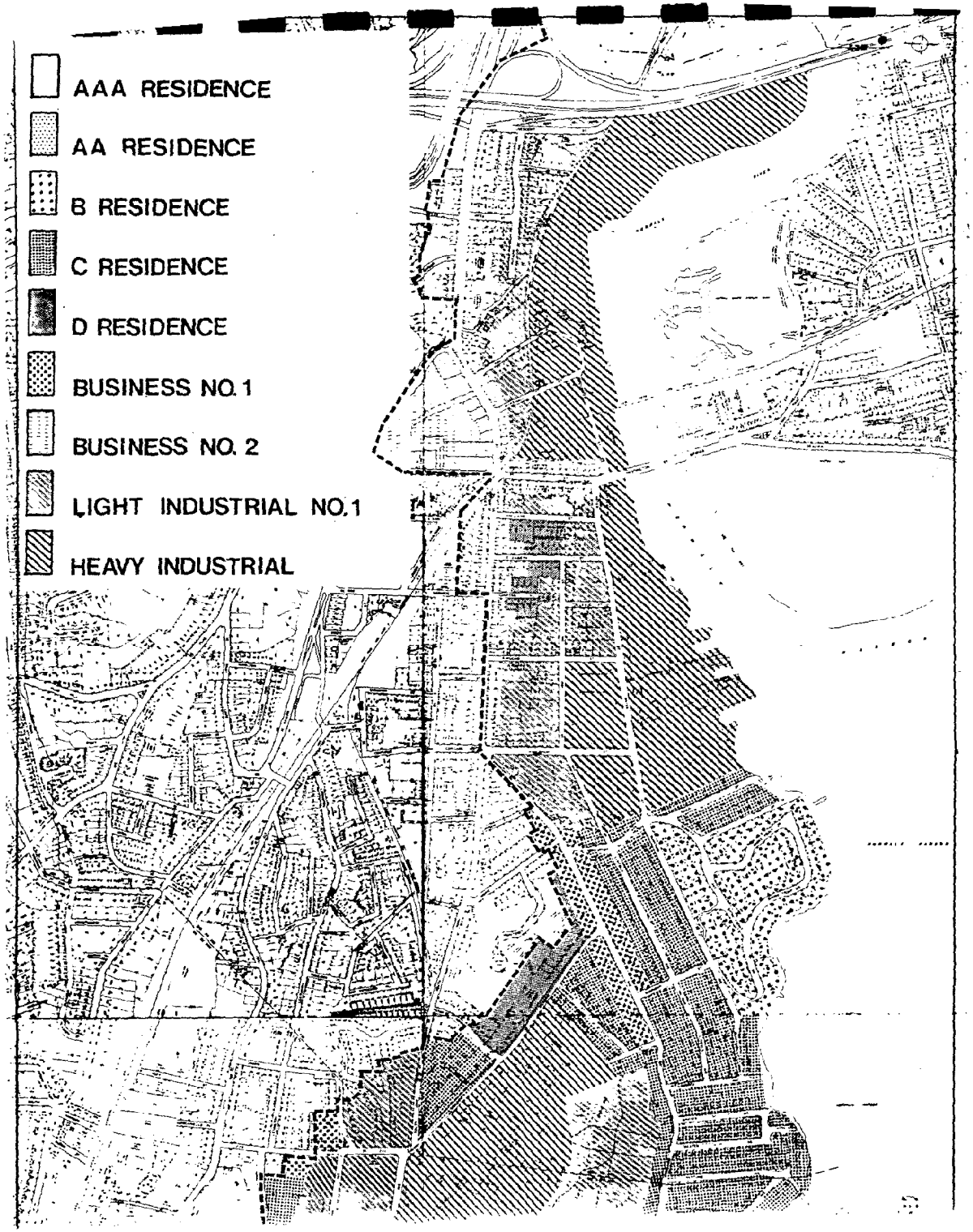
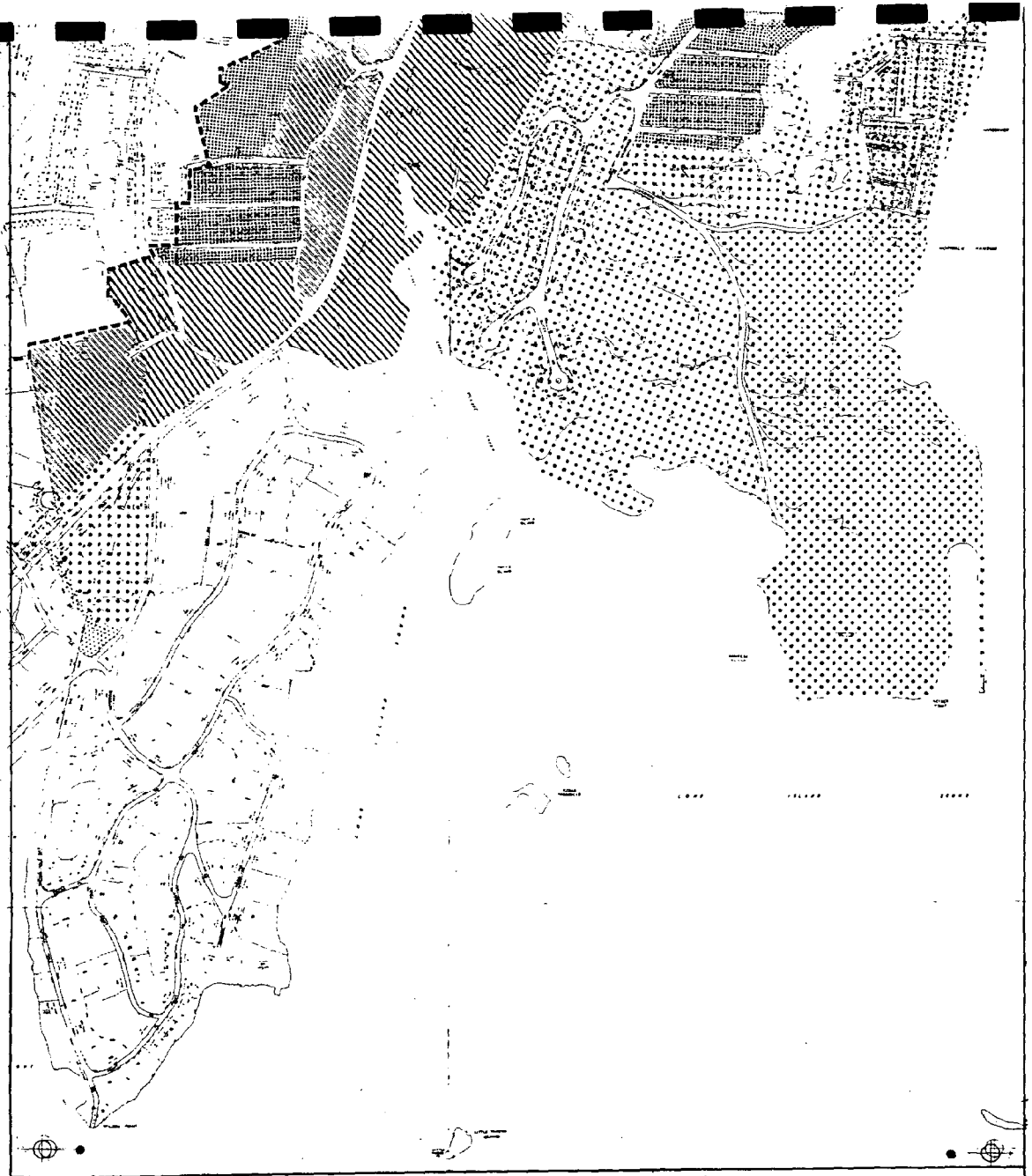

AAA RESIDENCE
AA RESIDENCE
B RESIDENCE
C RESIDENCE
D RESIDENCE
BUSINESS NO. 1
BUSINESS NO. 2
LIGHT INDUSTRIAL NO. 1
HEAVY INDUSTRIAL



COASTAL MANAGEMENT PROGRAM
SOUTH NORWALK ZONING

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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Wilson Cove (Opportunity Areas)

- incompatible zoning and land use at Wilson Cove Yacht Club
- Moreland property with potential for cluster housing and historic preservation

Wilson Point

- potential for cluster development or subdivision of remaining large parcels

Village Creek (Opportunity Area)

- tidal marsh heavily impacted by adjacent industries
- disturbance of residential areas by hunting
- potential for hazardous waste spills

Manresa Island (Opportunity Area)

- proposed conversion from oil to coal powered/bulk storage
- lack of public access
- visual intrusion
- thermal pollution
- impact of fly ash dump on water quality
- future use of port facility

Additional Sources:

-South Norwalk Revitalization Program & Anderson, Notter, Finegold & Economics Research Associates, 1980
-Norwalk Maritime Center Study, Jos. Wetzel Associates, 1980
-Master Plan of Land User 1973
-Master Plan of Parks & Open Space, 1977
-South Norwalk Traffic & Parking Study, 1979
-Norwalk Harbor Management Study, 1978

C. Norwalk Center

The center of Norwalk, once also a separate City like South Norwalk, is very similar to its counterpart down the river. With a population of 2,000 the land use patterns reflect a dense urban fabric of commercial, industrial and residential uses. Four of the five commercial ports in the City are located here, in the upper harbor. Norwalk Oil, Home Oil, Devine Brothers (sand and gravel) and D'Addario (asphalt) ship via barge up the circuitous route to crowded locations. (see Waterborne Commerce).

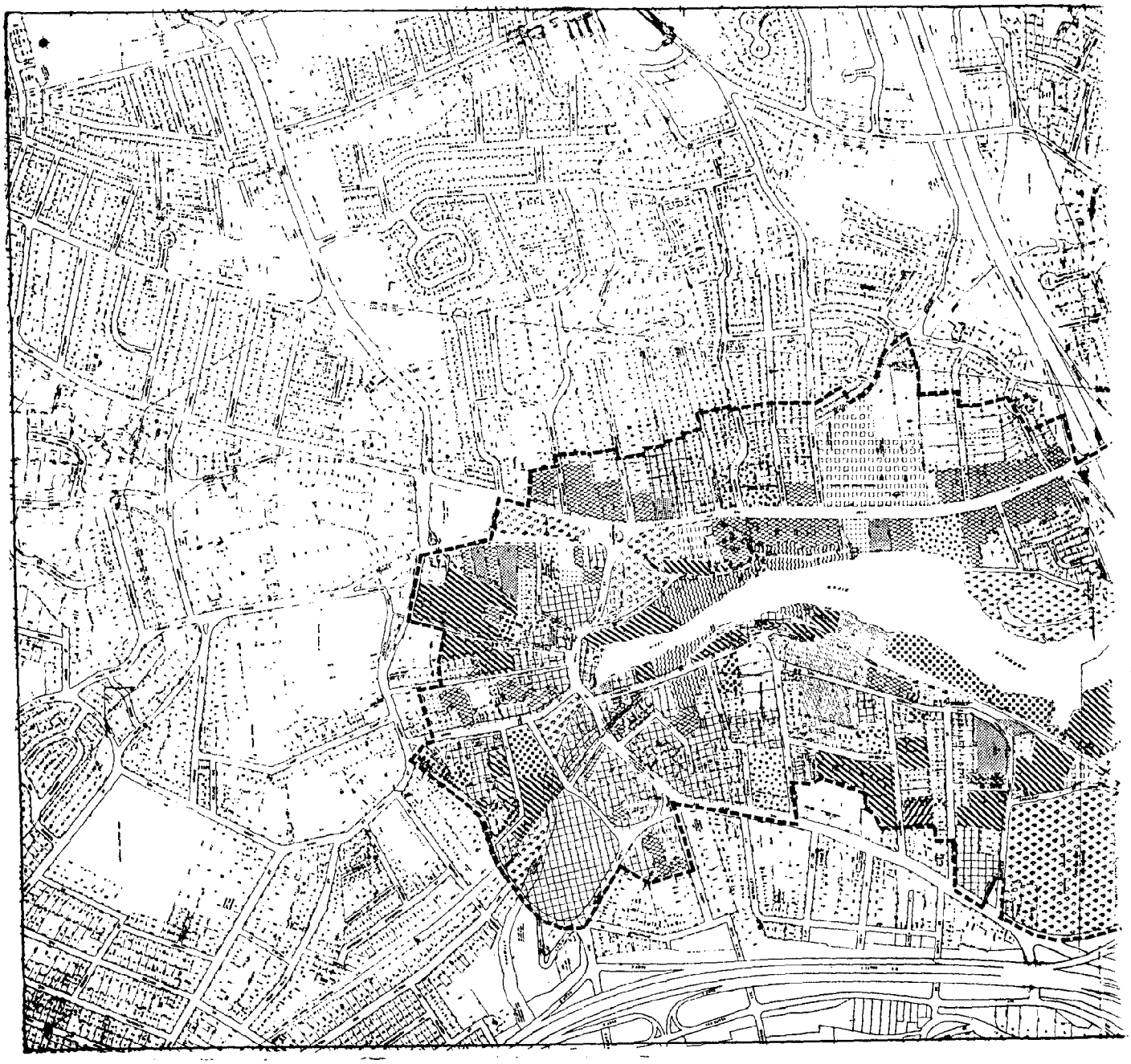
The coastal boundary encompasses significant upland areas including the Academy Chapel neighborhood which receives Community Development and Housing Assistance Funding. Several important historic areas also line the upper harbor. The Lockwood-Mathews Mansion (National Register of Historic Places)the Chapel Street houses, Wall Street (Hour Square),the Green (State Historic District), East Avenue.

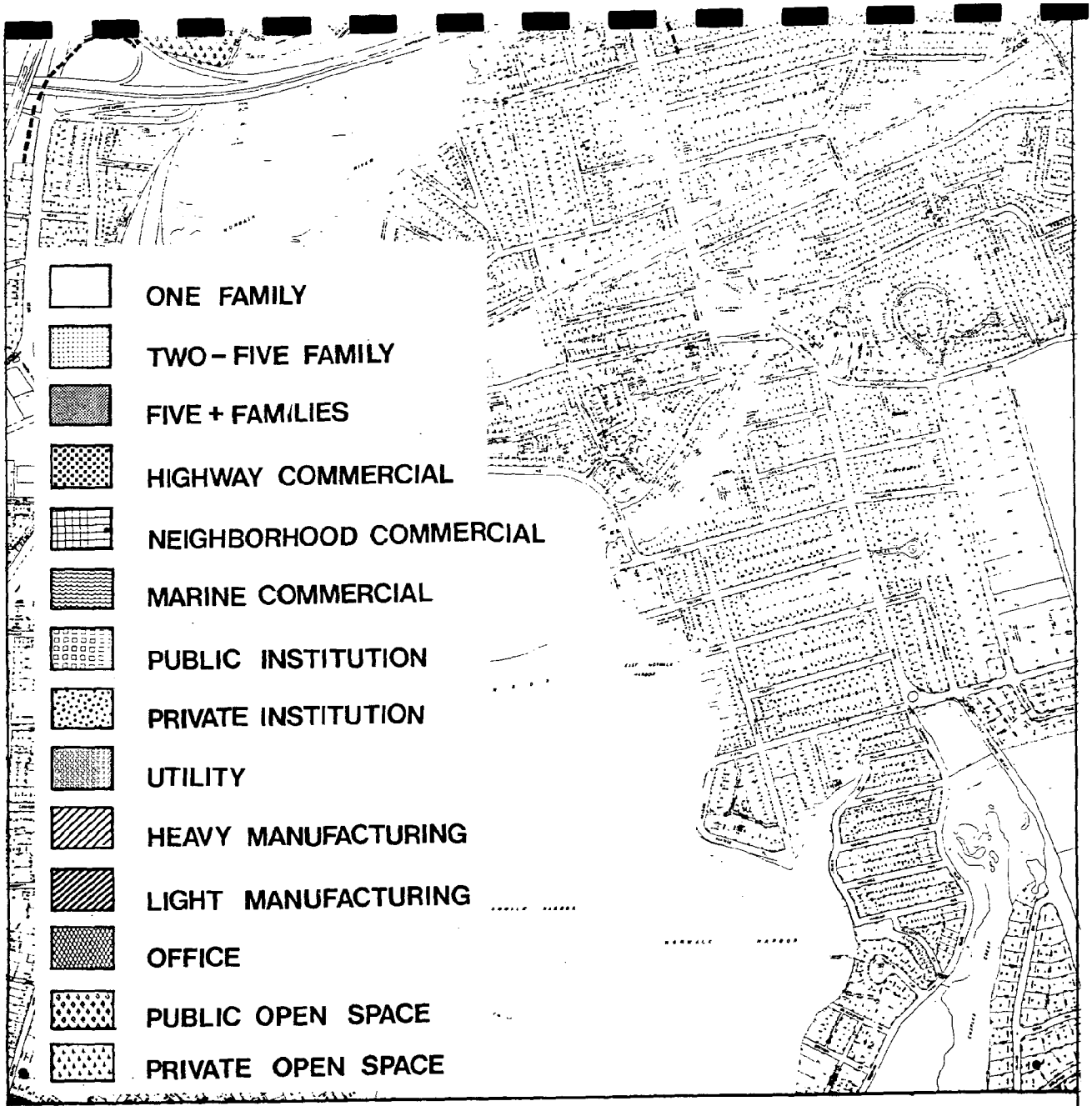
Zoning patterns in the center of Norwalk are for the most part the same as those established 50 years ago. The waterfront is zoned "Heavy Industrial" reflecting, perhaps an anticipated influx of major manufacturing and port facilities. In fact, however, only 10% of the upper harbor waterfront is used for heavy industry today. Upland areas adjacent to the harbor are zoned for multifamily residential, commercial, and restricted business (a new zone recently revised to include incentives for historic preservation).

Norwalk Center: Summary of Issues

The Coastal Area Management Advisory Committee has identified the following issues for Norwalk Center:

- uncertain future of commercial port facilities
- lack of public access and parks on the waterfront
- lack of visual corridors to the waterfront
- zoning and land use incompatibility
- historic areas - Norwalk Green, Hour Square, in need of preservation
- building setbacks and height controls needed to protect and enhance view
- hazardous waste control to prevent spills from oil tank farms, chemical industry
- Wall Street business center needs strengthening
- potential conflict of recreational and commercial boating
- traffic on East Avenue and other arteries
- Yankee Doodle Bridge congestion
- potential Pulse Point/Railroad Station coordination to improve mass transit
- large non-water dependent industries on the waterfront
- combined sewers
- potential for new or rehabilitated multi-family housing





COASTAL MANAGEMENT PROGRAM
NORWALK CENTER LAND USE

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

FEET 400 0 1000
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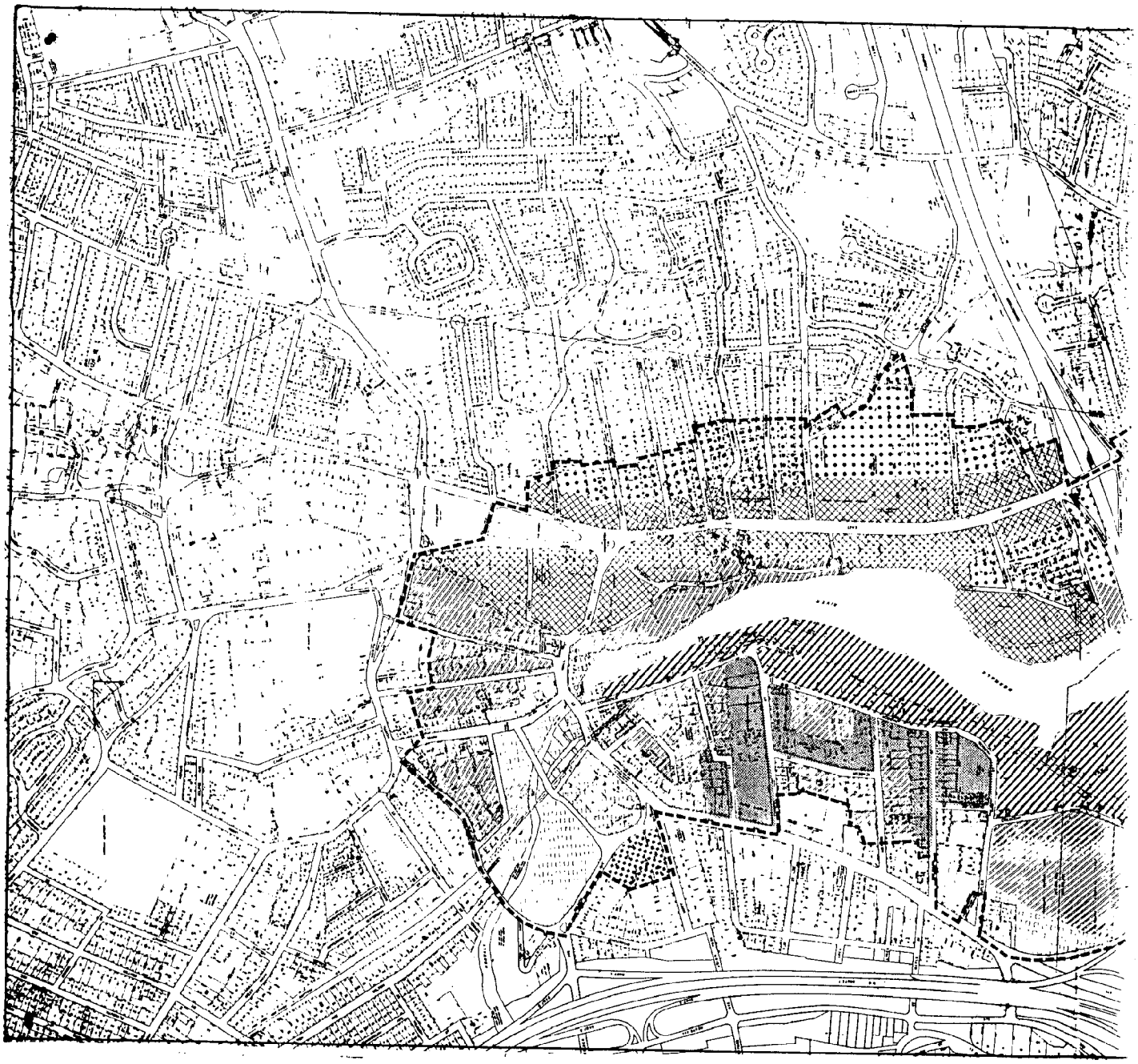

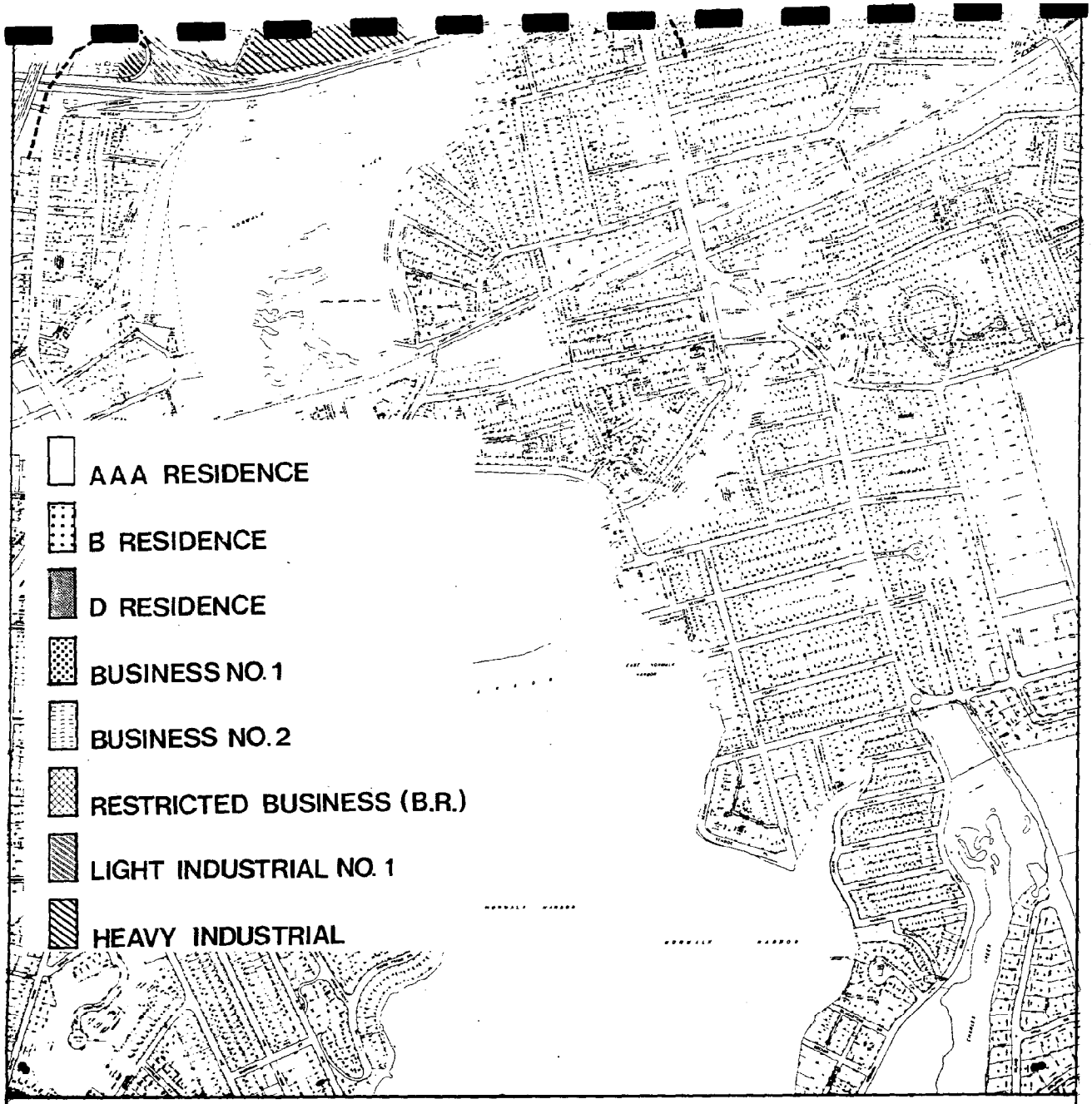

COASTAL MANAGEMENT PROGRAM
NORWALK CENTER ZONING

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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Additional Sources:

Norwalk Survey of Industry, 1980
Norwalk Overall Economic Development Program, 1980
TOPICS
Master Plan of Land Use, 1973
Master Plan of Parks & Open Space, 1977
Norwalk Transit District Pulse Point Study, 1981

D. East Norwalk

This community was, during most of its history, an agricultural district. One of the largest family homesteads, Taylor Farm, stretched from the east bank of the Norwalk River south to what is now Calf Pasture Point. Some residential communities were built in the Fort Point and Seaview Avenue areas.

Today upon much of the fertile agriculture lands moderate to upper income housing has been constructed. Several marinas and boatyards operate along the river's edge. Calf Pasture Beach and Shady Beach provide city residents with water-based recreational opportunities while Veterans Park provides a unique view of the harbor and Sound. Taylor Farm is maintained as meadow. Some waterfront condominium construction has occurred in East Norwalk at Vantage Point and Dorlon terrace.

East Norwalk: Summary of Issues

The following issues have been identified for each of the following areas within East Norwalk:

Fort Point-Van Zant-Veterans Park

- inappropriate use of Veterans Park for non-water related recreation
- lack of waterfront access from Ft. Point Street neighborhood
- deteriorated housing
- poor traffic circulation especially on Fort Point Street
- potential development of truck warehouse and adjacent waterfront properties for office and/or condominiums
- small boatyards for sale-rapid change in land use possible
- incompatibility of zoning and land use
- need to improve neighborhood commercial districts-Ft. Point, Van Zant, Liberty Square
- indescriminate filling of shoreline

Cove Avenue (Opportunity Area)

- incompatibility of zoning and land use
- small boatyard may convert to condominiums
- conflict over use of city street ends
- poor traffic circulation especially during summer months
- historic preservation especially Lovejoy Oyster House
  *see attached sheet

Canfield Island - Shorehaven - Cove Marina (Opportunity Area)

- largest tidal wetland in city zoned for development as single family housing
- lack of public access to Canfield Island Creek
- Shorehaven Golf Course zoned for single family development
- illegal filling of wetlands and adjacent uplands
- potential for additional public open space
- deteriorated bridge to Canfield Island
- need to evaluate shoreline stabilization along Shorehaven Avenue
- disturbance of residential areas by water skiing, hunting

- potential for major new commercial or residential development at Cove Marina
- open space land at Taylor Farm undefined & subject to misuse
- incoherent collection of parks/open space lands
- land of public boating facilities
- inconsistant zoning and land use

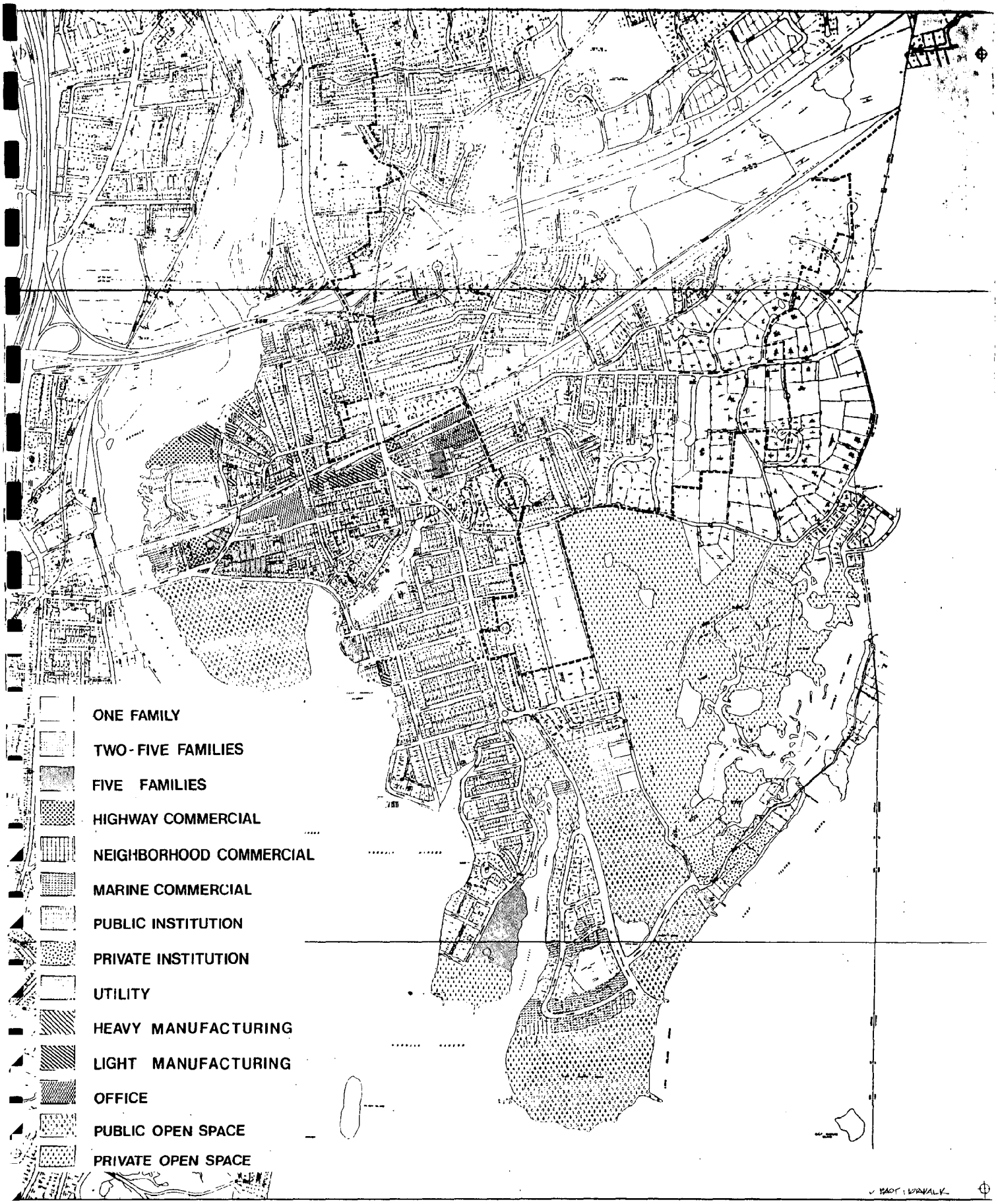
Additional Sources:
Mathews Park Master Plan, 1981
Veterans Park Master Plan, 1981
Master Plan of land Use, 1973
Master Plan of Parks & Open Space, 1977
Norwalk Harbor Management Study, Peter Pelligrino, PHD

E. The Islands

A unique feature of Long Island Sound, the Norwalk Island Archipelago represents a critical environment and ecosystem for oystering, finfishing and tidal wetlands. The islands were rezoned in 1974 from B Residence to Island Conservation Zone which permits a density of 1/2 dwelling unit/acre of land. The housing may be clustered and wetlands and natural features are to be preserved. Three of the islands are owned by the City of Norwalk: Shea Island, The Plains, and Grassy Island as permanent open space.

The Islands have regional and national significance as recognized in the Long Island Sound Heritage Bill introduced in Congress in 1978. They have been cited as an important open space preservation area in the State of Connecticut's Plan of Conservation and Development and the Long Island Sound Study.

The future of the remaining privately owned islands remains in doubt. however. Chimmons and Sheffield Island are particularly vulnerable to development because of their size and location. While development on the islands would be extremely costly in terms of utilities.



COASTAL MANAGEMENT PROGRAM
EAST NORWALK LAND USE

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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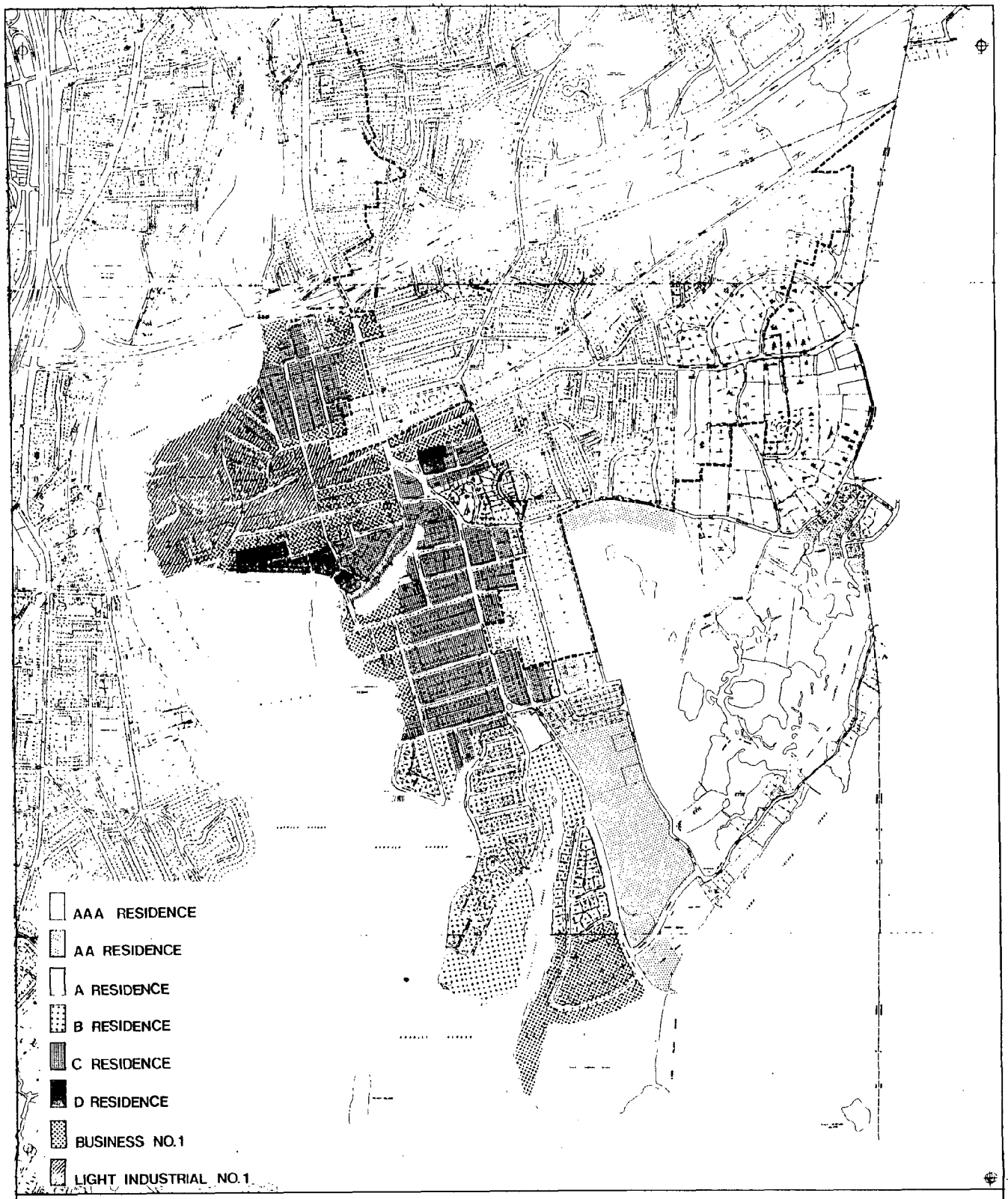

COASTAL MANAGEMENT PROGRAM
EAST NORWALK ZONING

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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transportation, and regulatory requirements, it is not inconceivable that a luxury summer or year-round development might be built there.

An outstanding feature of the Islands is the unique heron rookery on Chimmons Island, a valuable sanctuary for these birds that is unequalled in Long Island Sound. The 1860's Lighthouse on Sheffield Island of stone construction is an important coastal historic landmark marking the entry to Norwalk harbor. Tavern Island's year-round mansion built by Broadway producer Billy Rose lends character and style to this small island. Finally, the island archipelago represents an outstanding coastal resource in Long Island Sound.

The 1973 Master Plan of Land Use identified the entire island archipelago for open space acquisition. In 1977 the Master Plan of Parks & Open Space called for the acquisition of Chimmons and Sheffield Islands as public open space, and the protection of the remaining islands as private open space.

The Norwalk Islands: Summary of Issues

The following issues have been identified for the Islands:

- lack of public access
- uncertain future of Chimmons Island heron rookery
- historic preservation of Sheffield Island lighthouse, Billy Rose House on Tavern Island
- critical environment/ecosystem for oystering, finfishing, and open space
- high aesthetic value & coastal resource threatened
- zoning permits development 1/2 unit/acre

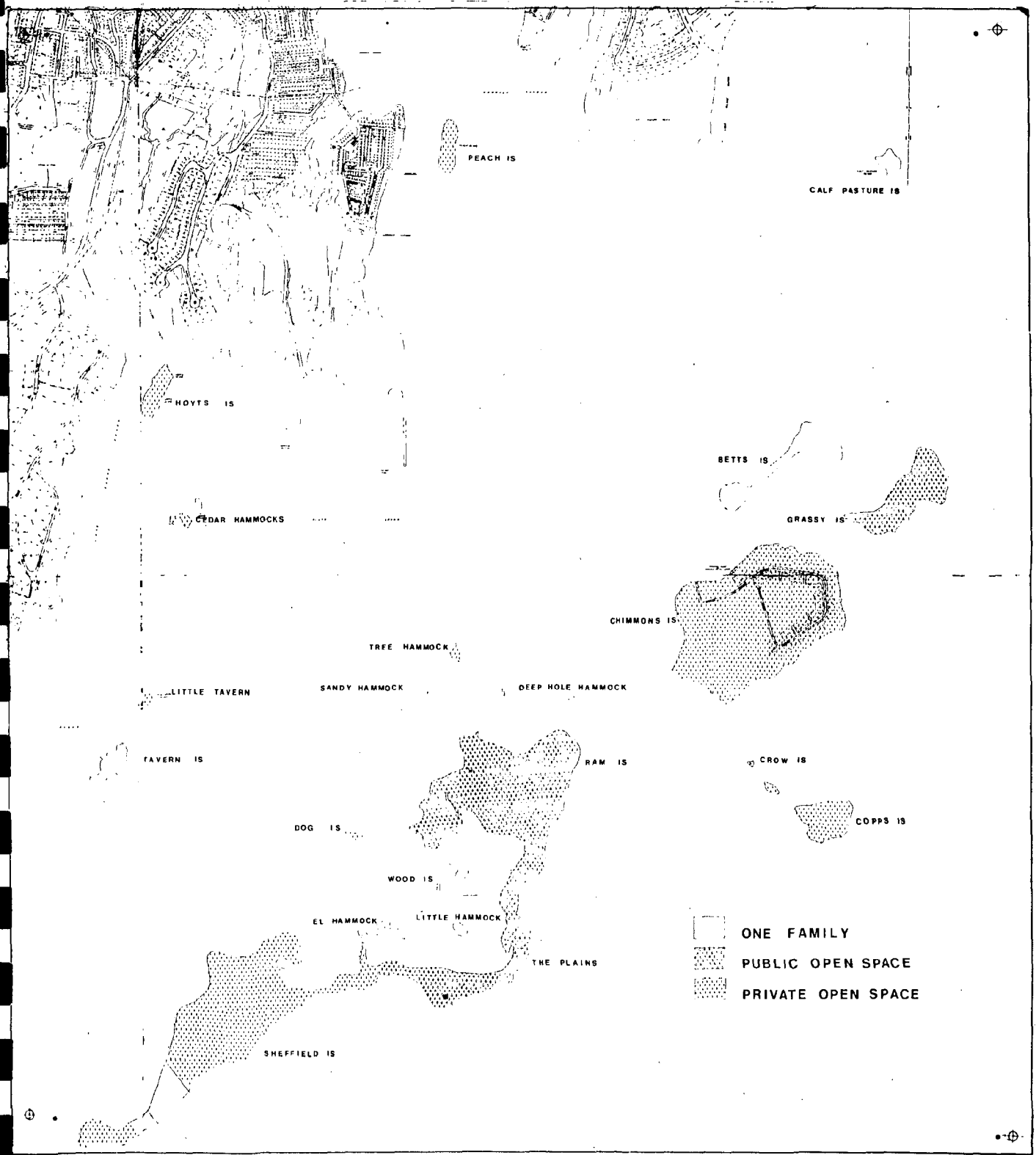
WATER QUALITY & NATURAL FEATURES

Water quality is the measure of a pollutant which occurs in a water segment. Based upon the measured pollution level in a water segment, the water is classified and specific uses are permitted and/or prohibited. Uses may include swimming, finfishing, shellfishing, and boating. Water quality reflects nearby land use patterns and the pressures which these land uses impose on the water system.

Norwalk's rivers and harbors and the Long Island Sound basin served many disposal functions. Historically, local waterways have served as a community's sewer system. Norwalk typically dumped raw or partially treated sewage into the harbors; industries disposed of chemical waste materials; and utility companies and industries have used local water for cooling processes. In response to this degredation of waterways, federal and state governments have instituted pollution control programs designed to eliminate pollution from waterways expanding the scope of permitted uses.

To reduce the water quality problem, Norwalk operates a secondary treatment plant capable of removing about 90 percent of the generated organic wastes from the system. However, the plant is fed by a combined sewer system, that is, a system which carries both sanitary sewage and storm water runoff from city streets. Studies conducted in the late 1970's indicated that the principal source of water quality degredation in Norwalk Harbor is the combined sewer overflow of municipal and industrial discharges which have contaminated harbor sediments and reduced dissolved oxygen supplies. As a result of combined sewers, when a substantial amount of rain falls, the plant's treatment capacity is surpassed and the entire load is discharged directly into the river. This overflow increases human and environmental health risks. Norwalk's treatment plant was upgraded in 1981 to include supplemental treatment facilities.

Plans to lay separated sewer systems throughout the city will result in the channelization of storm water runoff directly to the river while sanitary sewage is funneled to the treatment facility.



COASTAL MANAGEMENT PROGRAM
THE ISLANDS LAND USE

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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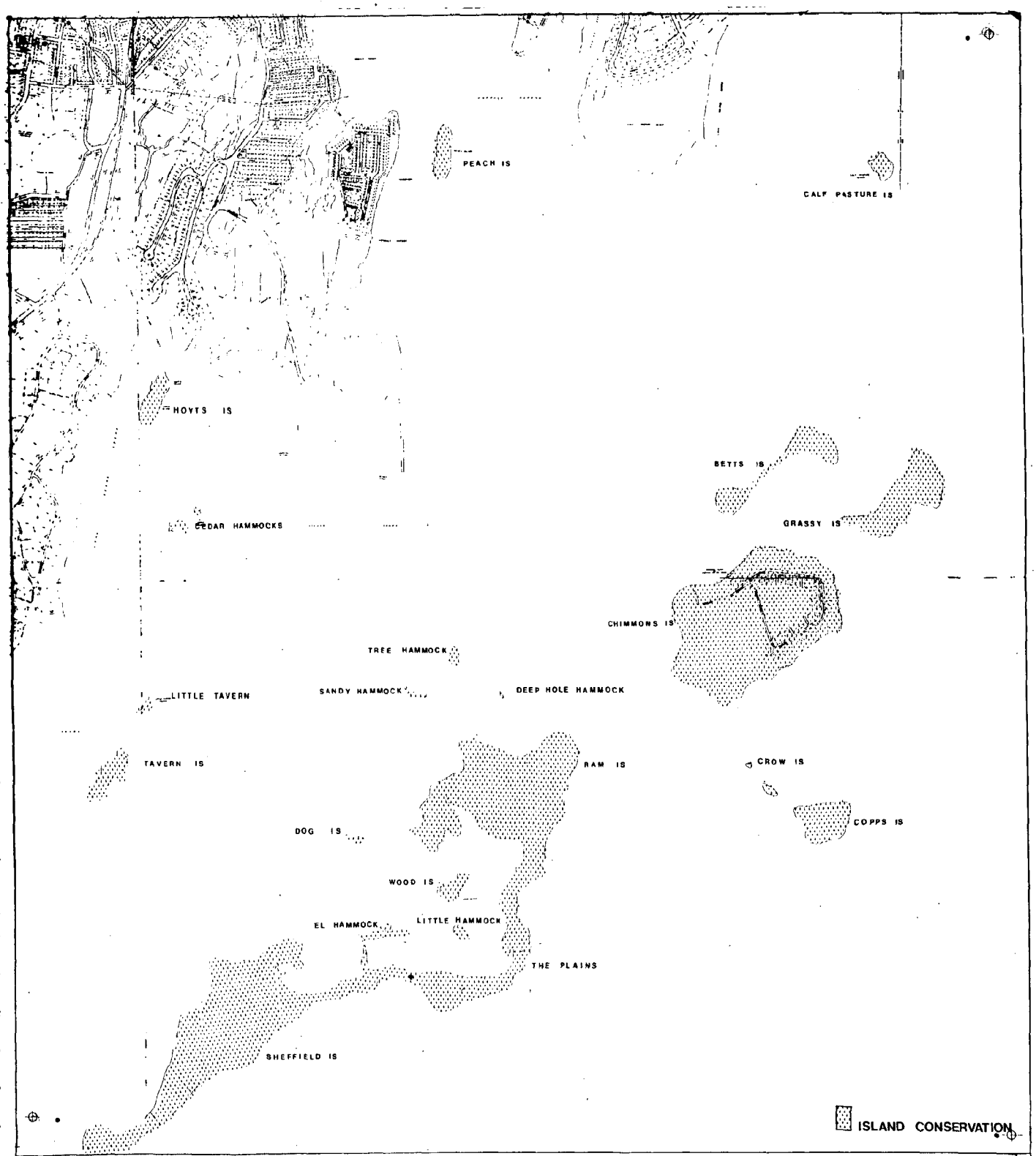

COASTAL MANAGEMENT PROGRAM
THE ISLANDS - ZONING

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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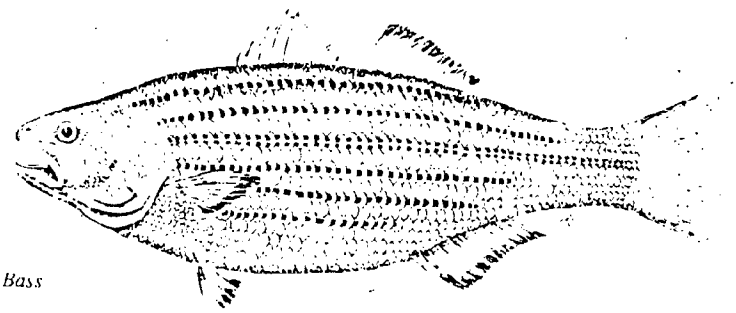
Closure of the city's landfill in 1980, has forced Norwalk to accept the costly option of transporting garbage to the town of New Milford, approximately 35 miles away. Although this disposal method is adequate today, it is unlikely that inland communities can or will desire to accomodate the city's garbage indefinitely. Alternative disposal and resource recovery programs must be developed. The landfill site, although not physically stable, is the proposed site for a commercial and waterfront park complex.

The following water quality issues have been identified:

- Is water quality at some sites so deteriorated that additional water-based activities should be discouraged?

- Where does water quality need improvement to allow additional recreational uses?

- How can water quality be improved?



Striped Bass

COASTAL RESOURCES

The Connecticut Coastal Area Management Program has identified fourteen Coastal Land and Water Resources (Coastal Policies and Use Guidelines, Planning Report #30). In order to further delineate these Coastal Resources the Planning and Zoning Commission conducted its own coastal survey. The results of that survey are described in the following pages and accompanying maps.

For the purposes of this survey field observation was the primary method employed along with analysis of soils and surficial geology maps prepared by the State CAM office.

Of major importance throughout the coast are the large number of undesignated tidal wetland plant species, many of which seem to be relatively young and establishing themselves along highly stressed portions of the shore. The survey has rated the condition of bulkheads and seawalls, many of which are in poor condition adding to the siltation and dredging problems of the harbor. A final, unclassified resource, but one which is of note is the tidal pools which occur off of Bell Island.

A wide variety of wildlife was observed during the survey including a Diamond Backed Terrapin observed swimming in the upper harbor. Birds including the ibis, egret, heron, gulls and swans, ducks, shorebirds, tern, comorant, rails and assorted terrestrial species can be found within Norwalk's Coastal Area boundary, attesting to the fact that Norwalk's shoreline has numerous sanctuaries for wildlife.

The following coastal resource definition, which are a further refinement of the State CAM definitions, were used in classifying the water and shoreline:

State C.A.M. Coastal Resource Designation	Norwalk Coastal Resource Designation
E-Coastal Bluffs and Escarpments	(Same)
mE-Modified Bluffs and Escarpments	mE-1 - Bulkhead in good condition mE-2 - Bulkhead in poor condition mE-3 - Seawall in good condition mE-4 - Seawall in poor condition mE-5 - Filled area mE-6 - Shore stabilization through Rip Rap
mB-Modified Beaches and Dunes	(Same)
R-Rocky Shorefront	(Same)

State C.A.M. Coastal Resource Designation	Norwalk Coastal Resource Designation
Coastal Flood Hazard Area	(Same)
Freshwater wetlands and Undesignated Tidal wetlands	See 'Regulated tidal wetlands'
I-Islands	(Same)
Shorelands	(Same)
B-Beaches and Dunes	Sandy beach - beach composed of sand and small stones
	Rocky Beach - consists of stones approximating the size of cobbles.
D-Developed shorefront	(Same)
W-Water	(Same)
T-Regulated Tidal Wetland	Tidal wetlands - areas containing marine grasses which are inundated at high tide and exposed at low tide
Intertidal Flats	Relatively flat expanses of sediments (muds and sands) subject to alternating periods of tidal inundation and exposure.
Estuarine embayments	(Same)
Nearshore waters	(Same)
Offshore waters	(Same)
Coastal Boundary	(Same)
-	Tidal Pools - pools of salt water exposed at low tide and usually found on rocky areas.

Rowayton

- Coastal Resources

Rowayton has a diverse coastal environment ranging from the natural features of its salt marshes to the metal, wood or cement bulkheading which line much of its commercial area.

South of the White Bridge which links Rowayton to Darien in the Five Mile River channel is an extensive mudflat which is exposed at low tide. This flat continues south to a point adjacent to the Rowayton and Wilson Avenue intersection. It is bordered by rip rap on its northern sections and strips of designated tidal wetlands throughout its eastern shore. On the west it is accompanied by an area of tidal pools.

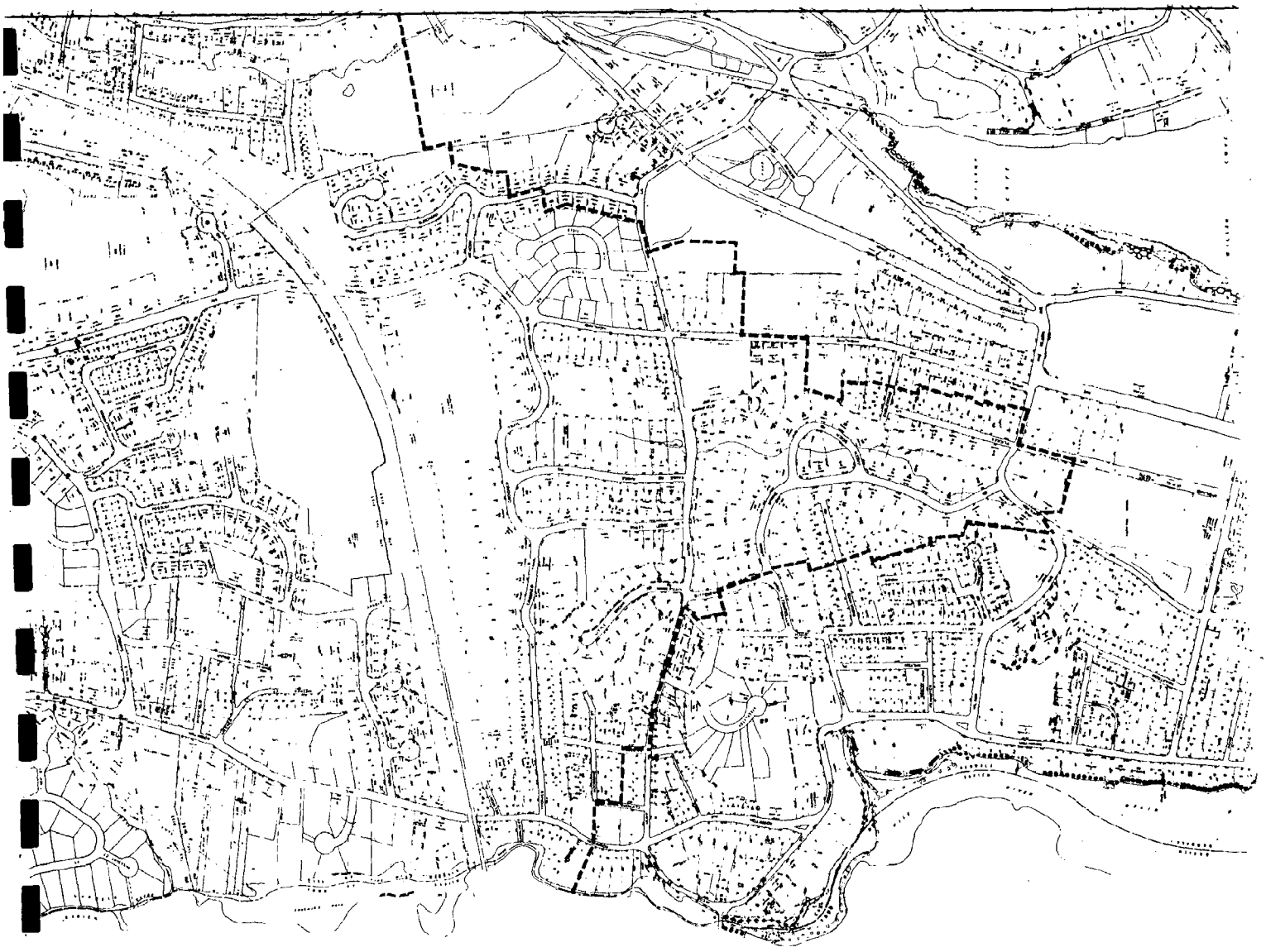
The commercial zone shoreline which extends from Wilson Avenue south to Cook Street is completely bulkheaded and dredged for marine uses. The condition of these bulkheads is generally good with few exceptions. South of Cook Street to Juniper Street is found an area of rocky beach and tidal pools below its stabilizing seawall.

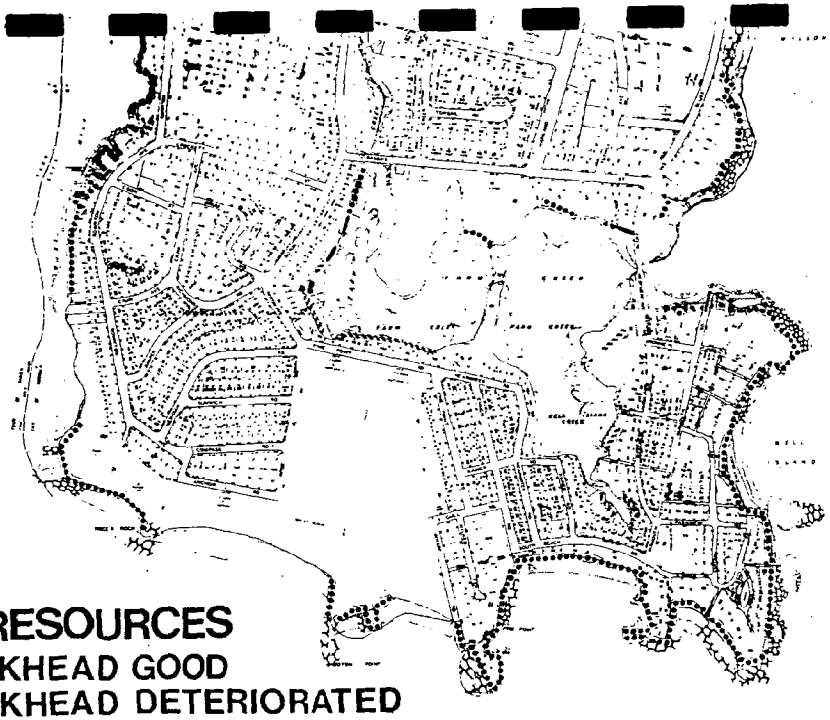
The area south of Juniper Street to the south eastern corner of Bell Island is characterized by rock outcroppings and sandy beaches with occasional seawalls to stabilize portions of the bank.

Bordering the southeast corner of Bell Island is a conglomeration of resources including tidal pools and undesignated wetlands rocky and sandy beaches, with small areas of rocky shorefronts as well. A small sandy beach area (East Beach) is located on Bell Island's eastern shore that has exposed tidal pools along the waters edge at low tide. Continuing north to the north of Farm Creek there is again a mixture of resources including mudflats, wetlands, sandy beaches, rocky shorefront, and tidal pools.

At low tide Farm Creek is an extensive area of intertidal flats and designated tidal wetlands.. The southwest corner of the creek has areas of fill for development purposes and its western extremities have been stabilized with seawalls some of which are in disrepair.

The northeastern strip of shoreline in Rowayton is comprised of alternating areas of seawalls, rocky shorefronts and unstabilized areas. A narrow strip of intertidal flat is exposed at low tide with occasional areas of tidal pools and designated tidal wetlands as well.





COASTAL RESOURCES

- mE1 BULKHEAD GOOD
- mE2 BULKHEAD DETERIORATED
- mE3 SEAWALL GOOD
- mE4 SEAWALL DETERIORATED
- mE5 FILLED AREA
- mE6 RIPRAP
- ROCKY BEACH
- SANDY BEACH
- ROCKY SHOREFRONT
- TIDAL WETLANDS
- INTERTIDAL FLATS
- TIDAL POOLS
- -E- ESCARPMENT
- -I- ISLANDS
- -D- DEVELOPED SHOREFRONT
- -EM- EM ESTUARINE EMBAYMENTS

COASTAL MANAGEMENT PROGRAM

ROWAYTON

SOURCE: 1981 COASTAL SURVEY, NORWALK PLANING & ZONING COMMISSION

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

FEET 400 0 1000
MILES 0 ¼

The wetlands and mudflat areas of Rowayton, especially the Farm Creek area support a large array of wildlife, including birds, shellfish, and juvenile finfish.

• Soils

The major soil types in Rowayton are the 1) typic undorthents. cut and fill 2) Charlton-Hollis fine sandy loams 15-40% slope 3) Hollis-Rock outcrop complex 15-35% slope, and the 4) Hollis-Rock outcrop complex 3-15% slope -

• Surficial Geology & Shoreline Changes

Much of Rowayton's coastal land area is not of natural origin. A large portion of its land was created by filling in of tidal wetlands or flood plains. Natural granite and mica quartz gneiss outcroppings occur occasionally along Rowayton's interior sections, with larger projections distributed fairly evenly throughout. Larger areas of mixed outcroppings and glacial till can be found in the northeastern regions of Rowayton around Wilson Cove.

The outer shoreline has changed relatively little over the past 145 years. Extensive fill has been placed behind the shoreline as indicated by the soil types. The Five Mile River or western side of Rowayton has expanded by fill and been stabilized by bulkheading, while the beach areas on the southern shore have generally advanced as well. Conversely, the eastern shore has receded slightly. The remaining areas have stayed virtually unchanged.

• Shellfish Concentration Areas

The Soft Clam (Mya arenaria) can be found in the Five Mile River channel while the Hard Clam (Mercenaria mercenaria) and Eastern Oyster (Crassostrea virginica) are found throughout the Five Mile River inlet, Wilson Cove, Farm Creek and an extensive area off of the Eastern coast of Bell Island.

SOUTH NORWALK

• Coastal Resources

The South Norwalk coastline stretching from the Western side of Wilson Point to Mack Street in the "Shorefront" area has as diverse an array of natural resources and coastal features as was found in Rowayton.

Wilson Cove's eastern coast remains in a natural state through its upper 800 feet of inlet. Here is found a thin strip of intertidal flat exposed at low tide and a narrow buffer strip of designated tidal wetlands. An expanse of rip rap covers the coast to its southerly tip while additional strips of designated wetlands occur sporatically along this shore.

Modified escarpments in the form of rip-rap and seawalls line the point itself and extend over 2,000 feet up its eastern shore, small pockets of rocky shorefront, designated intertidal wetlands and tidal pools are exposed at low tide. A large expanse of intertidal flat lines all of Wilson point's eastern coastline except for its southerly most 1500 feet. The shoreline has remained in a natural state with only 2 exceptions of modified escarpments. This area contains tidal pools, rocky shorefronts, and designated tidal wetlands including a man-made tidal pool.

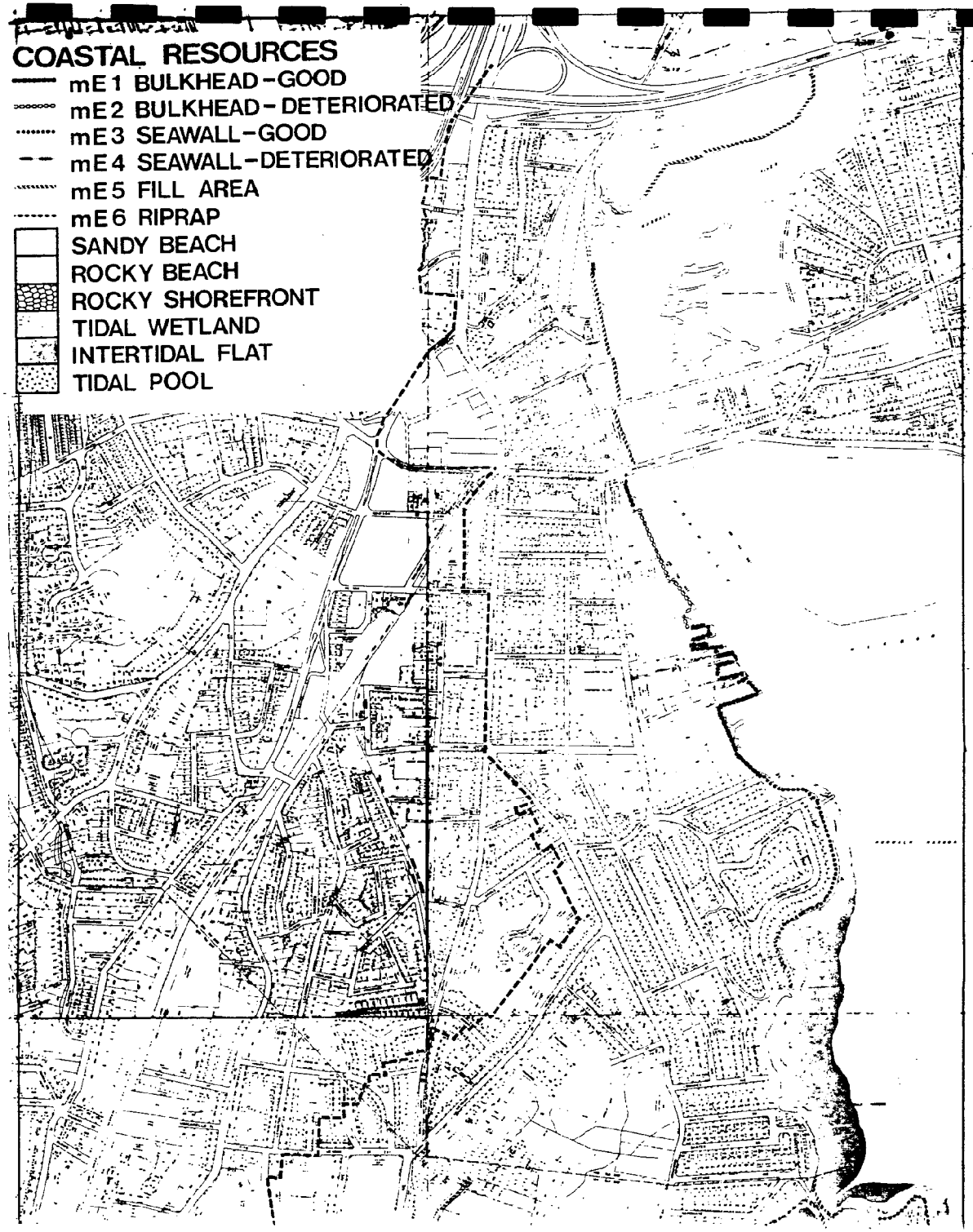
The Village Creek marsh area is a 93 acre expanse of designated tidal wetlands and intertidal flats. Another such area is the 65 acre marsh area found to the north west of the Manresa peninsula. This area is considered to be prime wildlife habitat. These marshes are nesting and feeding areas for rails, ducks, swans, shorebirds and wading birds, filtering systems for the salt water and nurseries for juvenile finfish and shellfish.

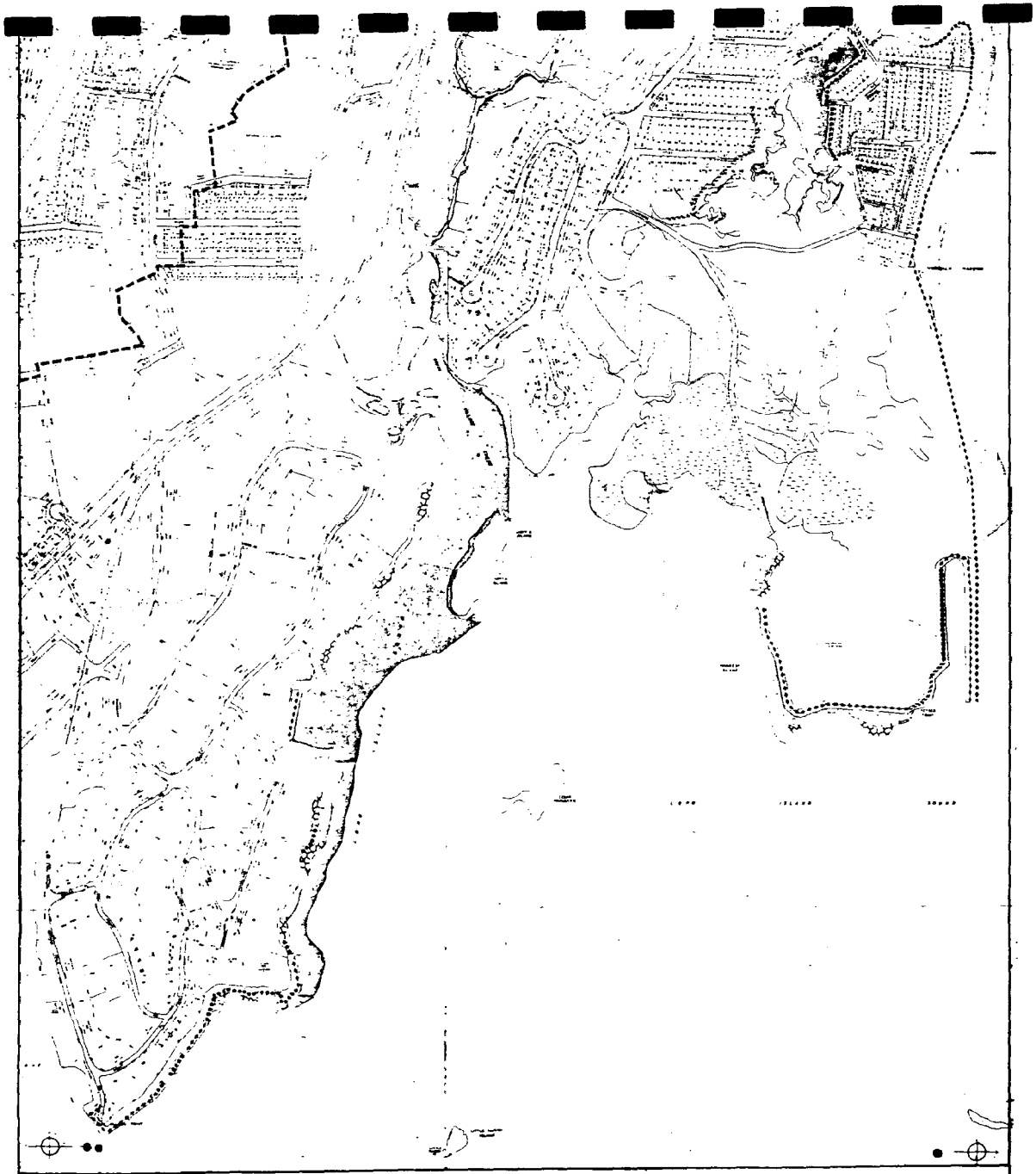
Manresa Peninsula itself is bordered by an extensive wall of rip rap and seawall that extends to the northeast corner of the Harborview area. Areas of designated tidal wetlands and tidal pools with lesser areas of rocky shorefront are found on Manresa's southerly tip. These areas as well as stretches of mudflat can also be found on the eastern shore of Manresa and Harborview.

The Harborview marsh, once an extension of the Manresa wetland, has been altered somewhat by the filling and bulkheading of portions of its banks. From Neptune Street north for approximately 2,000 feet is a stretch of natural shorefront with areas of sandy beach, mudflats and designated tidal wetlands. The remaining 2,000 feet of coastline, north to Mack Street is stabilized by seawalls. Intertidal flats, sandy beaches and designated tidal wetlands are exposed at low tides.

- Soils

The soil types found in Wilson Point and South Norwalk are very similar to those found in Rowayton. The most common soil types in this area are the 1) typic udorthents, cut and fill 2) Charlton Hollis fine sandy loams, 3-15% slopes, 3) Westbrook mucky peat 4) Hollis Rock outcrop complex 3-15% slope 5) Hollis Rock outcrop complex 15-35% slope and 6) Tisbury silt loam, 0-3% slopes. The existence of these


COASTAL RESOURCES
mE1 BULKHEAD-GOOD
mE2 BULKHEAD-DETERIORATED
mE3 SEAWALL-GOOD
mE4 SEAWALL-DETERIORATED
mE5 FILL AREA
mE6 RIPRAP
SANDY BEACH
ROCKY BEACH
ROCKY SHOREFRONT
TIDAL WETLAND
INTERTIDAL FLAT
TIDAL POOL



COASTAL MANAGEMENT PROGRAM
SOUTH NORWALK

SOURCE: 1981 COASTAL SURVEY, NORWALK PLANNING ZONING COMMISSION

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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soils dictates a large use of fill and shore stabilization for development purposes, as well as soils reflective of glacial deposits.

• Surface Geology - Shoreline changes

The Wilson Point peninsula displays numerous bedrock outcropings separated by glacial till.

Village Creek and Manresa marsh are composed of salt marsh deposits which are made up of salt peat, silt and clay. The drier areas surrounding these marshes are comprised of glacial fluvial deposits, such as gravels and sands. Isolated bedrock outcropping occur throughout.

Except for a 2500 foot strip of land north of Harborview marsh the entire South Norwalk/Wilson Point coast has been altered by landfilling since 1835.

Manresa and Harborview were islands in 1835 and have since been connected to the mainland by filling of shallow waters and marshes. Stabilization of this land is achieved through bulkheading and seawalls.

Shellfish Concentration

Wilson Cove presents the sole area of shellfish concentration in this section. The Hard Clam, (Mercenaria mercenaria) is the only inhabitant to these waters in large concentrations.

NORWALK

• Coastal Resources

The area of Norwalk's coastline North of Mack Street to the Wall Street bridge and south to Interstate 95 is used mostly for commercial and industrial purposes. At present few areas remain that have not been bulkheaded, and no designated tidal wetlands remain in Norwalk's upper harbor except for an area around the sewage treatment plant which subsequently has been filled.

The Heavy Industrial zone north of Mack Street is intensely bulkheaded up to the Washington Street bridge. A small area of rip rap and fill is located in the central portion of this section. These bulkheads are generally in good condition along the west bank in the southern section of Water Street, but the area north of the Washington Street bridge consists of a badly deteriorated bulkhead and eroding shoreline.

North of the railroad bridge is an extensive area of fill that continues for approximately 1200 feet with pioneer plant species thriving on drier portions of the bank. Directly adjacent to Liberty Square

south of the Norwalk landfill site is one of the few remaining relatively untouched areas in the upper harbor. A small section of undesignated tidal wetlands exists here.

The shoreline of the former Norwalk landfill just south of I-95 is unsightly and relatively unstable. Pioneer plant species are beginning to stabilize the upper banks of this highly disturbed area but formal shoreline stabilization is clearly needed. North of the thruway for 1200 feet on the west side is a stretch of filled area followed by a bulkhead which is in good condition. Small strips of intertidal flat follow but seem out of place midst the bulkheading, fill areas, and seawalls which line the river's west bank to the Wall Street bridge. These structures are generally in varying states of deterioration and add to the erosion and sediment problems found in the Norwalk River.

The same deterioration is found on the River's eastern bank with the entire length filled, bulkheaded or seawalled south to a marsh area just north of the interstate. Again half of the structures are in poor condition and in great need of repair.

The section of land 2000 feet north of the interstate does expose intertidal flats and undesignated tidal wetlands at low tide.

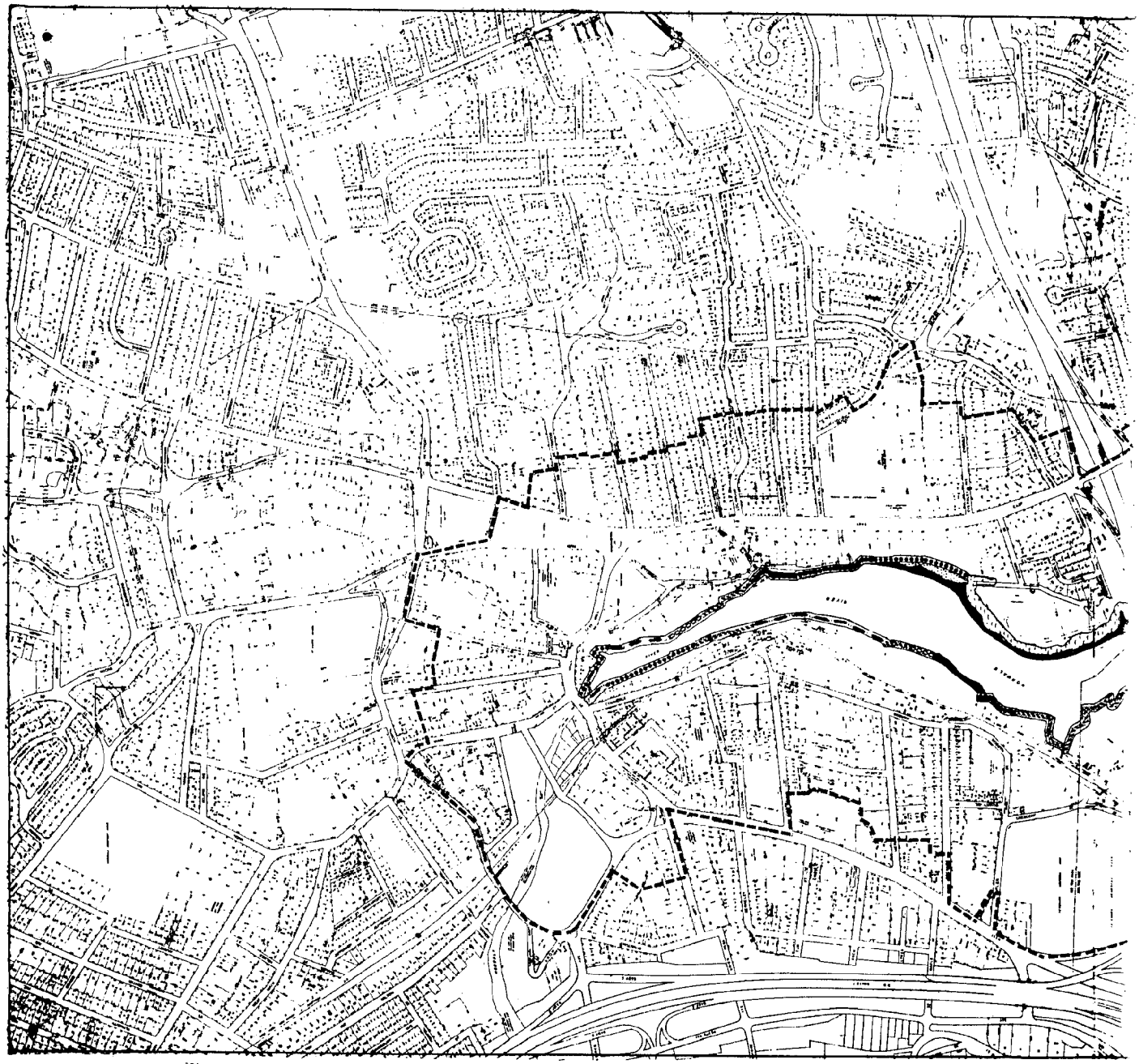
• Soils

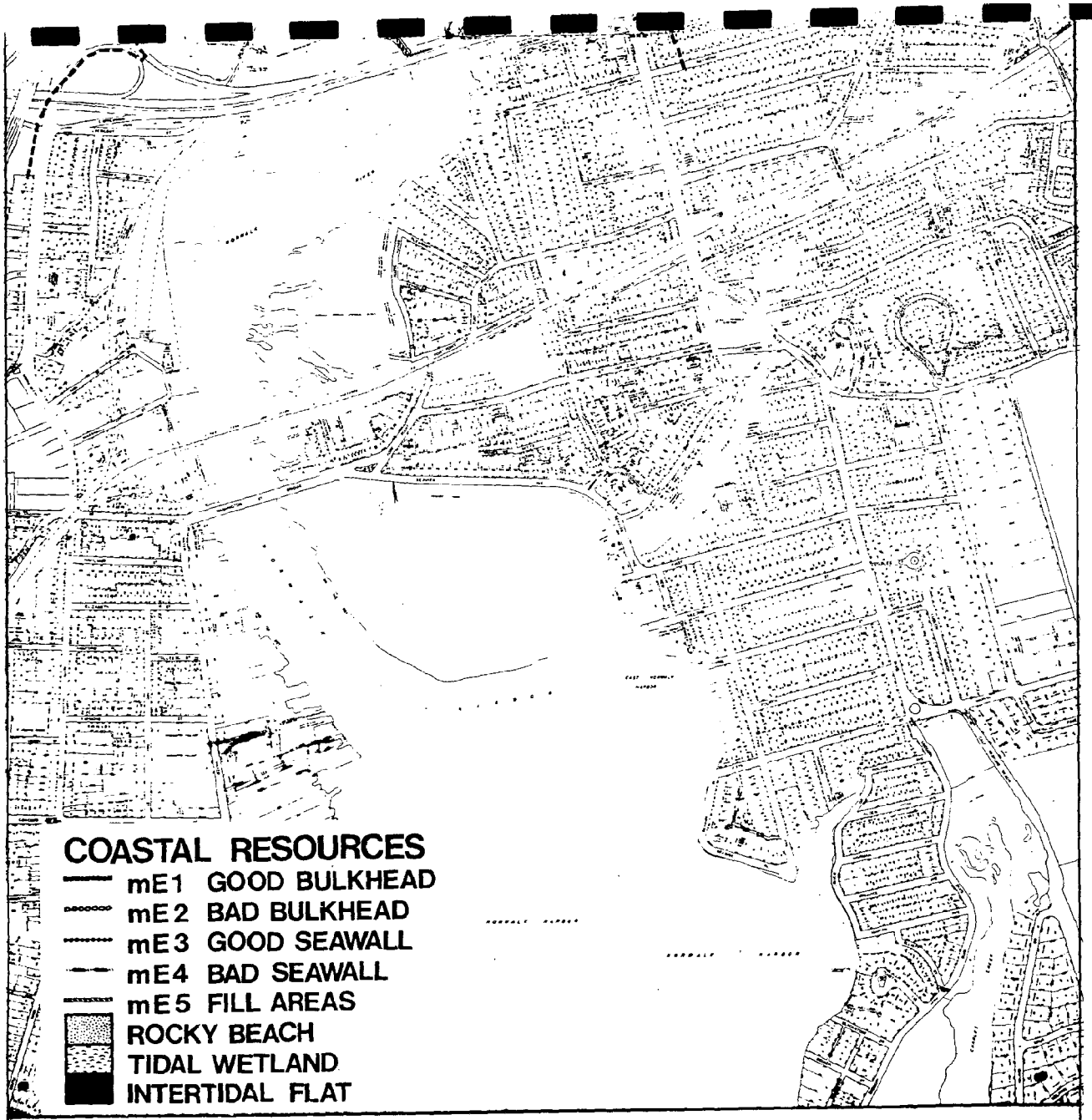
The major soil types in this area show a radical difference from those found in Rowayton and South Norwalk. This area is almost entirely man-made fill. The major soil groups are the: 1) Urban land type, and the 2) typic udorthents, cut and fill, neither of which are indigenous to this area.

• Surface Geology and Shoreline Changes

Due to the magnitude of fill in the upper harbor area there is little surficial geology of any significance besides two estuarine deposit areas of silt and mud in the forementioned marsh areas. The shore of Norwalk's upper harbor shoreline has changed greatly since 1835. The banks have been stabilized and floodplain filled.

The river bank 100 years ago was much wider and less regular in shape, with many inlets, peninsulas and islands occuring along its banks. Today the river channel is a gradually widening series of graceful curves bulkheaded, seawalled, filled, or simply left untouched for the time being.





COASTAL MANAGEMENT PROGRAM

NORWALK CENTER

SOURCE: 1981 COASTAL SURVEY, NORWALK PLANING & ZONING COMMISSION

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT
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EAST NORWALK

The section of Norwalk's coast south of interstate 95, east to the Westport line has a large percentage of land directly accessible to the water for public use than do the other areas. Less of this section is bulkheaded or seawalled in comparison and water recreation facilities are more common and heavily used.

Only one 20 foot section of bulkheading exists along Norwalk's harbor south of I-95 to the eastern most point of Veterans Memorial Park. The river's banks in this area are lined mostly with undesignated tidal wetlands, intertidal flats and occasional areas of fill. The marsh immediately north of the railroad bridge, belonging to Norwalk's sewage Treatment Plant has been labeled a designated tidal marsh. A major natural resource of Norwalk's harbor is the extensive intertidal flat that exists along the southern section of Veteran's Memorial Park.

Mill Pond, which is tide fed, is situated to the east of Veteran's Park. Its banks are occupied by alternating sections of seawalls which are in good condition, and undesignated tidal wetlands.

The Eastern side of East Norwalk Harbor south of Seaview is an extensive stretch of modified escarpments which reaches to the southern tip of Gregory Point. These bulkheads and seawalls are generally in good condition. Small interspersed areas of undesignated marshes, sandy beaches, intertidal flats and filled areas occur between and in front of these stabilized areas.

The southern tip of Gregory Point is lined with a sandy beach area.

Charles Cove's southwestern area is bulkheaded as is its south eastern bank. The middle and upper cove is lined with mud flats, undesignated tidal wetlands, rocky beaches and rocky shorefronts.

Between Charles Cove and the Calf Pasture Park peninsula is a marina with bulkheaded banks in variable conditions as well as areas of fill.

Calf Pasture Peninsula remains in a fairly natural state. Undesignated wetlands line its southern exposure and support a sandy beach area on its eastern shore with a narrow strip of mudflat exposed at low tide. The beach area extends some 2500 feet before it is reduced in size by a series of seawalls and rip rappings beyond its eastern border. Seaside of these modified escarpments is a narrow section of beach which extends to the mouth of Canfield Island Marsh.

An extensive expanse of designated tidal wetlands, intertidal flats and smaller areas of tidal pools, rocky and sandy beaches, rocky shorefronts and filled areas, create a highly productive natural

setting which supports large quantities and varieties of marine life and their dependants. Large numbers of marine species exist in this beautifully picturesque setting. It is a nesting area as well as a refuge for migratory birds.

• Soils

As was found in the previously mentioned sections of Norwalk, this region also contains a large percentage of filled and altered land. Seemingly the only area that has remained with its natural soil type is the Canfield Island marsh and upland zones. The soil designations in this region are the 1) typic udorthents, cut and fill, 2) urban land, 3) merrimac sandy loam, 0-3% slope, 4) Westbrook mucky peat 5) merrimac sandy loam 3-8% slope and the 6) agawam fine sandy loam 0-3% slope

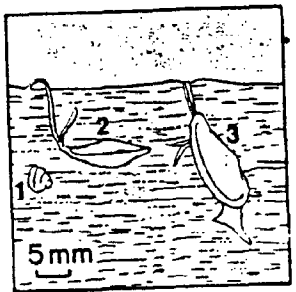
• Surface Geology and Shoreline Changes

Much of the coastal areas are comprised of artificial fill. Salt marsh deposits of salt peat and stratified silts and clays are found in Canfield Island marsh and at Gregory Point's west side. Small areas of glacrofluvial deposits and bedrock outcroppings are found in the uplands of Taylor Farm, to the north of Calf Pasture Beach.

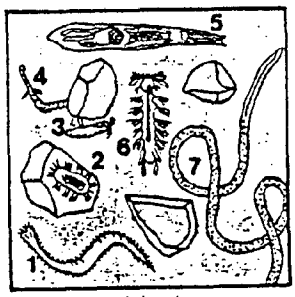
The shape of the shoreline has been altered extensively by the filling of lowlands especially around the Gregory Point Peninsula, Calf Pasture Peninsulas, and the north border of Canfield Island Marsh. The land area has grown considerably in dimensions since 1835

• Shellfish

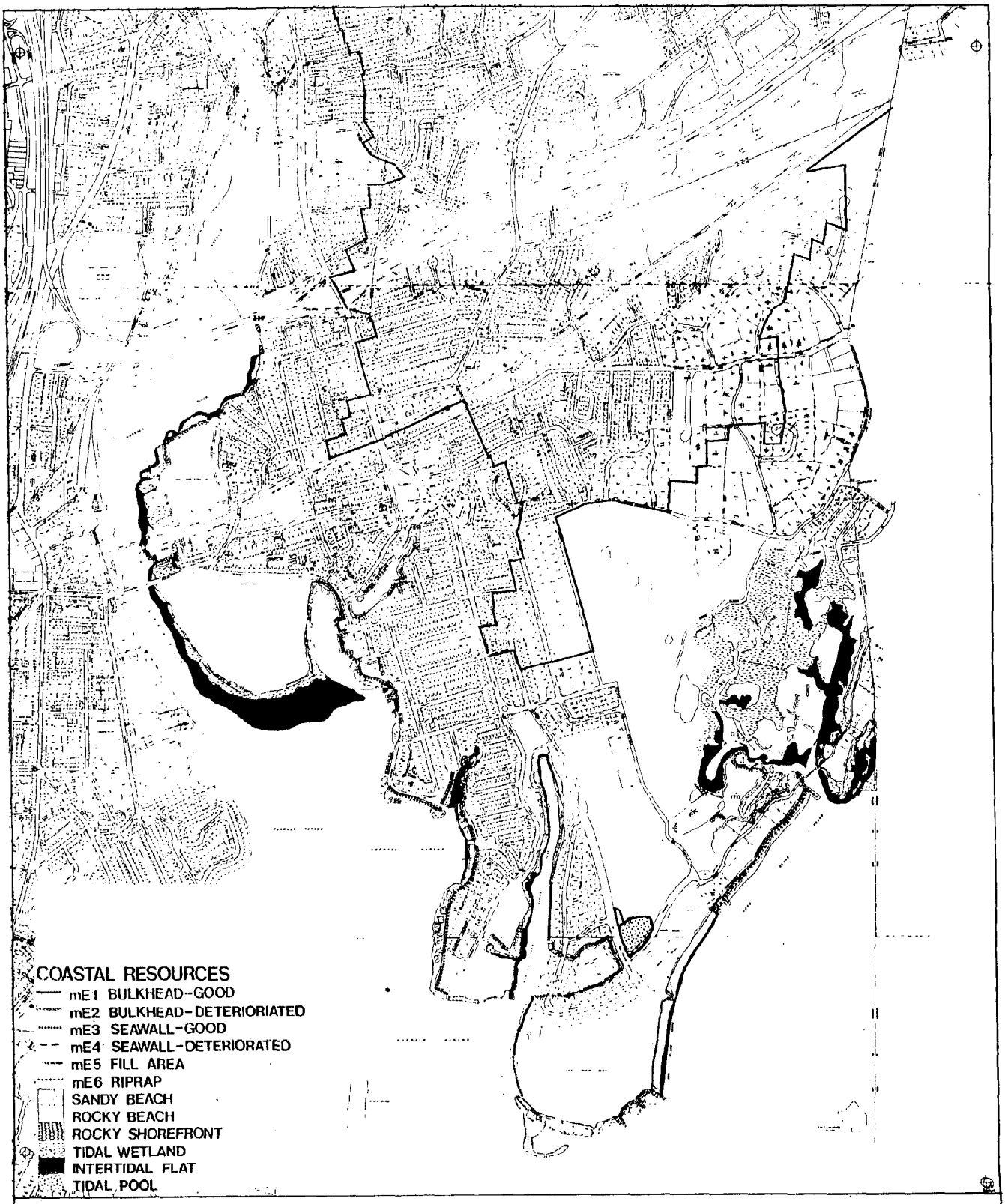
No areas of shellfish occur directly off shore from East Norwalk, however, extensive tracts of the Sound are open for shellfish harvesting in the vicinity of the Norwalk Islands and adjacent to Calf Pasture and Shady Beach.



Infauna: Deposit-feeding clams. 1. *Nucula*. 2. *Tellina*. 3. *Yoldia*



Interstitial (living between particles of sediment, in this case, sand) meiofauna: 1. Ciliate, 2. Tardigrade, 3. Ostracod, 4. Hydrazoan, 5. Flatworms, 6. Archiannelid, 7. Nematode



COASTAL MANAGEMENT PROGRAM
EAST NORWALK

SOURCE: 1981 COASTAL SURVEY, NORWALK PLANNING & ZONING COMMISSION

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

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NORWALK ISLANDS

Norwalk's islands, located from one to two miles off its shores, create a buffer zone that lessens the disruptive forces of wave and current action on Norwalk's harbor and coastline.

Three main islands, Chimmons, Shea, and Sheffield, and sixteen smaller islands were formed by glacial deposition. These terminal morains today contain large numbers of birds, and a host of intertidal species of grasses and aquatic life each of which supports its own dynamic community.

Chimmons Island holds one of the largest avian nesting sites in Long Island Sound. Gulls, herons, egrets, ibis, ducks and assorted songbirds call Chimmons Island home during the warmer months. It is noted for its heron rookery - a feature that makes it unique in all of Long Island Sound.

The northern shore of Chimmons has two areas of steeply sloping cliffs composed of boulders. The remaining circumference is a gravel to cobble sized rocky beach with exposed intertidal flats at low tide.

All of Ram Island's shorefront except the sheltered cove area on its southwestern side is of the gravel to cobble type cover. The cover itself is an interface between glacial till and water. No beach area has been created by the depositional process. Small strips of intertidal flats are positioned around the edges of the beach areas. A small stretch of undesignated tidal wetland is situated in the north west corner of the sheltered cove.

Sheffield Island is lined with a seawall along its western exposure where remains of deteriorated house and adjacent pier stand. The remaining shoreline of Sheffield Island is composed of gravelly to cobbly beaches with intertidal flats exposed at low tides. Two areas of brackish wetlands occur inland in the higher elevations, both on the north western portions of the island.

Betts, Grassy and Copp Islands all have the indigenous rocky beaches while the remaining smaller islands are simply masses of bedrock or till with no beach to absorb the waters fury.

• Soils

The soils found in the islands upland areas are the 1)Agawam fine sandy loam, 0-3% slopes, and the 2) Agawam fine sandy loam, 3-8% slope, with Beach deposits found along most shore interfaces. The depositions of these soils was caused by glacial action. Long Island was the furthest southern advance of the giant ice sheets in this area. With their retreat came a deposition of suspended materials and hence the creation of Norwalk's islands.

• Surficial Geology

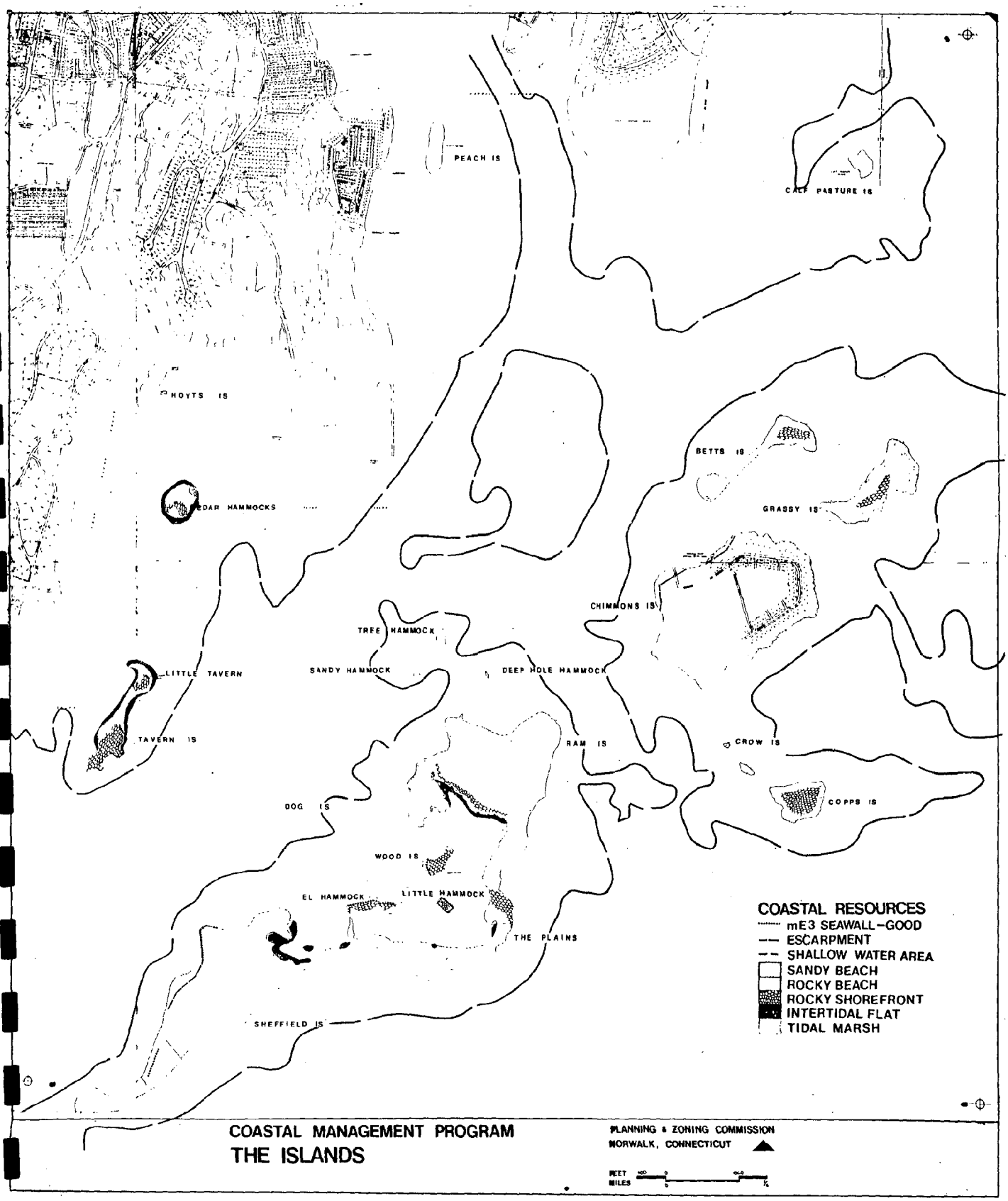
Surficial Geology matches the soil type closely in this area. The upland or higher elevated areas are composed of glacial till, with inland wetland areas made up of salt marsh deposits of salt peat and silt. Again beach deposits line most shorelines. Glacial erratics are common on these islands. These erratics were deposited after being displaced by glacial advances and subsequent retreats. Granite and granite gneiss make up the majority of erratic rock types with lesser abundance of mica-quartz shist deposits.

The overall extent of land surface has not varied greatly since 1835, however, due to the natural forces present in this area, the shapes of the islands have shifted moderately over the years.

The waters around these islands are the prime harvesting area for Norwalk's shellfishing industry. The Eastern oyster (Crassostrea virginica) and the Hard Clam (Mercenaria mercenaria) inhabit the adjacent waters in large numbers. Only the areas directly north west of Shea and Chimmons Islands are not inhabited to any large extent by these bivalves.

Coastal Resource Issues

- How can remaining critical coastal resources be preserved?
- What methods can be used to direct development away from soil types and geological features which would be severely impacted by such development?
- How can developed shorefronts be stabilized to limit shoreline erosion?



COASTAL MANAGEMENT PROGRAM

THE ISLANDS

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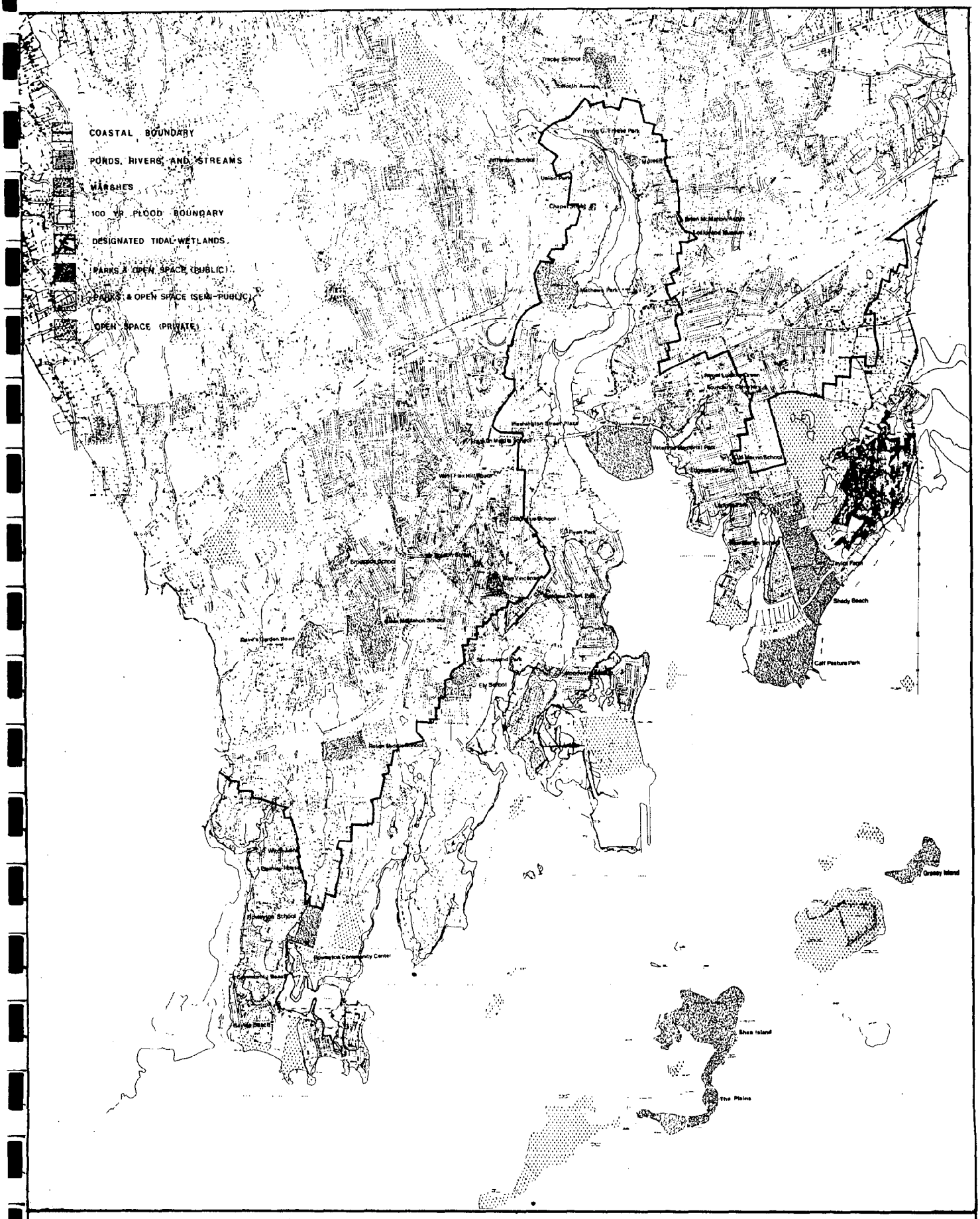

COASTAL MANAGEMENT PROGRAM

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

Parks, Open Space, Waterbased Recreation, and Public Access

I. Waterfront Rediscovery

In 1981, about 200,000 people attended the Norwalk Seaport Association's Fifth Annual Oyster Festival. This September festival, a final salute to summer, is the major waterfront celebration of Norwalk Harbor, the oyster industry, maritime history, and summer recreation. In the near future, the waterfront festival will be complemented by the Maritime Center the proposed nautical museum/aquarium/research complex which will be housed in the Norwalk Fabricator's Building. It is expected that the Center will attract about 500,000 visitors and generate between $1.8 and $2.2 million profit each year.

Clearly, Norwalk's waterfront has been "rediscovered" as an attractive recreational area. As in other urban waterfront communities - both large (like Boston, San Francisco, New York, and Baltimore) and small (Portland, ME, Salem, MA., New Bedford, MA., and Port Judith, R.I.) - a partnership of public and private development forces can create a beautiful bustling harbor. Be it "rediscovery", "renaissance", "rebirth", or "revitalization", Norwalk, like other waterfront communities, has great development potential where an exciting mix of residential, industrial, commercial, and recreational uses can be combined to form an attractive place to live.

II. Parks and Open Space

Of Norwalk's 860 acres of public land, 123.6 acres are located on the coastal area mainland and 83 acres are islands. These municipal land holdings are parks and open space lands.

A. Parks

Parks are publicly owned lands officially designated for public recreation, historic preservation, or conservation. Parks are open to the public and users are subject to established regulations. In Norwalk, parks are classified in four groups.

(1) city parks - large land tracts open to all residents from throughout the city

(2) district parks - medium size land tracts serving groups of neighborhoods

(3) neighborhood parks - small land tracts serving neighborhoods

(4) taxing district parks - land tracts serving taxing district residents.

There are 22 coastal area parks in Norwalk all located on the mainland.

City Parks:

(1) Veterans Park (36 acres) a large park with ballfields, boat launching facilities, municipal marina, play areas, fishing, view of islands, home of Oyster Festival; future site of Harbor Center, Marina Core, and waterfront passive recreation area.

(2) Shady Beach (11 acres) - swimming, picnic facilities, view of islands; open only to city residents

(3) Calf Pasture Beach (33 acres)-swimming, ballfields, picnic facilities, benches, walkways, fishing pier, shellfishing, play areas, Coast Guard Station, summer concerts, view of islands

(4) Lockwood House Museum (1 acre) walks, benches, archives; national historic landmark

(5) Mathews Park (17.8 acres) golf, sledding, Lockwood Matthews Mansion

District Parks:

(1) Mill Pond (0.5 acres)- skating, view of Norwalk Harbor

(2) Rowayton Community Beach (0.5 acres) municipal wharf, view of Five Mile River

Neighborhood Parks:

(1) Witch Lane (1 acre) - play area

(2) Ludlow Park (3 acres) play area

(3) New Marvin School (8.8 acres) - ballfields, play area

(4) Rowayton School (8.2 acres) - ballfields, play area, skating, golf

(5) Ely School (4 acres) - ballfields, play area

(6) Old Marvin School (1.4 acres) - ballfields, play area

(7) Brien McMahon Annex (5.8 acres) - ballfields track

(8) Irving C. Freese Park (0.5 acres) - walks, benches, view of Norwalk River and central business district

(9) Washington Street Park (1.2 acres) - walks, benches, view of National Historic District

Taxing District Parks:

First District:	Norwalk Green
	Klondike Park
Third District:	Edgewater Place
Sixth District:	Pinkney Park
	Bayley Beach
	Rowayton Community Center

B. Open Space

Open space lands are open, undeveloped lands which are either publicly or privately owned. In Norwalk, there are six municipally owned open space land tracts in the coastal area. However, there are no management plans for any of these municipal tracts.

(1) Shea Island (46 acres) - swimming, picknicking, camping, passive activities

(2) The Plains (21 acres) - passive activities

(3) Little Ram Island (3 acres) - passive activities

(4) Grassy Island (13 acres) - passive activities

(5) Taylor Farm (30 acres) - passive activities

(6) Devil's Garden Road (6 acres) - passive recreation

Private open space tracts in the coastal area include:

- Norwalk Islands (14 islands)
- private clubs (Roton Point, Wee Burn, Shore and Country, Ascension, Shorehaven)

- marshland (Hart Property, Kulze Preserve, Langdon Property, Manresa, Village Creek, Wilson Point, Shorehaven/Canfield Island, Charles Creek, Shorefront Park, Harborview, Ann Street railyards)

- private coastal residential associations (with private roads; Canfield Island, Village Creek, Seaside Place, Wilson Point, Rowayton Beach Association, Harborview).

III. Waterbased Recreation

The Norwalk Islands, lying about one to two miles offshore, form a chain about six miles long. These islands protect Norwalk Harbor from storm impacts and add to the area's scenic quality making Norwalk's waters attractive to large numbers of visitors who come to swim, sail, and fish. As well as providing a vital link for waterborne commerce, Norwalk Harbor's five miles of federal navigation channels invite pleasure crafts to local waters. Serviced by numerous marinas, boatyards, and clubs, the harbor is a physically healthy and accessible estuary with unique historical, cultural, and recreational features.

Like Norwalk Harbor, the Five Mile River Harbor is an estuary. However, this estuary is unprotected allowing strong currents and waves to penetrate into the harbor. Despite the potential storm impacts, the harbor has emerged as one of Fairfield County's most popular docking sites. The harbor's eastern bank has been extensively bulkheaded to provide boatslips and access to moorings. It seems, however, that many of the marina, boatyard, and club owners, troubled by changing economic conditions, have redesigned these docking facilities as private "executive boating facilities". Despite the demand for public facilities which have historically crowded the harbor, boating opportunities are rapidly disappearing from the harbor. The loss of these opportunities will undoubtedly jeopardize the federal maintenance dredging of the harbor channel and place additional pressures on other boating areas.

Wilson Cove, Village Creek, Canfield Island Creek and Charles Creek are Norwalk's four minor harbors. Charles Creek has been associated with waterbased recreation for many years. Slowly, however, the Clubs have been replaced by various residential developments which command exclusive use of these waters. The three other harbors (Wilson Cove, Village Creek, and Canfield Island Creek) serve the adjacent residential associations by providing exclusive access to the water's edge. These harbors have no developed public access points.

A. Boating

Surpassed in popularity by only two other waterbased activities (swimming and fishing) boating is the nation's sixth most popular recreational activity. Participation in Long Island Sound boating activities is seasonal with peak use periods on summer weekends.

In Norwalk, thirty private marinas and boatyards, eleven boat clubs, a municipal marina, an undetermined number of mooring spaces secured from the Harbor Master, and several private wharfs accomodate about 4,000 boats in Norwalk Harbor and the Five Mile River Harbor. A list of these facilities appears in Table 1. Norwalk's largest private commercial facility, Norwalk Cove Marina, accomodates about 350 to 400 vessels while the smallest private commercial facility, Haskell Marine Service, accomodates nine vessels. At the thirty commercial marinas and boatyards, there are 1,195 slips available at an average cost of $30 per linear foot* and 257 moorings available at an average cost of $20 per linear foot*. About one half of these businesses provide repair and winter storage facilities. Only two businesses rent boats at prices ranging from $9.50 to $36 per day. The occupancy rate is 100 percent at virtually all businesses.

Among the twelve private boat clubs, the largest facility, South Norwalk Boat Club accomodates 291 vessels at annual cost of $55. The smallest facility, Ischoda Yacht Club accomodates 20 vessels at an unknown cost. These club facilities are exclusively available to members and are fully occupied each year.

A summary of boating facilities appears in Table 2.

Despite the profits generaged by marinas, boatyards, and boating clubs, many owners are facing economic dilemmas. As operational costs rise and profit margins fall, many owners evaluate other land use options such as offices, apartments, or condominium complexes which generate a substantially larger profit. Eventually, the opportunity costs associated with these other land use options become so great that abandoning the boating facility in favor of another land use becomes an economic necessity. As this alternative development and profitability are realized, commercial boating facilities are permanently lost.

Moreover, stricter environmental laws and standards will probably limit major new commercial marina development. Any boating facilities that are developed will probably be associated with land projects such as hotels, offices, and condominiums and will be available to the general public on a limited basis.

Summary of Norwalk Boating Facilities — Table 2

	Public Commercial					
	Norwalk	Rowayton	Municipal	Public Total	Private Clubs	Summary Total
# slips	895	300	100	1,295	682	1,977
fee	$29/ft*	$31/ft*	$3/ft	$30/ft*	N/A	$30/ft*
# moor.	67	190	-	157	174	331
fee	$18/ft*	$22/ft*	-	$20/ft*	N/A	$20/ft*
Occup.	99%	100%	100%	100%	100%	100%
boat rent.	1	1	-	2	-	2
fee	$32/day	$9.50-$36/day	-	$9.50-$36 day	-	$9.50-$36/day
# avail.	10	15	-	25	-	25
boat repair	10	3	-	13	1	14
boat storage	11	6	-	17	1	18
fee	-	-	-	-	-	-
capac.	1,095	344	-	1,439	160	1,599
launch.	7	3	1	11	3	14
boat build.	2	-	-	2	-	2

*Average cost per linear foot

Like marina and boatyard owners, boat owners are faced with rising costs of pleasure boating opportunities. Boat ownership is a luxury with general expenses including fuel, storage fees, maintenance, slip/mooring rental, and personal property taxes. Harbors are crowded and seasonal traffic is heavy.

As a result of these physical and economic limitations on recreational boating, many boat owners are turning to other boating options. Some are abandoning individual boat ownership in favor of time-shared ownership or chartering opportunities where costs are divided among a group of users or shareholders. Other options include: securing a mooring in the federal channel in lieu of renting from a private marina or boatyard, keeping a boat at home on a trailer and launching it at a public facility when needed, using smaller boats such as sun-fish which can be carried on a car-top, or purchasing a slip from a private marina or boatyard - a condorina (condominium marina).

Despite rising costs, the demand for boating is rising, particularly among the middle income sector, a group which generally uses public boating facilities such as those at Veterans Park or the Saugatuck River in Westport. As this user group expands, additional pressures will be placed on these limited public facilities. Plans to expand public facilities at Veterans Park to include a Harbor Center, Marina Core, additional launching ramps, and slip space for transient vessels will certainly complement existing private facilities. It remains questionnable, however, whether public facility expansion can accomodate growing boating demands.

The large expanse of water in Norwalk Harbor is an untapped boating resource which could potentially accomodate many boat moorings, However, placement and assignment of moorings must be carefully coordinated. The Army Corps of Engineers has proposed that Norwalk develop and adopt a harbor management plan which could provide the framework for a mooring plan as well as guide recreational activities in the harbor. If the new and/or expanded mooring facilities are linked with improved boating facilities at Veterans Park, recreational boating in Norwalk's waters would be accessible to the largest possible user group.

B. Fishing*

Salt water fishing in western Long Island Sound has increased in popularity in recent years. Stimulated by the development of improved fishing tackle, increased amounts of leisure time, improved water quality, and improved economic conditions since World War II, fishing is the second most popular waterbased recreational activity, surpassed only by swimming.

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*A review of Norwalk's commercial fishing appears on pages of this report.

Tied closely to the boating industry, recreational fishing demands clean water to sustain a healthy finfish population and navigable waterways for boat access. Fishing sustains several land based businesses throughout equipment and bait sales, boat rentals, boat and motor sales and repairs, and party boat charters. Development of electronic "fish finders" (depth recorders) may stimulate the support of yet another portion of recreational fishing.

In Norwalk's waters, fish catches include the popular species such as blackfish, fluke, scup, and winter flounder, as well as the coveted species like bluefish, weakfish, and striped bass. Fishermen angle for their catch throughout the year with peak participation from late spring to early autumn.

Despite the popularity of finfishing, fish species must tolerate habitat pressures - the slow cleanup of waters, dredging activities, and the periodic influx of boat effluent and chemical wastes as well as natural pressures of predators, temperature, and limited food supplies. Ironically, these pressures are most severe in the shallow, brakish waters of an estuary - the very place where finfish spawn and nurse. These estuarian breeding grounds must be protected to ensure the future of Norwalk's recreational finfishing activities.

C. Swimming

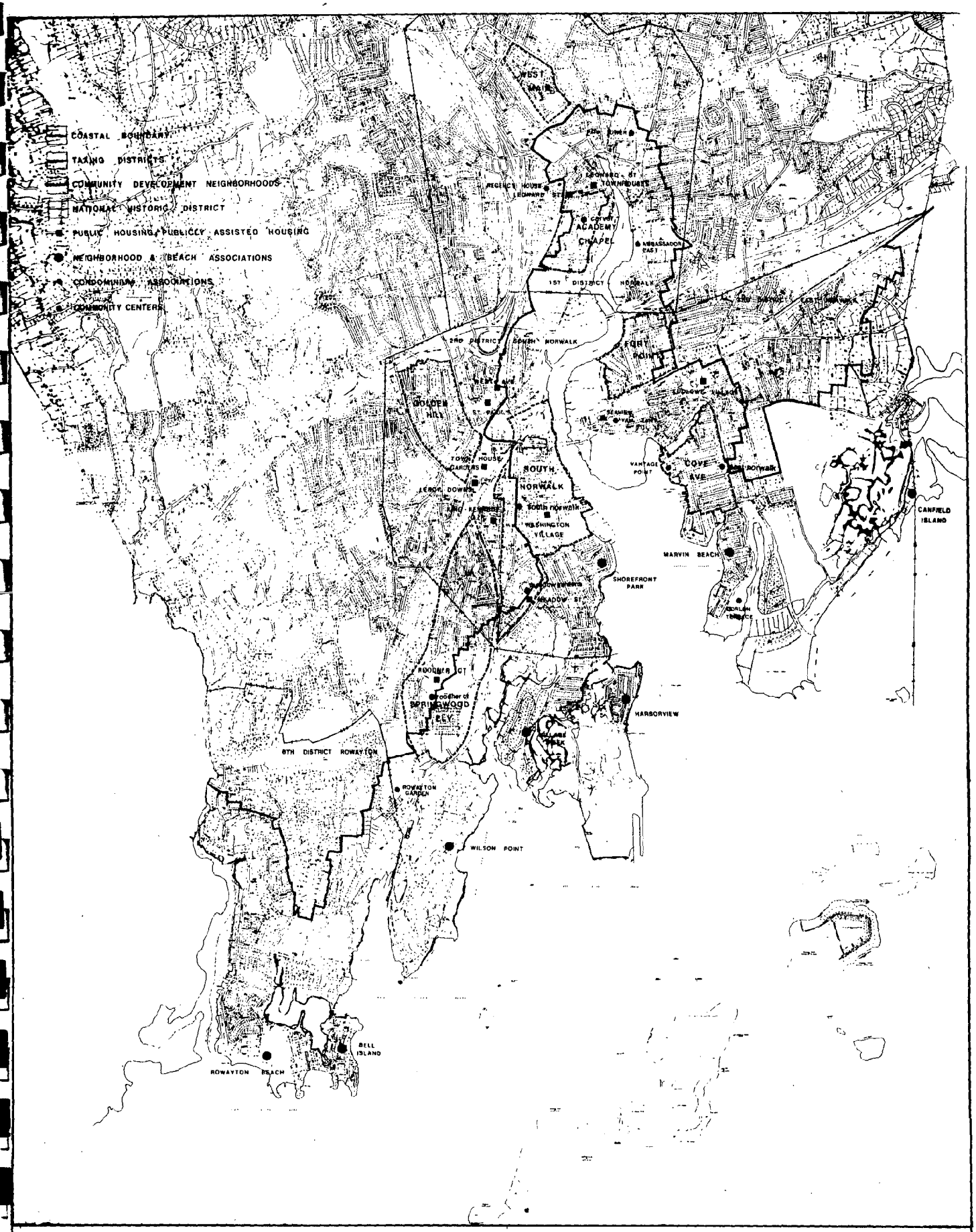
Ranked as the nation's most popular water based activity, swimming is one of the least expensive but most physically stimulating sports. Swimming can be physical exercise or pure enjoyment; participation can be regimented or undisciplined. Swimming is the ultimate water activity since no special equipment is needed.

Swimming in Long Island Sound is a seasonal activity with a use period extending from about Memorial Day to Labor Day. In Norwalk, there are two public beaches designed to accomodate swimmers - Calf Pasture Beach, and Shady Beach. Together these facilities provide a total of 1,120 linear feet of beach frontage, the type of frontage most attractive to swimmers. Although these beaches comprise only 0.9 percent of Norwalk's 22.5 miles of shore, they attract users from throughout the City as well as surrounding communities.

IV. Public Access

With the increased amount of leisure time and advent of clean water, more people are turning to the waterfront for recreation.

The waterfront is an important place attracting crowds of people. The waterfront is unique for here people view man's water activities-fishing, boating, and swimming - or find solitude on an empty beach where waves lap upon the shore. The waterfront is a place for socializing with family and friends, for rediscovering a somewhat faded mariner's tradition, and for escaping from everyday life.



COASTAL MANAGEMENT PROGRAM

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

"Look at the crowds of water-gazers there ... posted like silent sentinels all around the town stand thousands of mortal men fixed in ocean reveries. Some leaning against spiles; some seated upon the pierheads; some looking over the bulwarks of ships from China ... What do they here? But look! Here come more crowds, pacing straight for the water, and seemingly bound for a dive. Strange! Nothing will content them but the extremest limit of the land . . .. They must get just as nigh the water as they possibly can without falling in. And there they stand miles of them, leagues. Inlanders all, they come from lanes and alleys, streets and avenues, north, east, south, and west. Yet here they all unite."

from Moby Dick Herman Melville

However, the waterfront is physically limited. There is just so much. How and where can public access be obtained and maintained?

The shore is public property up to the mean high water mark. Thus much of the public's coastal territory is submerged twice a day. Owners of property adjacent to the public territory are often disturbed by visitors who cross their land on the way to the shore. There are some public land holdings - parks, piers, promenades-but these access points are limited. Public access is subject to serious questions - should non-residents be allowed to use these areas? Should they pay?

Public waterfront access and coastal development are often at odds - needlessly. Public access is not intended to usurp the right to appropriate coastal development. Rather access and development are intended to complement one another. Waterfront development bears the responsibility to help fulfill the need for waterfront recreational opportunities. Private projects can be designed to include public facilities - like a courtyard, walkway, pier, or marina - which provide access to the public's territory. Since no land should be taken without compensation, the developer and public sector must cooperate to protect their territories.

In Norwalk, a significant potential for maintaining access to the public territory and the waterfront is through the Coastal Area Management Act's provision which states that a development project is waterdependent if "the use provides general public access to marine or tidal waters" (PA79-535, sec. 3(16)). Another method for maintaining public access is by protecting the City's four street ends which reach the waterfront providing views ranging from dramatic glimpses to tremendous panoramic views. Perhaps these streets can be best protected if managed and maintained by the neighborhoods on behalf of all people who cherish waterfront access.

SHORELINE APPEARANCE & URBAN DESIGN

The way buildings are placed on the waterfront, their orientation, the extent to which they provide or obscure a water view, the architectural design, and the compatibility with surrounding buildings, open space, circulation patterns, and natural coastal resources, determines the overall shoreline appearance of a developed community. Natural areas and shore types - rocks, islands, marshes, beaches, coves, harbors, and estuaries - are among the desirable coastal features which attract development to the waterfront.

The Long Island Sound Study's publication, Shoreline Appearance and Design, outlines general design principles for waterfront development. Major considerations for coastal development include:

1) setback and height - The height and setback of a structure affects the visual appearance of a coastal area. The influence of setback and height on a coastal area is determined by topography, shoreline configuration, vegetation, and adjacent land use character.

   Low structures (less than 50 feet high) can generally be blended into the landscape. Setbacks of about 100 feet above mean high water usually provide an adequate shoreline edge.

   Moderate (50-80 feet) and tall (+80 feet) structures have a greater impact on the shoreline appearance. In the case of certain waterbased uses such as port facilities and marinas, tall structures may be sited on the waterfront.

   However, especially in non-urban areas, non-water related buildings should be setback about 250 feet from the coastline to minimize visual impact.

   On flat, low, straight shores, on easily visible hills, and on coves and river mouths, setback and height controls must be based on the specific site on shorescape analysis.

2) mass and silhouette: Building mass should be as inconspicuous as possible. In developing large scale facilities, masses should be broken into units wherever possible, integrating the units with the topography. Roof form and silhouette should be varied and styled in accordance with the regional character to blend with the adjacent landscape.

3) building image: (Color/materials/texture). Colors of structures should reflect natural surroundings and local coastal architecture. Materials and texture should reflect natural materials if possible.

4) shoreline cover and plant screenings: Plants should be used to reclaim eroded shores, and screen development. Use species, patterns, massing, and heights compatible with structures to be disguised. Extend shore cover regulations to a depth reflecting vegetative type and coastal resource priority. Require a minimum screen of vegetative buffering: 50 feet for conifers, 100 feet for deciduous species, and 150 to 300 feet in areas of high scenic value. Control thinning in shoreline areas. Preserve natural shrubbery if possible. If removed replace vegetation with other erosion preventing or natural types.

5) earth forms: (foreground) Use berms, mounds to mask unsightly structures.

6) access/approachways: Allign roads, rail lines, parking, storage areas to be parallel and as far from the shore as possible. Provide access to the shore with small feeder roads and footpaths which complement the overall environment. Open scenic views through controlled clearing and thinning.

7) site furniture: develop controls to limit visual intrusions (billboards, utility poles, transmission lines, fences, etc. . . .). Use fencing, trash backets, benches, light fixtures which reflect regional character (historical and architectural).

If incorporated into design controls, these factors could guide shoreline development providing landowners architects developers, builders, and planning officials with standard and effective tools.

In Norwalk several coastal areas reflect many of the design qualities suggested by the Long Island Sound Study:

1) The Washington Street Historic District, listed on the National Register, contains a unique collection of 19th century commercial buildings. The architectural quality of these buildings was analyzed in The Washington Street Urban Study. Recommendations were made regarding signage, cornices, windows, facades, and other details. If implemented, the design guidelines will give unity to this district.

2) Hour Square is an urban square of 18th century brick buildings on Norwalk's central business district waterfront. The square includes the Trolley Barn, Landmark Building, and Stock Exchange building.

3) Norwalk Green/East Avenue is a collection of Revival, Federal and Victorian buildings interspersed with 20th century architecture. Despite this architectural panache of styles, the area retains much of its New England town character. Originally designed as a single family residential area, the Green/East Avenue is the city's professional office district.

4) Bell Island, sometimes compared to Martha's Vineyard, is a unique residential area perched on a rock shore with rows of summer cottages on narrow streets. Most cottages are now year-round residences. Although zoning requires lots of 6,250 square feet minimum and 50 foot front yard setbacks, most Bell Island zones do not conform.

5) Rowayton Avenue is the commercial area of Rowayton, Norwalk's sixth taxing district. The commercial district an area interspersed with boatyards and marinas, once resembled a small New England fishing village. However, this district is now mixed with office buildings and condominiums which alter the character of the area.

6) Cove Avenue neighborhood in East Norwalk is lined with frame houses, neighborhood businesses and small marinas forming a community with a distinct water orientation. The Cove Avenue character is changing as marinas sites are developed into condominiums.

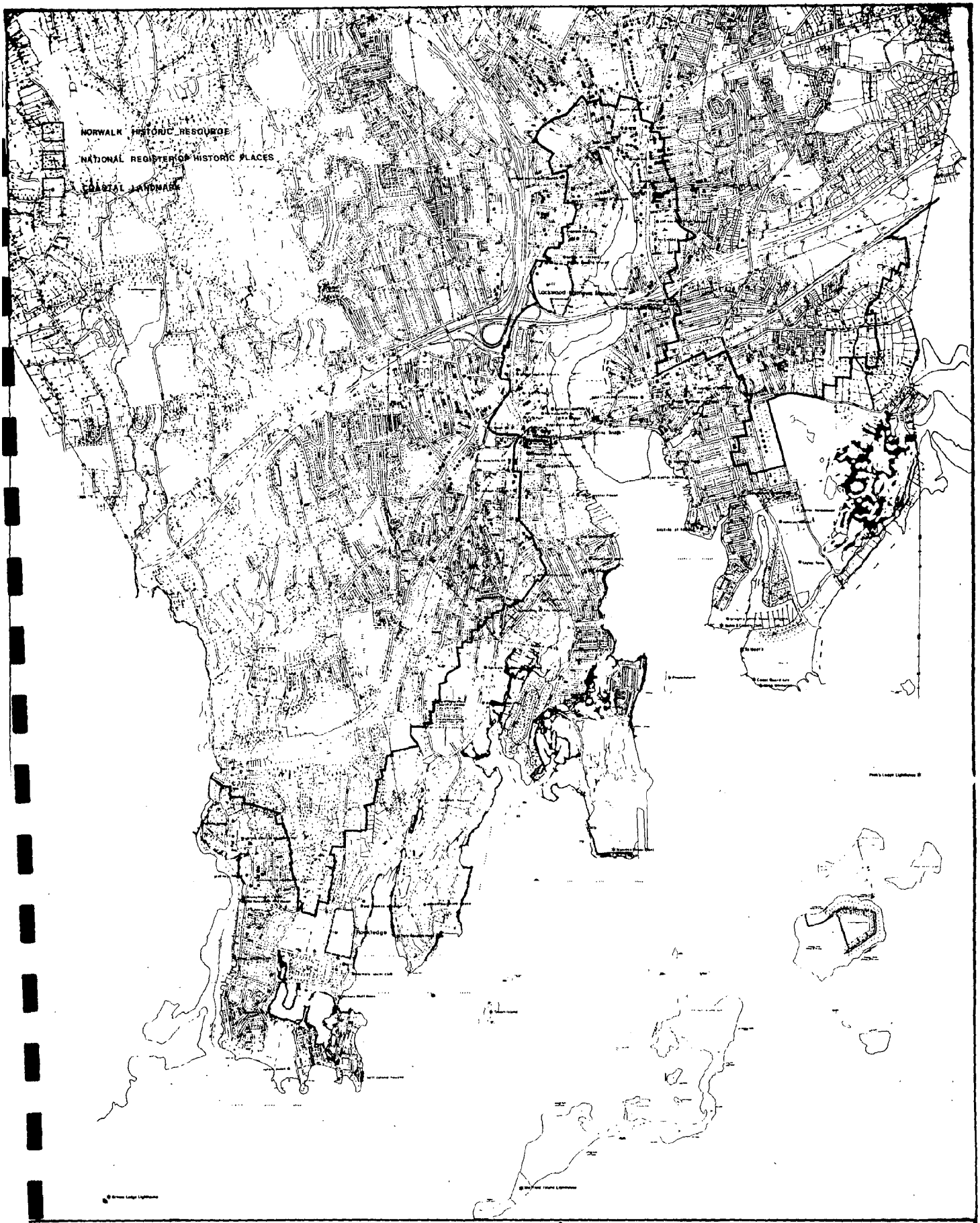
The following issues have been identified:

- How can buildings be designed so they face the waterfront?

- How can architecture and design of private and public facilities be more harmonious with existing buildings, and the natural features of the land?

- How can valuable historic structures be reused or restored rather than demolished?

- What types of subdivision and zoning controls on new housing development will minimize harmful impacts on the coast?



COASTAL MANAGEMENT PROGRAM

HISTORIC RESOURCE MAP

PLANNING & ZONING COMMISSION
NORWALK, CONNECTICUT

FEET 500 0 1000

GOALS AND OBJECTIVES

A. Land Use and Economic Base

Goal 1: Maintain a wide variety of land uses
Goal 2: Improve Storage Areas For Water Borne Commerce
Goal 3: Re-emphasize Commercial Port
Goal 4: Emphasize Waterbased Industries
Goal 5: Support Commercial Fishing

B. Water Quality, Coastal Resources

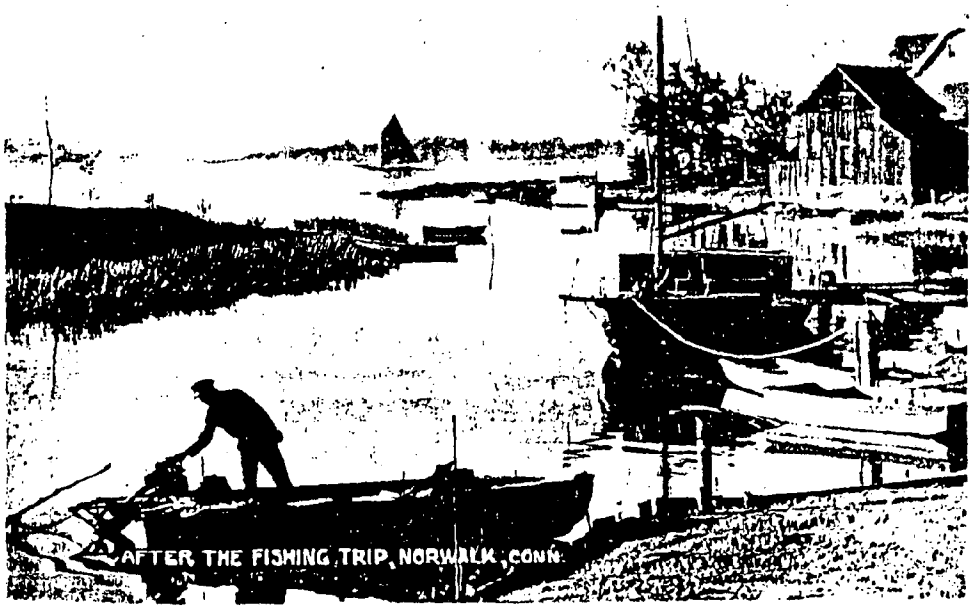
Goal 1: Protect & Upgrade Water Quality
Goal 2: Protect Natural Coastal Resources

C. Parks/Open Space, Waterbased Recreation, Public Access

Goal 1: Develop Management Plan For Waterfront Parks
Goal 2: Manage & Expand Public & Coastal Area Open Space
Goal 3: Secure Establishment of Private Coastal Area Open Space Reserves
Goal 4: Improve Public Access to Norwalk's Coastline
Goal 5: Promote & Manage Waterbased Recreation
Goal 6: Endorse Plans For Maritime Center

D. Shoreline Appearance, Urban Design, Historic Preservation

Goal 1: Protect Unique Visual Resources
Goal 2: Protect Coastal Landmarks



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"Progress has been made as the Rowayton Land Use Group and the property owners have a good relationship. The study group does not want to put anyone out of business. The group is concerned with the preservation of marine uses along the river . . . Rowayton is a popular place to live, it has land and resources which are attractive to developers, and it has a limited area of one square mile . . . As a result of this popularity, Rowayton is subjected to traffic problems, over development and congestion".

Richard Miner, March 30, 1981

"The CAM advisory committee should examine each area - what is the best use, fullest use possible so that marinas can be maintained? Consider dual use-office-apartment combined with marinas".

Lee Hartog, March 30, 1981

We should consider mixing commercial property/use within marina areas. Planning and zoning should not force property owners to maintain marinas until there are public facilities.

Lee Hartog, April 27, 1981

"An oil spill up river would be less disasterous and easier to confine and clean than would be a spill in the outer harbor. Also, if the oil tanks were moved to South Norwalk, there would be more truck traffic on small streets. Costs of shipping bulk materials by water transportation are cheaper."

Maurice Devine, July 21, 1981

"Portland (Me) is a good example of a city transformed by private and public initiative. There are some really significant changes which effect whole areas, bringing in attractive shops and walk-ways."

Ben Detroy, July 28, 1981

A. LAND USE AND THE ECONOMIC BASE

Goal I Maintain a wide variety of land uses on Norwalk's waterfront while preserving natural coastal resources protecting the right of public access, and encouraging appropriate new development.

Objectives

(1) Provide economic incentives to encourage appropriate new development in specific parts of Norwalk's coastal area. Establish "priority development districts" based on existing coastal natural resources and development features. Encourage development where impacts are low. Discourage development where impacts are high.

(2) Develop creative zoning techniques which:

(a) encourage a mixed use complex (offices, restaurants, shops, parks, promenades, and residences) of appropriate scale and promote public waterfront access, security at all hours, and tourism;

(b) establish waterfront zones dedicated primarily to water-based activities (commercial port activity, commercial fishing, marinas/boatyards, recreational boating, public access) that cannot reasonably be located inland. Zones could include marine industrial, marine commercial, and marine residential;

(c) explore the use of transfer of development rights permitting the sale of waterfront development rights to designated "priority development districts". The sale or transfer of development rights could produce two results: (i) reduces development in coastal/waterfront areas best suited for preservation or small scale development and (ii) increased development in those areas which can bear the pressures of large scale development.

(3) Investigate the possibility of land banking whereby the community purchases key land parcels, reselling a portion of the land with specific development restrictions and retaining a portion of the land for a specific community purpose. During the period of removal from the market, when the land is "banked", the value of the land may appreciate allowing the community to retain a portion of the land tract at little or no cost. Proceeds from the resale of the banked land can be used to purchase other key parcels at a later date.

(4) Endorse the rehabilitation and improvement of existing transportation corridors and facilities as the primary means of transportation in the coastal area.

(a) endorse the improvement of Conrail passenger service to Norwalk, a community offering unique water-based recreational and cultural activities (Oyster Festival, In-water Boat Show, Maritime Center, harbor cruises);

(b) improve Norwalk's train station facilities (i) encouraging the development of adjacent mixed-use facilities (restaurants, shops) in South Norwalk and (ii) similar but appropriately scaled facilities in East Norwalk;

(c) coordinate operation of Norwalk's "Wheels" bus system to provide good service to coastal facilities (Calf Pasture Beach, Maritime Center, Washington Street Historic District, Lockwood House, Lockwood-Mathews Mansion) and supplement train service;

(d) examine the traffic circulation and parking situation in the city's commercial areas (Wall Street, Rowayton Avenue, Cove Avenue) to determine how congestion problems can be ameliorated.

(e) encourage expansion of rail freight service to Norwalk to supplement existing water and truck transport systems;

(f) encourage relocation of the Ann Street railyard to an inland site.

(5) Support National and State efforts to control and prohibit air pollution.

(6) Encourage Federal and State agencies to balance the need for adequate and reliable public utility services at the lowest reasonable cost to consumers with the need to protect the environment and ecology of the State and to minimize damage to scenic, historic, and recreational values as provided by the Connecticut General Statutes (CGS 16-50g).

(7) Simplify the building and zoning approval process by eliminating repetitive or unnecessary zoning regulations and reorganizing the numerous existing review and approval processes into a two step process (e.g. preliminary/ conceptual review and final review).

"There is no problem in Norwalk's dredging because it is a commercial experience. Only the environmentalists cause problems. There was a 10 year delay in dredging because of conservationists. Would dredging stop if the commercial port were centralized at Manresa?

Wm. Hopkins, July 21, 1981

"We want dredging to continue. Write it in the charter."

James Gardella, July 21, 1981

"We are looking at the long range effects of port activity and the optimum use of the waterfront. We must look at all the possibilities and incorporate our ideas in the Master Plan to assist Norwalk in the Future."

Roland Clement, July 21, 1981

"Fishermen in Norwalk would love to see a municipal pier. It should be situated so that it does not disturb the rest of the waterfront. Development costs are too high for the fishermen to build the pier themselves and no adequate space is available. Fishermen must pay commercial prices to moor boats. If a fishing pier were established, people could buy fish right off the boat."

Chris Stapelfeldt, July 21, 1981

* * * *

Goal II Improve storage areas for water-borne commercial products.

Objectives

(1) Require that any new commercial storage facilities (petroleum, sand/gravel, asphalt) be established outside the coastal boundary or abut existing coastal storage facilities south of the Norwalk River bridges (Straffolino and railroad). Facilities could be connected to land and water transport vehicles by pipeline.

(2) Alternative A
Encourage the relocation of petroleum, sand/gravel, and asphalt storage facilities south of the Norwalk River Bridges (Straffolino and railroad) to reduces the number of shipments which require opening these bridges.

Alternative B
Encourage the retention of Norwalk's petroleum, sand/gravel, and asphalt storage facilities at their present locations to maintain the commercial waterfront of the harbor and to ensure continued dredging of the Federal channel.

(3) Support the development of improved roadway access to storage areas.

(4) Identify areas within easy access of the main navigation channel to provide centralized offloading south of the bridges or offshore.

(5) Design into the storage program provisions to accomodate new bulk cargos such as coal.

(6) Investigate constructing a regional pipeline for oil transport to supplement existing transport systems (water, truck, rail) which carry fuel to Norwalk.

Goal III Reemphasize the role of Norwalk Harbor as a commercial port in western Long Island Sound.

Objectives

(1) Seek cooperation from the Army Corps of Engineers and other federal agencies to ensure that Norwalk's navigation channels are maintained.

(2) Coordinate commercial port activities with the Harbor Master, State regulatory agencies, and the Army Corps of Engineers. Consider establishing a local Port Authority as provided under Connecticut statutes (CGS, Sec. 7 (29a-329f)).

Goal IV Emphasize the role of Norwalk as a seaport community serving as the operational base for several water-based industries.

Objectives

(1) Encourage tourism along Norwalk's waterfront by ensuring public access to the waterfront, coordinating tours to the historic waterfront sites (Maritime Center, Washington Street) and preserving South Norwalk's seaport heritage.

(2) Coordinate tours of Norwalk's commercial fisheries facilities and the Norwalk Islands to ensure public access to the waterfront and public knowledge of this unique industry.

Goal V Support the stabilization of Norwalk's commercial fisheries industry (mollusks, finfish, lobsters).

Objectives

(1) Assist private industries by seeking development funds to encourage the establishment and expansion of the fisheries industry in Norwalk Harbor and the Five Mile River Harbor.

(2) Provide economic incentives to stimulate expansion of the local employment base and land-based support facilities, securing Norwalk's position as a leading fishing community.

(3) Seek greater Federal and State support for the valuable fisheries resources of Long Island Sound. Encourage the development of aquaculture in Norwalk Harbor including the use of heated waters from Connecticut Light and Power Company's Manresa facility. Encourage the private sector to continue researching and developing new fisheries techniques.

(4) Encourage the expansion of the shellfisheries industry including the reuse of existing historic industry buildings as part of a mixed use complex with public waterfront access.

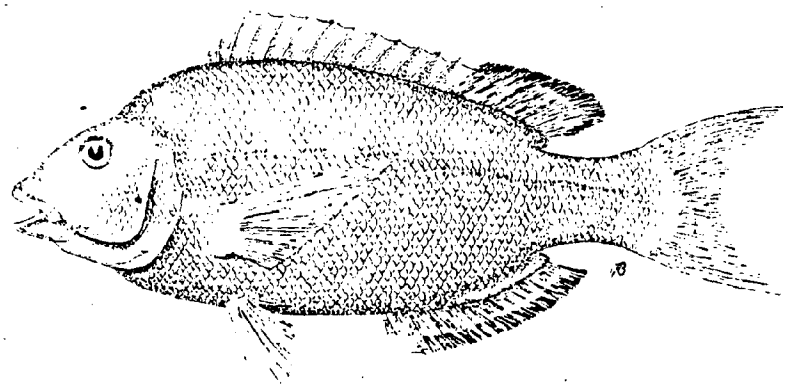
(5) Establish a municipal fishing center for commercial fishing boats which could include a wharf, processing facility, and retail/wholesale markets. Take immediate steps to identify funding sources and areas suitable for development as a commercial fishing center (eg. south of the Norwalk River bridges, accessible to vessels at any tide, subject to the least threat from oil spill hazards.

(6) Coordinate the commercial fleet's use of Norwalk's waters with the Harbor Master, state regulatory agencies, and the Army Corps of Engineers.

(7) Coordinate efforts to stabilize the commercial industry with the Connecticut Commercial Fishermen's Association and private fisheries companies (eg. Tallmadge Brothers).

(8) Explore the recruitment of support industries (eg. processing facilities, offices) to Norwalk to increase the industry's economic base.

(9) Assist the industry in developing adequate land-based support facilities.



Scup

* * * *

Water quality has improved 60 percent in the past decade. The Shellfish Commission has opened additional areas for hand digging and hope to expand the area. Pollution which occurs in the northern reaches of the river is less serious since most industries are cleaning up. There are a variety of waterfront activities which the City hopes to promote.

Tom Brigante, April 27, 1981

"When an area is dredged, it never comes back to life . . . The banks are full of life but the channels that are dredged are dead. Roton Point dock was dredged 50 years ago and is still dead."

Norman Bloom, August 4, 1981

"Why is the problem in the upper harbor? Consider what is coming down the River."

Diane Lauricella, August 4, 1981

"Many companies are involved with the Pollution Abatement Program. Today no one wants to pollute. However, 20 or 30 years ago, there was an improper understanding of how much a river could tolerate. As a result rivers were overloaded-the harbor was developed with tank farms. It is a difficult topic with economic ramifications . . . we must manage our problems with hazardous wastes and solid wastes with a "cradle to the grave" management system.

Dick King, August 4, 1981

* * * *

B. WATER QUALITY AND NATURAL COASTAL RESOURCE PRESERVATION

Goal I Protect and where possible upgrade the quality of Norwalk's water.

Objectives

(1) Establish an annual program to separate combined storm and sanitary sewers in accordance with the Facilities Plan Update for Sewerage System (1979) since Federal and State Clean Water funds are presently unavailable.

(2) Acquire or protect through fee-simple acquisition or conservation easements critical parcels of tidal marsh and near-shore vegetation. Easements should be of sufficient width to ensure that these resource areas function effectively and have adequate planting to slow runoff. Reestablish vegetation where possible.

(3) Mitigate adverse impacts of industrial land uses which are immediately adjacent to tidal wetland and coastal waters by requiring through coastal site plan review the relocation of stored hazardous and toxic substances as far from the coastline as possible, placement of all such substances in containment dikes, and the use of drainage structures to capture and retain such substances before they reach coastal waters.

(4) Monitor water quality at State and local levels to ensure the achievement of "SB" water classification throughout Norwalk's harbor waters. When possible, redefine water quality zones in Norwalk Harbor . . .

-to ensure that habitats for juvenile and adult finfish and shellfish are protected,

-to ensure that existing swimming areas are maintained and that new areas are opened,

-to ensure that existing fishable areas are maintained and that new areas are opened,

-to ensure that the aesthetic and physical quality of existing boating areas are maintained and that areas of poor quality are improved.

(5) Coordinate the monitoring and enforcement of Federal, State, and local water quality laws by the formation of a local Coastal Water Quality Committee made up of representatives from the Norwalk Health Department, Marine Police, Department of Public Works, Conservation Commission, Norwalk Pollution Abatement Committee and others from appropriate State and Federal agencies.

(6) Establish a public education program to disseminate information about the implications of clean water and water pollution control as related to marine and human communities.

(7) Protect and enhance freshwater wetlands and water courses especially the Norwalk River, Five Mile River, Betts Pond Brook, Farm Creek, and Roton Brook which flow into Long Island Sound and thus effect/impact natural coastal resources by requiring minimum setbacks, erosion and sedimentation controls, and vegetative buffering.

(8) Establish an acquifer protection program in accordance with recommendations in SWRPA's Guide to Ground Water & Acquifer Protection-Norwalk (July 1980).

Goal II Protect the natural coastal resources as unique biological areas which serve as habitats for plant and animal life.

Objectives

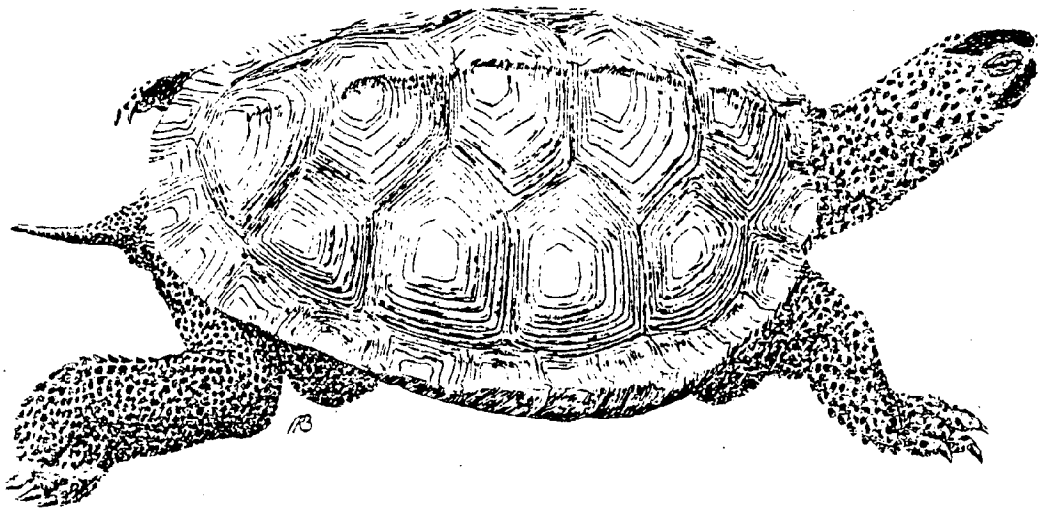
(1) Protect unique natural coastal resources by securing conservation easements or through fee simple acquisition. Easements should be sufficient width to ensure that coastal resources are not impacted by upland development. Resources which should be protected are:

a) tidal wetlands (designated and undesignated)
b) rocky shores
c) cobble beaches
d) mud flats
e) island archipelago

(2) Support the protection of Norwalk's waters and marine habitat as the physical base for the commercial fisheries industries (mollusks, finfish, lobsters) and as a unique environmental and economic base in Long Island Sound through the establishment of municipal ordinances and state statutes.

(3) Establish wetland or conservation areas through zoning or transfer of development rights to protect tidal wetlands or critical islands.

(4) Manage the Norwalk Islands to promote their use as critical habitat for native and migratory bird species for indigenous plant and animal species, and as major recreational/open space areas. Prohibit uses which will have adverse impacts on the island's natural coastal resources.



Diamondback Terrapin

As I have suggested previously, the Islands should be protected by the Federal government like the National Seashore (Cape Cod) and Fire Island. Designation by the government would protect wildlife and birdlife and would make the islands available to visitors . . . The memory of Manresa is still clear. They promised us cheap power and low taxes. Look what we have. There could have been other uses.

Bud Tulin, May 26, 1981

It is the responsibility of the City to buy land:

1) if land is not purchased for open space it disappears

2) land costs increase rapidly placing more pressure on the vacant land which remains

3) alternative plans should be prepared using creative concepts - deeds, easements, creative zoning . . .

Jane Egbert, May 26, 1981

Veterans Park is surrounded by water on three sides, yet has never been dedicated to water-related recreation. Ball parks do not need to be near the water. The park should be for all people to enjoy.

Bud Tulin, April 27, 1981

"There are limits to future capital budget expenditures especially in view of the plan to move into a new city hall, consequently we should not expect any significant additions to the Recreation and Parks Department capital budget for 3-4 years; however, we should move forward towards opening some private beaches".

Larry Church, February 23, 1981

"We must acquire Chimmons and Sheffield Islands"

Robert Johnson, February 23, 1981

"We need to open the shore to public access, educate the people, and preserve the waters surrounding the islands. The Maritime Center will serve as a vital education center to inform the public about the beauty of the Shoreline".

Skip Crane, February 23, 1981

"Street-end parks should be left to the discretion of neighborhood associations".

Robert Burk, February 23, 1981

PARKS/OPEN SPACE, WATERBASED RECREATION, AND PUBLIC ACCESS

Goal I Develop a management plan for Norwalk's coastal area parks.

Objectives

1) Develop a plan linking Calf Pasture Park, Shady Beach, and Taylor Farm, three municipally owned tracts on East Norwalk by:

   a) developing a cohesive pedestrian network linking the three facilities. This network would require the removal of some chain link fencing which currently restricts pedestrial movement between any two tracts.

   b) developing a bike path stretching from Veterans Park to Calf Pasture Park. Linkage with the Norwalk River Linear Park/Bikeway would permit bicycle travel from the East Norwalk shore to the central business district, inviting more users to the city's coastal parks.

   c) developing a vehicular parking plan to eliminate abuse of Shady Beach and Taylor Farm. Parking areas should be limited within Shady Beach. A stretch of parking could be developed on Canfield Avenue.

   d) encouraging the use of mass transit by providing year round service to these East Norwalk city parks.

   e) develop a range of year round activities at Shady Beach and Calf Pasture Park to encourage year round use of these facilities.

   f) develop a boat rental franchise and sailing school at Calf Pasture Park or Shady Beach.

2) Endorse the Veterans Park Master Plan as the guide to the park's future development. The plan is particularly commendable as it provides a waterfront promenade/passive recreation area, protect fragile coastal resources, and provides ample water-based recreation opportunities (boating and fishing).

3) Improve city street ends as physical and visual access points to the waterfront. Street end facilities should be designed to attract neighborhood or district use (with pedestrian or bicycle access) rather than city wide use (with motor vehicle use). Street end areas could be granted or responsibilities vested with interested neighborhood groups. These groups could create, manage, and maintain neighborhood park areas as has been done by the Marvin Beach Association in East Norwalk.

4) Explore creative techniques which encourage public/private management of municipal parks.

   a) secure franchises to provide/operate boat rental sailing school, and restaurants at Calf Pasture Park, Veterans Park, and the Landfill

   b) establish a public/private cooperative venture to operate the proposed Harbor Center at Veterans Park.

5) Secure right of first refusal to purchase key waterfront clubs if they become available. These clubs could be developed as parks with specific management and use criteria so that impacts on surrounding coastal resources and neighborhoods are minimal. Clubs to be considered include: Roton Point Club, Wee Burn Country Club, Shore and Country Club, and Ascension Beach Club.

6) Improve existing municipally owned and managed district and neighborhood parks

   a) Irving C. Freese Park - reorient toward the water

   b) Mill Pond - provide walkways, benches, and appropriate planting

   c) Woodward Avenue Park - reorient toward Village Creek wetland

7) Reserve the Landfill's shoreline area as a city waterfront park. Require a vegetative buffer between the park area and the turnpike.

8) Endorse the use of the Mathews Park Master Plan to guide development.

3) Endorse the use of the Norwalk River Linear Park/ Bikeway Plan to guide development along the river's east bank.

Goal II Manage and expand the public's coastal area open space reserve.

Objectives

1) Develop an open space land acquisition plan identifying coastal areas for inclusion in Norwalk's reserve system. The plan should:

   a) identify and prioritize areas for potential land acquisition

   b) establish a revolving land acquisition fund using the Cranbury Park and I-95 bond funds for the purchase of priority parcels as available

   c) establish linear green belts along the Norwalk and Five Mile Rivers

   Areas which might be included in the plan are:

   a) Rowayton - Roton Point Beach Club, Hart Property, Five Mile River wetlands.

   b) South Norwalk - Manresa/Harborview wetlands, Shorefront Park wetlands, Reed-Putnam wetlands, Wilson Cove wetlands, Village Creek wetlands, Wilson Avenue peninsula

   c) East Norwalk - Marvin Creek wetlands, Canfield/ Shorehaven wetlands, Canfield Avenue peninsula

   d) Norwalk Islands - Chimons, Sheffield, and other islands as appropriate

2) Develop a management plan for Taylor Farm, Norwalk's largest coastal open space reserve. The plan should:

   a) link Taylor Farm to adjacent coastal area parks (Calf Pasture Park, Shady Beach) with a coherent pedestrian network;

b) establish a parcourse to attract more users to the site while concentrating use impacts

c) establish an internal trail system to attract more users to the site while concentrating use impacts

d) permit the area of Taylor Farm near Spruce Swamp to revert to a meadow which could serve as a suitable wildlife breeding habitat. The meadow could be maintained by annual mowing.

3) Develop a management plan for municipally owned islands (Shea, Grassy, The Plains, Little Ram).

4) Secure right of first refusal to purchase tidal wetlands and critical island areas as they become available.

oal III Secure the establishment of private coastal area open space reserves

bjectives

1) Secure conservation easements and dedication of land and tidal areas to the Norwalk Land Trust, Nature Conservancy-Connecticut Chapter, or other private land conservation trusts to protect Norwalk's unique coastal resources. These land and tidal areas should be of sufficient width to ensure that coastal resources are not impacted by adjacent shoreline development and provide limited public access.

The following areas are recommended for such reserves:

a) tidal wetlands (designated and undesignated)
designated - Farm Creek, Wilson Cove, Village Creek, Manresa/Harborview, Charles Cove, Shorehaven/Canfield Island

undesignated - Five Mile River, Shorefront Park, Reed-Putnam, Singer Property, Charles Creek, Veterans Park, Marvin Creek

b) rocky shore - Bell Island, Norwalk Islands, Wilson Cove (west)

c) cobble beach Shea Island, East Norwalk south of Cove Avenue

d) mud flat Veterans Park, Shorefront Park, Five Mile River, Marvin Creek, Canfield Island, Village Creek

e) island archipelago - 18 Norwalk Islands

2) Establish wetland conservation areas through zoning or transfer of development rights to protect tidal wetlands (designated and undesignated) and critical island areas

3) Use the tax assessment concept of Public Act 490 (An Act Concerning the Taxation and Preservation of Farm, Forest, and Open Space Land to give tax incentives to private property owners to maintain and protect coastal area lands a) of natural, scenic, and historic value, b) enhance preserves, or c) promote orderly urban or suburban development. These open space areas are crucial in developed communities as they provide the opportunity for leisure and recreation in natural settings, a relief from the man-made environment.

GOAL IV Improve public access to Norwalk's coastline

Objectives

1) Support the appropriation of public and private funds to establish walkways, roadways, and promenades immediately adjacent to the waterfront especially in areas of mixed use development in areas along upper harbor, South Norwalk waterfront, and Five Mile River Harbor.

2) Secure public access easements to increase opportunities to reach Norwalk's coastline. Easements should be obtained:

   a) along the west bank of the Norwalk River to create the Norwalk River Linear Park/Bikeway

   b) along the west bank of the Norwalk River to create a linear walk south of Wall Street to Shorefront Park

   c) along the Five Mile River to create a linear extension from Pinkney Park to Rowayton Community Beach

   d) along the perimeter of designated and undesignated tidal wetlands

3) Secure right of first refusal to purchase any privately owned tidal wetlands (designated or undesignated)

4) Seek cooperation with Connecticut Light and Power Company in managing organizing study groups which visit the Manresa Island tidal wetland.

5) Secure dedications of waterfront parcels as a reasonable condition of development at appropriate locations.

6) Develop a municipal land acquisition plan to:

   a) identify and prioritize coastal areas for potential acquisition (based on physical and visual access)

   b) organize a park acquisition fund so that purchases can be rapidly completed when land parcels become available

   Key coastal tracts which provide access to the waterfront include:

   a) Hart Property - a 10 acre designated tidal wetland/ upland area on Farm Creek; adjacent to Kulze Preserve and Landgon Property; largest undeveloped tidal wetland in Rowayton

   b) Roton Point Club - a private club located on the waterfront; largest privately owned open/beach parcel in Norwalk; club said to be in financial trouble; if developed zoning permits construction of 100 condominiums; acquire to create a city park

   c) Norwalk Islands - minimally developed island archipelago with unique coastal resources and critical wildlife habitats; acquire Chimons Island (heron rookery) and Sheffield Island (historic lighthouse); determine which if any other islands should be acquired

   d) tidal wetlands - (designated and undesignated) acquire parcels as available

   e) Wilson Avenue Peninsula - acquisition of peninsula and wetland in Village Creek

   f) Canfield Island Peninsula - acquisition of peninsula and tidal wetland adjacent to Canfield Island Creek

7) Establish linear walks, beltways, and greenbelts along the Norwalk and Five Mile Rivers. Endorse the Norwalk River Bike Plan and the Veterans Park Master Plan.

"We need more ability to enforce the law, someone with teeth. To have an effective harbor management plan requires support, authority . . . We should also provide special moorings or do dockage facilities for transient vessels."

John Deware, August 4, 1981

"We could fill Cove Marina three times over. As for the South Anchorage Basin, it is not desireable since it is so far from land and exposed to south winds which produce some really rough weather. The most important thing is to keep the harbor dredged. Once an area is dredged it is clean."

James Gardella, August 4, 1981

It is the responsibility of the Harbor Master to oversee the safe and efficient use of the harbor and to enforce all boating regulations. In Norwalk Harbor, there are long strings of moorings, many illegally lying in the federal channel. With a Harbor Management Plan we might establish a thoroughfare and expand the anchorage basin . . . There is good public access at Veterans Park where permits are issued to residents at no charge and to non-residents on a fee basis ... There are deeded public rights-of-way which extend into the harbor basin-at the foot of Second, Third, and Fourth Streets although the last of these is clocked by a concrete abatement.

Don Relyea, April 27, 1981

"A Harbor Management Plan, such as the one developed for Stonington, Maine and Newport, Rhode Island, if developed in the public interest could help determine what should be allowed. Among the criteria for such a plan:

1) Since general revenues are used to maintain navigable waters these waters must be accessible to all

2) Free, unimpeded navigation along channels and waterfront facilities must be provided to accomodate commerce

3) Mooring space must be open to all on equal terms

4) Facilities for transient boats should be provided to accomodate visiting boats.

The community must establish a system of priorities which consider local needs and benefits . . . The plan must be well reasoned and avoid the bank-to-bank mooring plan now practiced on the Five Mile River".

Richard Roach,
U.S. Army Corps of Engineers,
April 27, 1981

Goal V Promote and manage waterbased recreation activities while minimizing impacts on the coastal environment

Objectives

1) Expand the municipal marina at Veterans Park making moderately priced boating opportunities available in accordance with the Veterans Park Master Plan. Such a facility should not be designed to compete with existing marinas and boatyards but rather to complement these private operations. The municipal marina's design should be based upon existing facilities (launching ramps, slips, parking) with ammenities such as additional slips, launching ramps, a Harbor Center, and a marina core as proposed in the Veterans Park Master Plan. Slip assignments should be made on a lottery basis so that all interested users have an equal chance of obtaining space. User fees should be adequate to maintain the municipal facility and contribute to Harbor Master funding. Also apply for an annual allotment of moorings from the Harbor Master to be operated and maintained by the Veterans Park Marina.

2) Establish additional locations for public boating facilities (boat rental/launching) at Calf Pasture Beach, Veterans Park, Manresa Island, and at appropriate city street ends.

3) Establish a public dock for transient and commercial slips at Veterans Park in accordance with the Veterans Park Master Plan.

4) Seek cooperation from the Army Corps of Engineers and other federal agencies to ensure that Norwalk's existing federal navigation channels are maintained.

5) Coordinate recreational boating activities by preparing a Harbor Management Plan for Norwalk Harbor and the Five Mile River Harbor. These plans should designate permanent and transient mooring basins, specify tackle requirements and rental and use procedures, establish strict operational regulations (speed, water skiing, fishing, waste disposal), and require licensing of water scooters, hydroplants, and other similar vehicles. The plans should be enforced by the Harbor Masters aided by Norwalk's marine police division. Management of the Five Mile River Harbor must be coordinated by the Five Mile River Commission and the town of Darien.

6) Establish a permanent, fulltime Harbor Master position for Norwalk Harbor. The Harbor Master will be charged with the responsibility of enforcing the Harbor Management Plan, coordinating port activities with state regulatory agencies and the Army Corps of Engineers, working with the proposed local Port Authority, and minimizing conflicts between recreational and commercial boating users. The position could be funded with revenue from the municipal marina.

7) Measure intensity of boating use throughout the harbor. Restrict growth of recreational boating in already congested areas. Promote fulfilling the recreational boating potential of underutilized areas.

8) Encourage the development of new commercial marinas and boatyards and private wharfs (for the use of the owner) in areas less sensitive to boating impacts.

9) Establish a recreational boating education program to instruct users in the appropriate use of motor and sail boats, good maintenance practices navigation, and laws of the city's Harbor Management Plan (e.g. power squadron courses at Calf Pasture Beach).

10) Require annual inspections of boats for safe and efficient engine and equipment operations (gas and oil leaks, high exhaust levels).

11) Establish activity zones where environmental impacts are low. Establish strict regulations regarding speed, activities, and size of wakes near sensitive or critical coastal areas. Regulations should address activities including powerboating, duck hunting water skiing, and windsurfing so that these and other water activities can be conducted safely. They should be developed in cooperation with state and federal regulatory agencies.

Goal VI Endorse plans for the Norwalk Maritime Center to be housed in the Norwalk Fabricators building in South Norwalk as a major educational, scientific, and recreational facility.

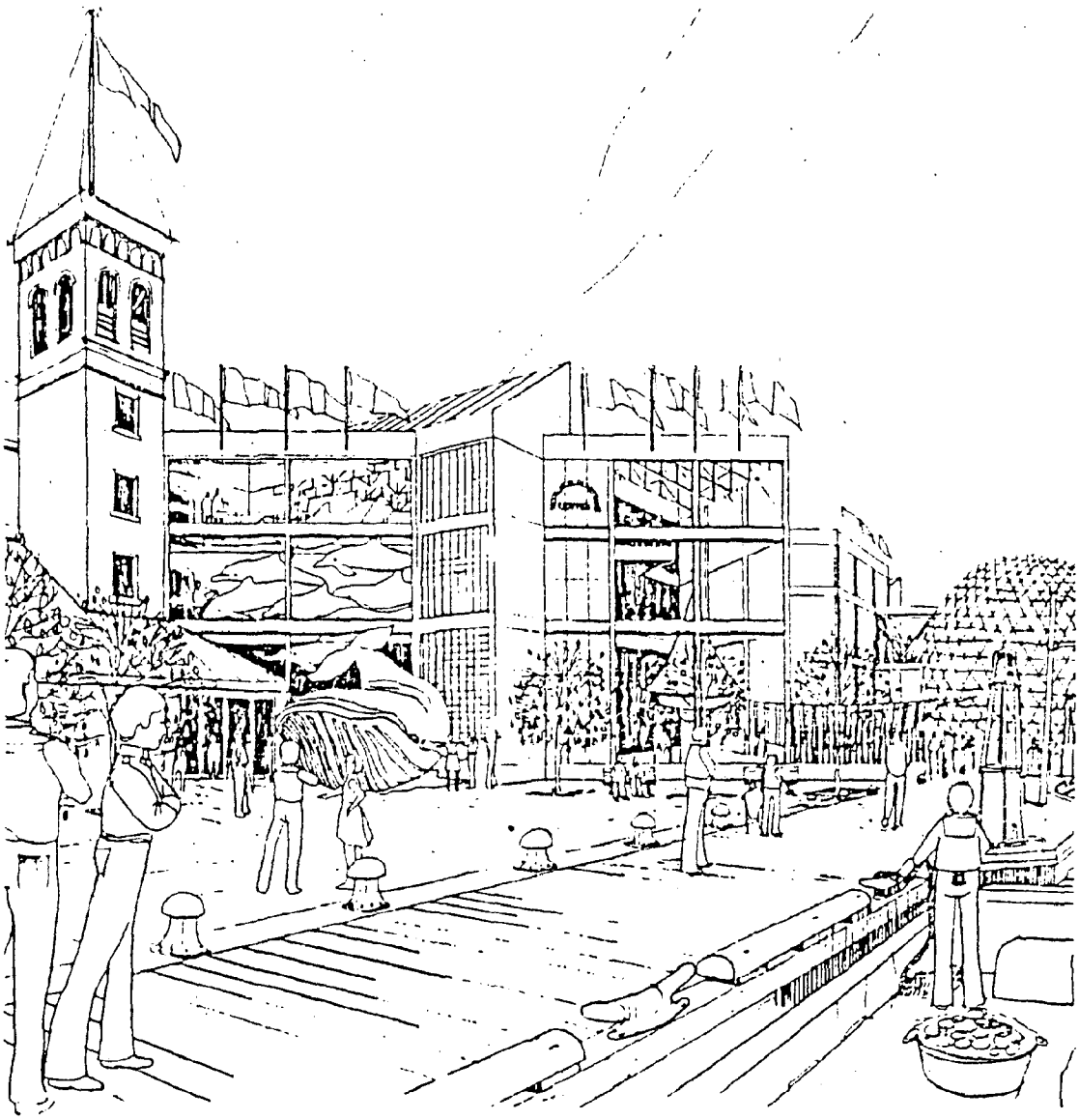
Objectives

1) Support the appropriation of public and private funds to develop adequate support facilities including esplanades, greenbelts, marinas, and fishing piers adjacent to the ~~Maritime Center~~ and at Veterans Park.

2) Develop contingency plan for the Maritime Center should the original goal of a major institution not be realized

3) Restudy location of Maritime Center Parking Garage on the waterfront with preference being given to an upland site

4) Enlarge the concept of a Maritime Center to the entire waterfront by encouraging visitors to the Center to see and experience the diversity of Norwalk's working waterfront including the Oyster Industry, the marinas, the port, tidal marshes, and the Islands.

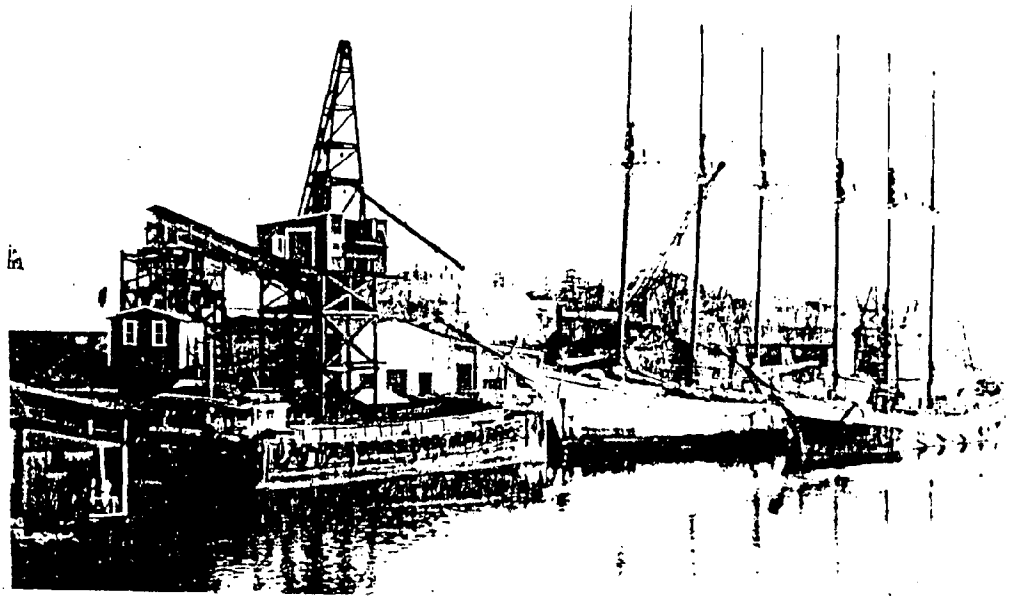


Norwalk Maritime Center

* * * *

The Planning and Zoning Commission and Redevelopment Agency must look toward reusing waterfront property. Why do we tear old buildings down? We go to Europe to see old buildings. In Europe engineers design roads to go around buildings. However, here we tear them down. Americans have a mentality which states "new is better". New is not better. It is time to consider adoptive reuse - a bank in an old Victorian home, a doctor's office 19th century Revival building, and apartments in a piano factory. The Norwalk Redevelopment Agency has prepared publications - tools for Historic Preservation, How to Preserve, and Revitalization of South Norwalk.

Valle Fay, May 26, 1981



Maine Lumber Schooners

* * * *

. SHORELINE APPEARANCE, URBAN DESIGN, AND HISTORIC PRESERVATION

Goal I Protect unique visual resources of the coastal area with effective design criteria.

Objectives

1) Establish general coastal design guidelines using the Long Island Sound Study's design criteria to supplement Norwalk's coastal site plan review process. More specific guidelines such as those established for the South Norwalk Historic Design (Washington Street Urban Design Study should be established for areas with unique design qualities (e.g. Hour Square, Bell Island, Rowayton Avenue). Guidelines should address: Building setback, height, mass, silhouette, and image; shoreline covering and plantings; earth forms; access and approachways; signs and site furniture as related to specific site analysis. Planning and Zoning staff should coordinate use of the guidelines with the project owner, architect, developer, and/or builder before review by the Commission to ensure the best possible design on a specific site.

2) Use open space preservation tools to enhance and maintain Norwalk's shoreline appearance (see Parks/Open Space, Waterbased Recreation, and Public Access).

3) Establish waterfront zones dedicated primarily to water-based activities that cannot be reasonably located inland. Each zone type should have specific design criteria based on shoreline features, topography, and existing land uses.

4) Incorporate the design review criteria of the Washington Street Design Study, Norwalk Historic Preservation Plan, and South Norwalk Revitalization Plan into coastal site plan review.

5) Secure scenic and visual easements to the water's edge using existing streets and undeveloped view corridors throughout Norwalk's coastal area.

6) Establish coastal areas with distinct and valuable views by

   a) zoning waterfront height regulations which permit high rise development only in predetermined areas but which generally reduce or step down maximum height allowances closer to the waterfront

b) require minimum building setbacks on the water's edge but exempt water dependent uses (marinas, boatyards, commercial port facilities, commercial fishing facilities). Base regulations on the Long Island Sound Study's design criteria and individual site character.

7) Establish standards to visually buffer and improve industrial and commercial storage areas (petroleum, asphalt, sand/gravel, fisheries) transportation links, and utilities located on the waterfront. Standards should require appropriate landscaping, painting, upkeep, and design in accordance with standards in the Long Island Sound Study. Provide economic incentives to encourage maintenance of visually attractive facilities.

8) Improve city street ends as important public visual access points. Improvements could include development of small parks, launching ramps for small boats, and fishing piers.

9) Encourage the preservation and creation of special places on the waterfront with strong visual interest (eg. Tallmadge Brothers Oyster House, Sheffield Island Lighthouse, Maritime Center, and improvements at Veterans Park).

10) Use the Long Island Sound Study's guidelines in conjunction with coastal site plan review to orient development toward the waterfront in the coastal area.

11) Encourage development of appropriate scale of Landfill, Reed-Putnam, Railyards Site subject to design review and with minimal impacts on coastal resources.

Goal II Protect coastal area landmarks which are of historical, architectural, archeological, or paleontological importance.

Objectives

1) Establish a process for identifying coastal zone structures which are historical landmarks as part of the coastal site plan review process. The process should consider the importance of historical sites, structures of architectural significance, industrial sites, and archeological sites. Norwalk's Historic Resources Inventory and Historic Preservation Plan should be used as guidelines.

2) Update the Historic Resources Inventory to include all coastal zone landmarks of historical, archeological, or architectural significance.

3) Develop a municipal information program to relate historic preservation and coastal area management programs. Owners of historic structures should be educated on the subject of historic preservation, adaptive reuse, funding options, and tax abatement programs. It is better to discuss historic preservation and/or adaptive reuse with an owner before an application for changing these structures is filed with Planning and Zoning. The program might include general information and technical assistance workshops.

4) Develop protective ordinances to preserve the architectural historical character, and aesthetic quality of buildings and districts in the coastal area. Ordinances should include sign ordinances, design criteria, and visual appearance standards (landscaping, painting, maintenance, turfing, etc. . . .) in accordance with the criteria of the Long Island Sound Study.

5) Establish historic districts under Connecticut General Statutes (CGS sec. 7-147a) to protect and preserve these unique areas. Districts and buildings which should be designated include: Taylor Farm, Hour Square, Bell Island, Haviland-Elizabeth Streets area, Butler Street area, Ice-House Factory, and R&G Corset Factory.

6) Study the potential of economic incentives to encourage preservation and adaptive reuse of Norwalk's coastal area landmarks.

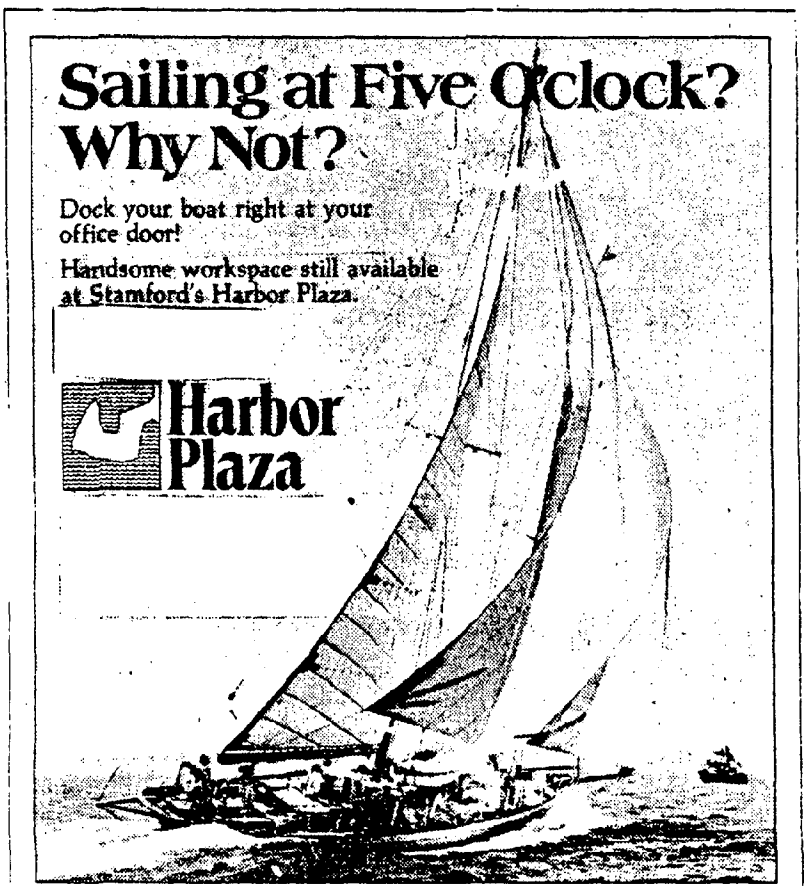
7) Investigate ways to preserve many of Norwalk's coastal buildings which reflect the community's water-based industry and history, remnants of the past which should not be lost. Buildings include Radel Oyster House and Incerto House.

8) Investigate the possibility of securing facade easements to protect Norwalk's coastal landmarks and provide some tax advantages.

9) Revise demolition permit procedures to require public hearings and review by Planning and Zoning Commission before any building in the Norwalk Historic Resource Inventory is demolished.

IV. OPPORTUNITY AREAS/DEVELOPMENT SCENARIOS

A. Rowayton Avenue
B. Roton Point
C. Wilson Cove
D. Village Creek
E. Manresa Island
F. Water Street
G. Landfill-Washington Street-Railyards
H. Upper Harbor
I. Cove Avenue
J. Canfield/Shorehaven/Cove Marina
K. Norwalk Islands



IV. Opportunity Areas - Development Scenarios

The coastline of Norwalk has been divided into eleven opportunity areas- those areas which may undergo rapid change and for which clear development policy is needed. They provide a vehicle for further refinement of the goals and objectives presented in the previous section. They also, and most importantly, provide the basis for decision-making.

The opportunity areas need to be understood in terms of the existing situation: coastal resources, coastal land uses; and in terms of their potential for future development.

Current zoning often does not protect land uses. For example current zoning allows:

- All of the remaining parcels of land on Rowayton Avenue to be developed as office buildings and condominiums, displacing all of the remaining boatyards and marinas

- Roton Point Club in Rowayton to be developed with over 100 units of multi-family residential units

- Replacement of the Wilson Cove Yacht Club with single family houses on 12,500 sq. ft. lots if the club were ever destroyed by fire or natural disaster or abandoned

- Massive development of 8-story office buildings along Water Street from Burritt Avenue to Washington Street displacing the numerous boat clubs, marinas, boatyards, oyster industry, and port facilities

- Similar massive office development on the upper harbor (see above)

- Development of office, commercial and multi-family residential development or Cove Avenue

- Development of large scale hotel, office, or condominiums at Cove Marina and the Ascention Beach Club.

- Development of all of the Canfield Island tidal wetland for single family residential development, and

- Development of all of the Village Creek tidal wetland for heavy industrial use.

Development potential is often quite different than current land use as these examples clearly illustrate. Therefore, one scenario which will be presented for each area is the maximum development allowed by current zoning. While such examples may seem far fetched they, in fact represent the current development policy of the City of Norwalk and the basis on which such land is valued. They represent an anticipated "development right" which landowners claim as part of their investment in the land.

The second and, in some cases, third scenarios illustrate development options under different zoning concepts or, in some cases with public aquisition or transfer of development rights.

By illustrating alternatives for development in each of the opportunity areas we hope to provide a basis for decision-making at the local level;the framework of each decision can be evaluated in terms of its scale, density, impact, and level of public improvement.

Three opportunity areas: Roton Point, the Upper Harbor, and Cove Avenue have been studied in detail. Illustrative site plans have been prepared showing how development might occur under three different zoning/land use alternatives.

At each step in the process of approving this plan the development scenarios will be used as the basis for decision making and will determine the ultimate plan.

The development alternatives are a more detailed reflection of the goals and objectives of the State of Connecticut's Coastal Area Management Act and the goals and objectives for Norwalk's Coastal Program in the preceeding section.

The following sections describe the eleven coastal opportunity areas and the development scenarios.

A. Rowayton Avenue (Goals & Objectives: A1,A4,B2,B4,B5,D1,D2

The signs of rapid land use change are already readily apparent in the Business Number 3 Zone of Rowayton Avenue. Office buildings and multi-family residential developments have replaced traditional water dependent land uses leading to the elimination of four boatyards and the transfer of slips and moorings from commercial boatyards to private ownership.

The alternative matrix shows three options for the Rowayton Avenue Business District:

1) Business Number 3 Zone
2) Marine Commercial Zone
3) Design District Zone

Alternative No. 1 Business No. 3 Zone

The assumption of the Business No. 3 zone scenario is that development would proceed up to the full limit allowed by zoning and each landowner maximizing his/her profit. This would lead overtime to the total elimination of all remaining boatyards. Slips and moorings would become much more exclusive in use and availability. Traffic and parking impacts would reach saturation and beyond. Environmental impacts could be severe. Future dredging of the harbor would be jeopardized because of the lack of a commercial port, commercial fishing, or public boating facility.

The provisions of the zone which were enacted in 1980, would however insure the preservation of water views by mandating an aggregate side yard of 40% of the lot width. Parking requirements would continue to require most if not all of the land devoted to parking lots, leaving little area for landscaping or waterfront amenities.

Alternative No. 2 Marine Commercial Zone

The marine commercial alternative would establish a firm policy towards protecting the remaining existing boatyards and commercial fishing establishments. Permitted uses would be limited to marinas, boatyards, commercial fishing, sail lofts, boatbuilding and repair, and related commercial uses. It would make the existing neighborhood commercial, office and residential uses non-conforming; i.e. they could remain, but would not be allowed to expand.

The major disadvantage to this zone is the extent to which existing development rights would be curtailed. Modifications of the marine commercial zone, however, might allow transfer of development rights to upland parcels. It might also be modified to allow office and residential uses, but only by special permit.

Alternative No. 3 Design District Zone

A Design District alternative would create a flexible zoning district on the waterfront under which a wide variety of land uses would be permitted, but all of which would be subject to specific design controls including waterfront setbacks, require public access to the waterfront, waterfront visual easements, sign controls, architectural review, and other standards for landscaping and site amenities. The result of this zone might not be much different than Business No. 3 Zone - the eventual elimination of all water dependent uses. However, by allowing more flexibility in mixed land use on single parcels it might be possible for individual boatyards to conduct year round activities which would generate sufficient income to compete with other land uses. The ideas of Lee Hartog regarding transfer of development rights and transfer of off-street parking to community parking lots east of Rowayton Avenue could be incor-

Rowayton Ave. Alternatives For Development	Type of Use Permitted	Scale	Impact of Development: Beneficial	Impact of Development: Adverse	Public Improvements
Alternative #1 Business #3 (existing zoning) Purpose: to encourage a wide variety of business uses	•Commercial • Office •Residential	• 2 stories-30 ft. •35% coverage- •26 units/acre: Family •35 units/acre: elderly	-increased office construction would create jobs, taxes -increased residential construction would add to supply of housing -waterfront properties have high redevelopment potential.	-could lead to elimination of water dependent land uses -would increase traffic impact -could weaken case for U.S. Army Corps dredging of harbor.	-Improvement of Rowayton Ave. -elimination of curb cuts, improve signage, plant street trees, new sidewalks -Creation of centralized parking lots under private or municipal control -Public access points to waterfront -Dredging of the harbor
Alternative #2 Marine Commercial Purpose: To encourage only marine related uses on the waterfront	•Boatyards •Marinas •Associated commercial water dependent land uses	• 2 stories-30 ft. •35% coverage - •ag. side yard=40% minimum	-would help assure that future uses on the waterfront are water dependent -positive commitment to boating and fishing on Five Mile River -would be strong argument to continue Army Corps dredging of harbor.	-would remove development value of waterfront land -could lead to further destruction of coastal resources.	(see above)
Alternative 3 Design District Purpose: To encourage a mixture of land uses on the waterfront with a consistent set of design standards	-All uses permitted -Minimum design controls: •landscaping •public access required along waterfront and to waterfront from street except if water dependent use •signs, colors, materials, architecture subject to review •"shoreline appearance & design" Long Island sound study standards to apply •Buffering surrounding properties when uses are incompatible	-All uses: •step back' height controls or view preservation requirements •maximum height •bulk •floor area ratio: •minimum waterfront setback except for water dependent uses •transfer of development rights possible	-Does not reduce development rights except to enhance and protect views of water -Allows mixed land use -Would create, over time, a design unity	-No clear direction for future land use -could lead to a concentration of office and residential development and the elimination of most water dependent land uses. -would weaken case for Army Corps dredging	

B. Roton Point (Goals & Objectives: A1,B2,C2,C4,C5,D1,D2)

Roton Point is the site of the former Roton Point amusement park, a large regional waterfront commercial enterprise similar to Rye Playland in Westchester County. The site is now occupied by the Roton Point Club, Bayley Beach (6th District Park), and the Weeburn Country Club. Roton Point is zoned "B Residence" which permits single family housing at a density of one dwelling unit per 6,250 square feet of lot area or approximately 7 units per acre. In the B Residence Zone, Planned Residential Developments are also permitted at a density of one dwelling unit per 5,000 square feet of lot area or approximately 9 units to the acre. While the Weeburn Club Bayley Beach are not likely to change, the Roton Point Club is likely to change and the following alternatives reflect three scenarios for that 13 acre waterfront site.

- Alternative 1: B Residence Zone

  Under the "B Residence Zone" Alternative it has been assumed that at some future date the landowners of the Roton Point Club would exercise their right to develop to the maximum permitted under existing zoning. This would result in 120 units on 13 acres in a Planned Residential Development, probably under condominium ownership. The club building and boathouse could be integrated into the development and used as year round recreational buildings. The beach and boating facilities would probably be reserved for the exclusive use of the condominium owners, but a public walkway and fishing pier could be incorporated into the site plan.

- Alternative 2: Public Park

  This alternative describes the scenario under which the City would purchase the Roton Point Club and working cooperatively with the Sixth Taxing District retain the area as a waterfront park and recreation area. Parking for 250 cars would limit usage to that number and summer controlled entry could be regulated through the use of stickers or gate attendants. The estimated purchase price of over $2 million would be a major problem in this alternative. Funds could be raised through the sale of other park land such as the Gillies Lane site, Federal and state open space Funds, city parkland acquisition funds, and through private contributions.

- Alternative 3: Waterfront Hotel/Conference Center

  This alternative would require an amendment to the B Residence zone allowing waterfront hotels and conference centers by special permit. The assumption here is that the Roton Point Club would be purchased by a large corporation which would develop the property for an 80,000 square foot conference center or hotel. The existing buildings could be retained and used for banquet hall, meeting rooms, and beach houses. The hotel would contain a restaurant open to the public and public access to the waterfront fishing pier would be provided.

C. Wilson Cove (Goals & Objectives: A1,B1,C5)

Wilson Cove has several smaller issues at stake. The Morland property is a beautiful rocky slope with four historic structures, but the potential for much greater development under the A Residence Zone. The newly enacted Conservation Development Zone 118-410 would allow cluster development of this site thereby allowing the historic structures and natural land features to be preserved as much as possible.

The Wilson Cove Yacht Club has 100 slips and upland winter storage and repair facilities. The zoning, however, is A Residence Zone under which zone boat clubs are not permitted.

- Alternative 1: A Residence Zone

  If the existing zoning were retained, the Wilson Cove Yacht Club would remain a pre-existing non-conforming use - meaning that it could remain but could not expand and if it were ever destroyed by fire or natural disaster it could only be replaced by single family homes, or a small cluster residential development.

- Alternative 2: A Residence Zone - Boat Clubs by Special Permit

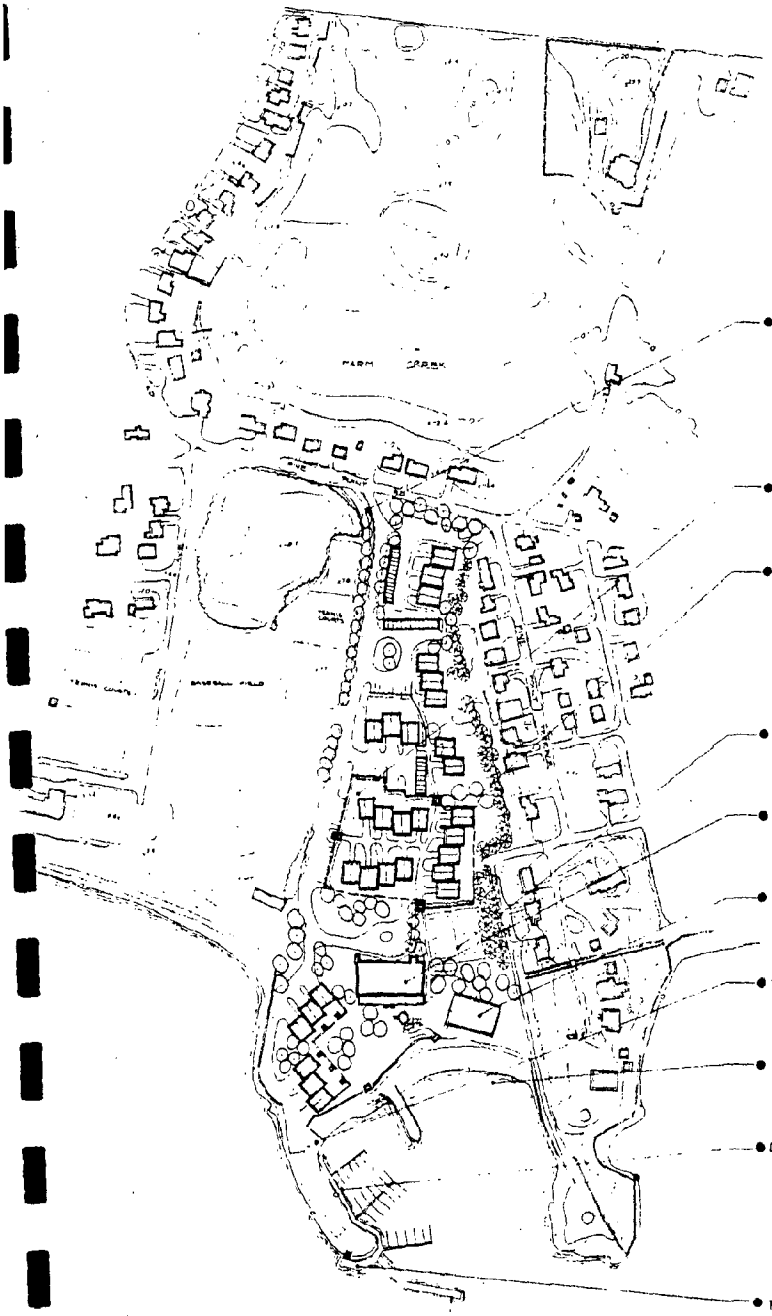
  This alternative would make boat clubs a special permit use in the A Residence Zones, thus allowing such uses to exist, expand and rebuild if the conditions of the special permit are met. Such a category would also apply to the Norwalk Yacht Club which is also in Wilson Cove in the AAA Residence zone, the Shore and Country Club which is in a B Residence zone and the Sprite Island Club which has a facility in the AAA Residence Zone.

For Development	Permitted	Scale	Beneficial	Adverse	Public Improvements
Alternative #1 B Residence Zone (existing zoning)	1 Family PRD	7 units/acre 9 units/acre	-would provide needed housing -could be designed to incorporate historic structures and natural features -would add to tax base -could include limited public access	-would remove large amount of open space -would add to traffic on narrow local roads -scale of condo could be out of character with surrounding development -would further limit public access to beaches	-road improvements Pine Pt. Rd., Roton Av -sewer drainage improvements -mass transit improvement (wheels route extension)
Alternative #2 Public Park (existing zone to remain)	Park & Open Space	Year-Round Watertront park	-would provide new major public beach and watertront park on Western coastline of Norwalk	-could have substantial traffic impact on local roads -capacity limited would need some form of regulating attendance -non-tax producing, but would account for some new jobs	-road improvements Pine Pt. Rd., Roton Ave. -Park improvement (ongoing rather than large single capital outlay) -mass transit improvement (Wheels route extension)

Roton Point Alternatives For Development	Type of Use	Scale	Impact of Development Beneficial	Impact of Development Adverse	Public Improvements
Alternative #3 B Residence Zone - allow waterfront hotels, corporate training centers, clubs by special permit	Corporate Training Ctr. or Luxury Hotel-Conference Center	150 rooms, tennis, boating facilities indoor recreation facilities, meeting rooms, conference facilities.	-would provide low intensity commercial use of property -high quality improvements -would return most if not all of land value to land owner -tax and job producing -some limited public access could be provided in the form of walks to beach from Bayley Beach parking lot or limited annual memberships, or limited public use	-would further limit public recreation on waterfront -would add to traffic on narrow local roads -scale of development might be out of character	-new road along old trolley right of way -other road improvements: Pine Point Roton Avenue -mass transit improvements (wheels route extension)
Alternative #4 Private Club (B Reen/Water - front Club) Purpose: to continue the club use of the property as a waterfront recreational club facility	Private waterfront Clubs by special permit only	15 paved 90 lawn	Would continue private waterbased recreational facility -would limit intensity of use -some facilities could be open to public on a limited basis e.g. sailing school, swimming pool -year-round recreation facility: possible indoor tennis, swimming.	Landowner could develop up to 120 units of housing unless club or other purchased development right -year round club would require additional structures. Winter traffic.	- road improvements: Pine Point Rd. -Roton Avenue -sewer & drainage improvements -mass transit improvement

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED
RESIDENTIAL	—	120 UNITS	240 SPACES	SURFACE: 50 GARAGE: 220
COMMERCIAL	—	—	—	—
OFFICE	—	—	—	—
INDUSTRIAL	—	—	—	—

± 13 ACRES
± 9 DU/ACRE



- PUBLIC ACCESS TO NEIGHBORHOOD FISHING PIER
- BOAT STORAGE UNDER DECK
- PARKING FOR 150 CARS UNER DECK
- 2 TENNIS COURTS
- HISTORIC BUILDING TO BE USED AS CLUB HOUSE / RECREATIONAL FACILITY
- REMODELED BATH HOUSE
- BOAT RAMP
- SWIMMING BEACH
- DOCKS & 25 SLIPS
- PUBLIC FISHING PIER

NORWALK COASTAL AREA MANAGEMENT PROGRAM

OTON POINT

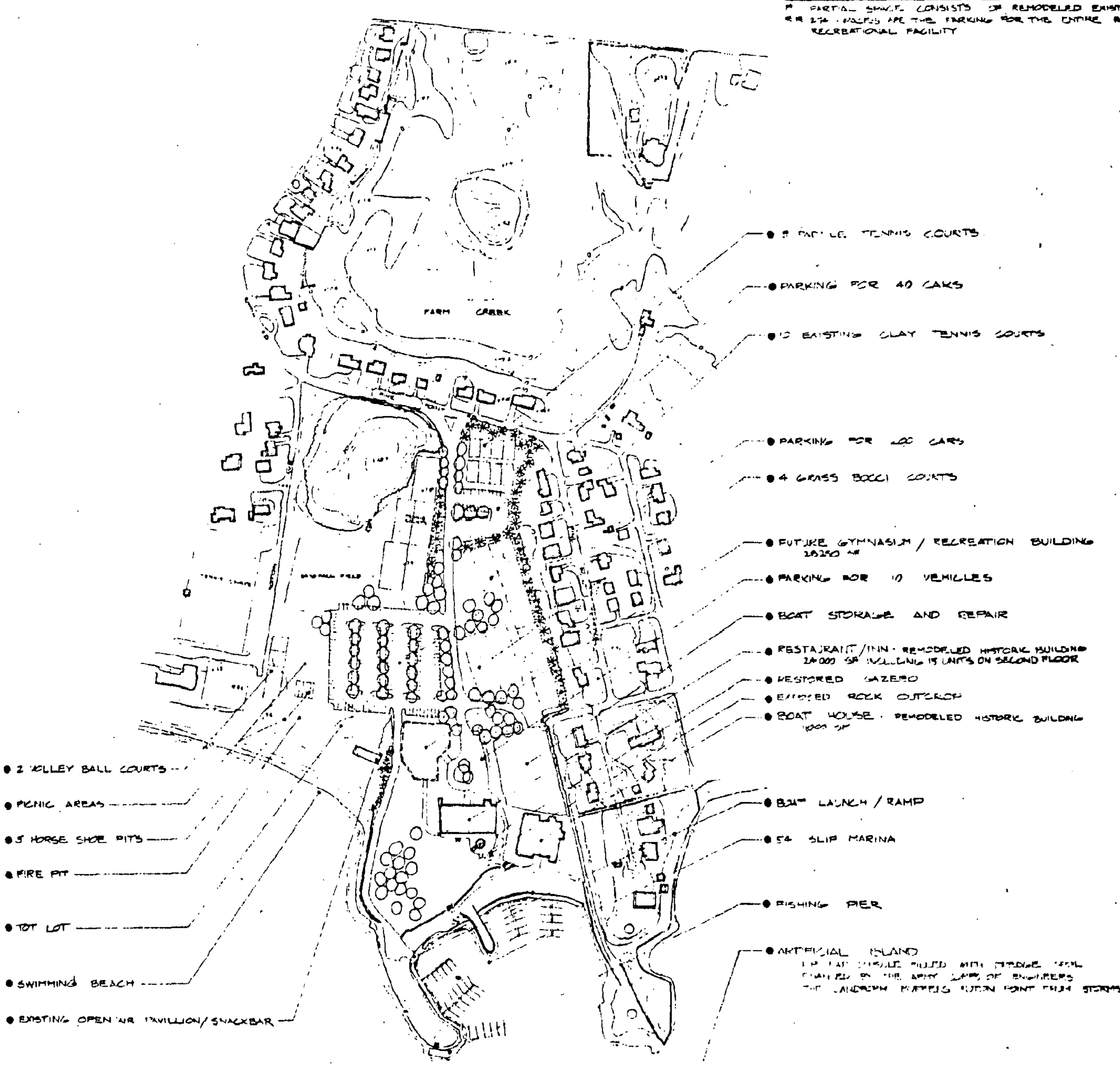
LANDUSE ALTERNATIVE 1

RESIDENCE / PRD

100 600

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKIN- REQUIR
RESIDENTIAL	—	—	—	—
COMMERCIAL	—	63,500 SF*	140 SPACES	SURFACE
OFFICE	—	—	—	—
INDUSTRIAL	—	—	—	—

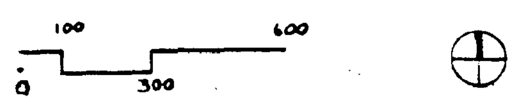
* PARTIAL SPACE CONSISTS OF REMODELED EXISTING BUIL
** 274 SPACES ARE THE PARKING FOR THE ENTIRE ROTON POI
RECREATIONAL FACILITY



ROTON POINT

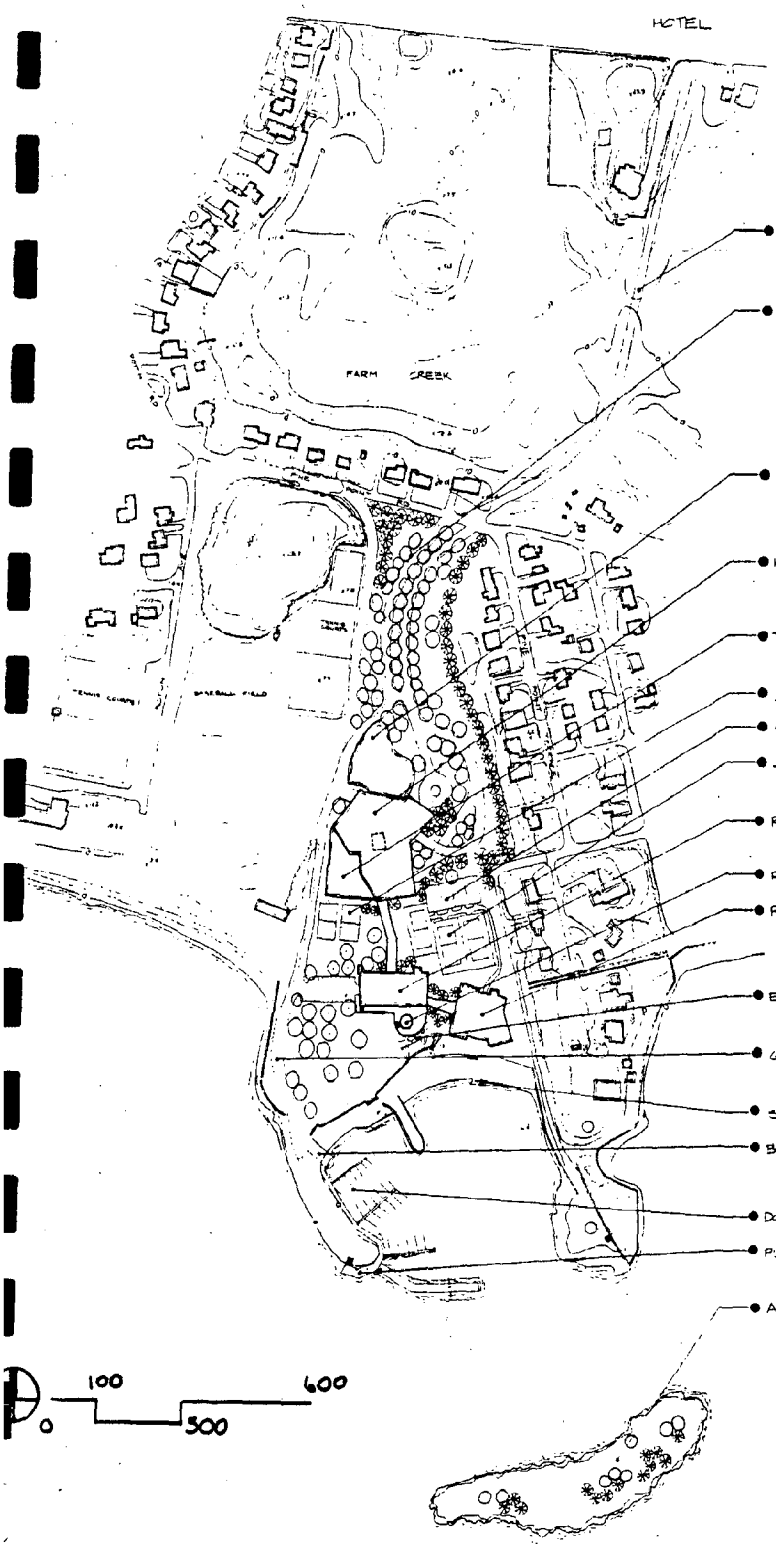
B RESIDENCE / PARK

LANDUSE ALTERNATIVE 2



	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED
RESIDENTIAL	—	—	—	—
COMMERCIAL	—	5,000 SF	20 SPACES	SURFACE: 20
OFFICE	—	43,000 SF	105 SPACES	SURFACE: 110 * GARAGED: 100
INDUSTRIAL	—	—	—	—
HOTEL	—	40 UNITS	40 SPACES	0

* PARKING IS SHARED BY ALL THE FACILITIES

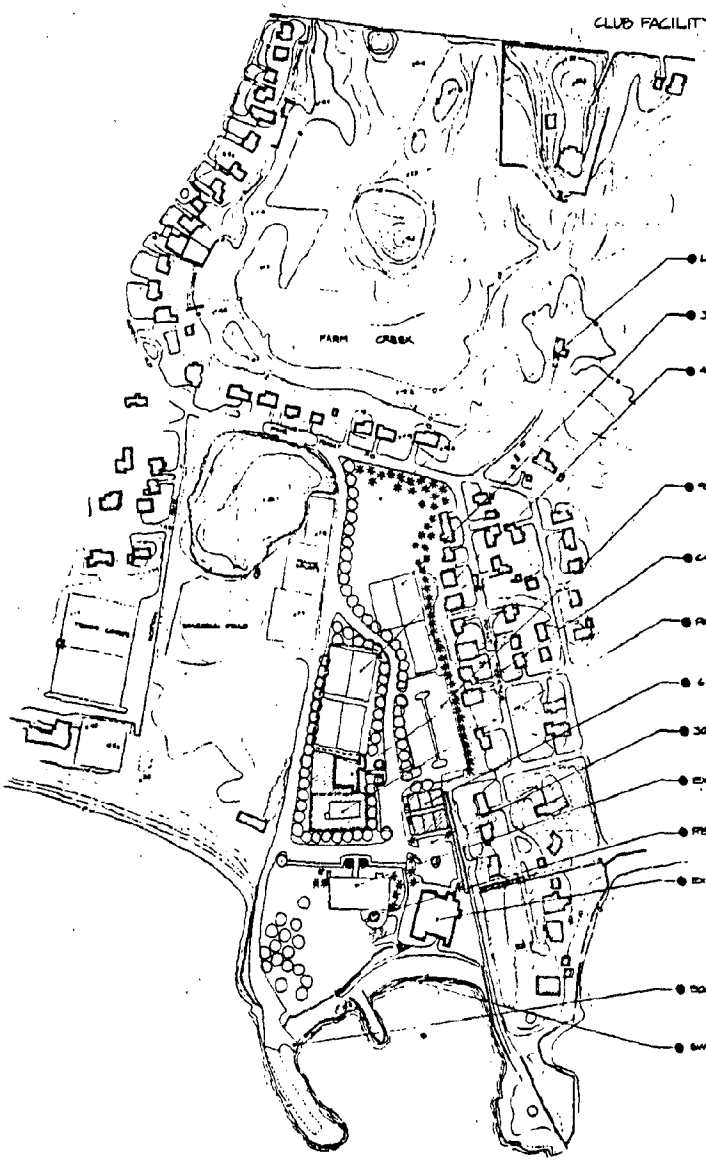


ROTON POINT : LANDUSE ALTERNATIVE 3

B RESIDENCE/ CONFERENCE CTR.

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED
RESIDENTIAL	—	—	—	—
COMMERCIAL	—	—	—	—
OFFICE	—	—	—	—
INDUSTRIAL	—	—	—	—
CLUB FACILITY		CORE FACILITY - 43,100 SF TEMPORARY (SEASONAL) BUBBLE STRUCTURES TENNIS BUBBLE - 16,400 SF POOL BUBBLE - 11,200 SF EXISTING ACCESSORY BUILDINGS 24,000 SF	OUTDOOR SURFACE PARKING OVERFLOW PARKING BAYLEY BEACH*	150 SPACES 100 SPACES 300 SPACES

*POSSIBLY AN AGREEMENT BETWEEN BAYLEY BEACH AND ROTON POINT CLUB COULD BE REACHED TO ALLOW MEMBERS OF THE LATTER TO PARK AT THE FORMER, ASSUMING A 2,000 PERSON MEMBERSHIP, A TOTAL OF 500 PARKING SPACES ARE REQUIRED.



- LAWN AND OVERFLOW PARKING AREA CAN ACCOMODATE 100 CARS.
- 3 EXISTING TENNIS COURTS
- 4 NEW TENNIS COURTS WHICH CAN BE ENCLOSED BY 24,400 SF BUBBLE STRUCTURE
- 90 CAR PARKING LOT
- CORE CLUB BUILDING (43,100 SF) HOUSES THE SWIM TEAM OFFICE, CONCESSIONS, LOCKERS, SHOWERS, & SAUNA.
- POOL, WHIRLPOOL, & SUN DECK WHICH CAN BE ENCLOSED BY 11,200 SF BUBBLE.
- 6 PADDLE TENNIS COURTS
- 30 CAR PARKING LOT
- EXISTING PAVILION REMODELLED AS CLUB BAR, DINING ROOM, & BALLROOM. (24,000 SF)
- RESTORED GAZEBO
- EXISTING HISTORIC BUILDING REMODELLED AS SUMMER BATHHOUSE, CONCESSION AREA, & POSSIBLY CHANGE ROOM (11,400 SF)
- BOAT LAUNCH AREA
- SWIM AREA

COASTAL MANAGEMENT PROGRAM

ROTON POINT: LANDUSE ALTERNATIVE 4

PLANNING & ZONING
NORWALK, CONNECTICUT

FEET 100 300 900

- Alternative 3: Marine Commercial Zone

This alternative would rezone the Wilson Cove Yacht Club for exclusive marine commercial use. This would allow the boating facility to be used by the general public, would allow other water related activities to occur such as boat sales, boat repair, boat building and boat servicing which would encourage a steady income and permanent water dependent use of the property.

D. Village Creek (Goals & Objectives: A1,B1,B2,C1,C2,C3,C4,D1)

The Village Creek tidal wetland is one of the largest in Norwalk and one of the most threatened. Its current zoning is "Heavy Industrial", a direct conflict with its classification by the Connecticut Department of Environmental Protection as a designated tidal marsh. The marsh is surrounded on two sides by manufacturing industries and junk yards many of which were developed on fill over the past half century. Many of these industries have room for expansion without severely impacting the tidal marsh, but the zoning indication that the entire marsh is available for industrial development is misleading in view of State and local CAM goals.

- Alternative 1: Heavy Industrial Zone

If the present zoning pattern were allowed to remain, it would continue to lead to a confusing and inconsistent state and local regulations, and the potential loss of major additional amounts of this wetland.

- Alternative 2: Wetland Conservation Zone

Under this proposal the area designated by the State of Connecticut as a regulated tidal wetland would be zoned as "Wetland Conservation Zone," a new zoning category. The only permitted activities in this zone would be those permitted by the State D.E.P. without a permit, i.e. farming, fishing and hunting.

Such a zone would not greatly reduce development rights, since the State has already placed restrictions on the wetland. Further, none of the industrial properties surrounding Village Creek have been developed to the full potential of the allowance under this zone, i.e. 8 stories and 90% coverage. There is a large untapped development potential for expansion on the non-designated areas of the industrial zone which if properly designed to mitigate harmful impacts on the surrounding wetlands, allows sufficient space for expansion and modernization.

E. Manresa Island (Goals & Objectives: A1,A2,A3,B1,B2,C2,C3,C4,C5,D1)

Manresa Island, owned by Connecticut Light and Power division of Northeast Utilities is, in reality, three environments: (1) the oil burning regional electric power plant with its modern barge-loading facility which has coal capability as well; (2) a large flat open area which was used for fly-ash disposal when the plant was a coal burning facility and (3) the second largest tidal marsh on the Norwalk Coast (the largest being Canfield Island Creek). The zoning classification for Manresa bears little relationship to the existing situation - all of Manresa is zoned for B Residence (single family housing on 6,250 square foot lots or PRD developments. at a density of 7 dwelling units/acre. Since this zoning classification bears little relationship to existing or potential future land use, it is assumed that it will not be considered further.

One approach to Manresa is to rezone it functionally in accordance with State and local CAM goals. The power plant facility could then be zoned in a "Marine Industrial" or "Heavy Industrial" classification; the fill area as public use-water related implying limited water-oriented recreational use such as a fishing pier, small boat launch or viewing pier; and the tidal wetland as "Wetland Conservation Zone" (see section describing this zone under Village Creek).

F. Water Street (Goals & Objectives: A1,A2,A3,A4,A5,B1,C4,C5,D1,D2)

The Water Street area from Burritt Avenue on the south to Washington Street on the north is one of the most interesting areas of the coastal area because of its close intermixture of land uses, most of which are water dependent marinas, boatclubs, the oyster industry, and three port facilities (sand, gravel, oil). Again, the existing zoning (Heavy Industrial) for this waterfront area bears little relationship to existing land uses. (See development matrix.)

- Alternative 1: Heavy Industrial Zone

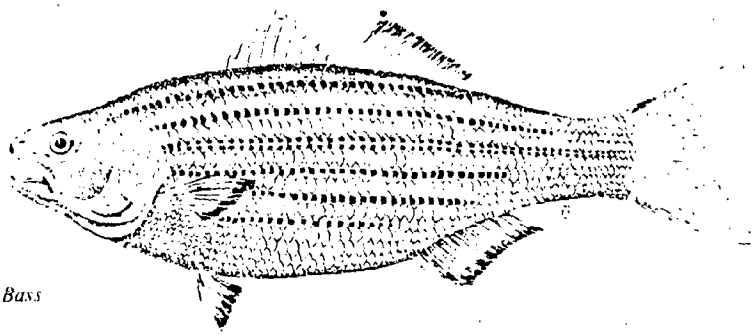
  This zone, once designed for large multi-story factories, if allowed to remain on Water Street, could lead to the eventual elimination of most if not all the water dependent uses and their replacement by office buildings. The Heavy Industrial Zone allows an 8-story office or commercial building with 90% coverage. Such a complete change in land use up to the maximum allowed by zoning with office buildings replacing traditional marine related uses occurred in Greenwich harbor, Stamford harbor and the Five Mile River harbor in Rowayton. With the immediate proximity to the South Norwalk Revitalization area such an office building boom could very well result as the area becomes more attractive for private investment.

- Alternative 2: Marine Commercial Zone

A marine commercial zone would permit only marinas, boat clubs, fishing industries, and port facilities (see description under "Rowayton Avenue" section). Such a zone would protect the water dependent uses along the South Norwalk waterfront and would cause the small non-water related industries, service stations and commercial buildings to become non-conforming. Its chief disadvantage is the large amount of development potential that would be lost on the waterfront.

- Alternative 3: Design District Zone

A design district zoning category would allow a mixture of land uses with consistent controls regarding height, bulk, setback landscaping, signs, colors and architectural review. Such a zoning district could result in the same concentration of office buildings as in the Heavy Industrial alternative. Residential and mixed use developments could also result and boat clubs and marinas could develop part of their land and still maintain their boat facilities.



Striped Bass

G. Landfill-Washington Street (Goals & Objectives: A1,B1,B2,C1,C4,C5,C6, D1,D2)

- South Norwalk Revitalization Area

The South Norwalk Revitalization Program, part of which was funded with Coastal Area Management Funds, provides the basis for future development in South Norwalk. Phase one of the program is well on its way towards implementation.

In discussing zoning within South Norwalk, the program states: "Current zoning in the Revitalization Area does not reflect present trends nor does it protect areas from future incompatible uses. . . . Special historic zoning should be considered for this area. In addition, a special waterfront district should be established along South Norwalk's urban waterfront to replace current Heavy Industrial zoning and encourage and control compatible new uses". (South Norwalk Revitalization Program; Anderson, Notter Finegold).

Major new uses shown along the waterfront are the Maritime Center, the Maritime Center Parking Garage, 50 Water Street (retail and commercial use) and a 150 room hotel.

A preliminary draft of a Washington Street Design District zone has been prepared. It would apply to the entire historic district and 50 Water Street. The development scenario for Water Street would apply to the hotel conference center which would be possible under alternative 1 (Heavy Industrial) or Alternative 3 (Design District).

The proposed Maritime Center parking garage on the waterfront has also been discussed at length. Alternative sites for this garage have been shown on the proposals now being developed for the Landfill Railyards - Reed Putnam area.

- Landfill-Reed Putnam Railyards

Preliminary plans have been prepared for this area, recognizing its enormous value as a major development site in the City of Norwalk and the region. The three development plans differ in intensity, however, they all call for a mixture of office, residential and hotel construction with waterfront parks and connecting pedestrian spaces.

The following summarizes the three development options:

- Alternative 1

  - new office development: 925,000 sq. ft.
  - hotel conference center: 150-200 rooms
  - retail commercial: 20,000 sq. ft.
  - landscaped riverfront park

- Alternative 2

  - new office development: 925,000 sq. ft.
  - hotel/conference center: 300 rooms
  - retail commercial: 30,000 sq. ft.
  - housing: 50 units
  - landscaped riverfront park

- Alternative 3

  - new office development: 850,000 sq. ft.
  - hotel/conference center: 300 rooms
  - retail commercial: 10,000 - 70,000 sq. ft.
  - housing: 600 units
  - waterside restaurant
  - landscaped riverfront park
  - parking garage for Maritime Center between Ann Street & Marshall Street

Landfill, Reed-Putnam, Railyards Alternatives For Development	Type of Use Permitted	Scale	Beneficial	Adverse	Public Improvements
Alternative 1 Limited Scale • Emphasize public investment along rivers edge • maintain railyard while allowing linear development along waterfront • emphasize mixed-use on a parcel basis • provide sites for housing along water-front • maximize Reed-Putnam site for office, residential & hotel development • Develop portion of landfill site for corporate office	• office • residential • hotel • commercial retail	• 8 stories/625,000 sq.ft. - 50 units (town-house) - 200 rooms - 50,000 sq.ft. commercial	• limited development with minimum public improvements • $164,000,000 private investment • 4,000 jobs • estimated taxes: $2.9 million • limits high land acquisition costs • limits development on landfill • 1887 ADT	• minimal development in a highly visible development site • does not eliminate railyard • does not provide good interconnection of Reed-Putnam and waterfront.	• city assistance in land assembly acquisition & relocation • provide long range development plan • negotiate new rail station & pedestrian over-pass • complete landfill plan and create site for new office • provide and maintain open space on remainder of landfill • negotiate development rights for portion of railyard • construct on cost sharing basis new road between landfill and Ann St. • Ann/Marshall Street one way loop.

Landfill, Reed-Putnam, Railyards Alternatives For Development	Type of Use Permitted	Scale	Beneficial	Adverse	Public Improvements
Alternative 2 Moderate Scale (Same as above except expands taking of railyard, provides more sites for housing emphasizes Reed-Putnam Site)	• office • residential • hotel • commercial/retail	• 8 stories/625,000 sq.ft. • 350 units highrise and townhouse housing • 300 room hotel • 50,000 sq. ft. commercial	• moderate development with significant public improvements • $221,000,000 private investment • 3,600 jobs • estimated taxes - $3.9 million • limits development on landfill • positive connection of Reed Putnam & Railyard • 2015 ADT	• Does not take maximum development potential of property • Does not eliminate railyard	• same as above plus more acquisition costs of railyard • new road along waterfront
Alternative 3 Large Scale (Same as above except entire railyard is acquired, extensive development of landfill)	• office • residential	• 8 stories/900,000 • 600 units highrise & townhouse housing • 300 room hotel • 10,000 sq.ft. commercial	• major development to capacity of site • $308,000,000 private investment • 4,800 jobs • estimated taxes 5.1 million • positive connection of Reed-Putnam railyard •2620 ADT	• extensive development on landfill would require hauling solid waste to suitable landfill • new bridge over RR would be high cost public improvement • traffic impact excessive on I-95	• same as above plus acquisition of entire railyard, new bridge over railroad, removal of landfill, excessive traffic impact would require staggaring working hours, etc..

H. Upper Harbor (Goals and Objectives: A1,A2,A3,A4,B1,B2,C1,C4,C5,D1,D2)

The existing zoning on the upper harbor consists of "Heavy Industrial" zoning on the western side of the River from I-95 on the South to the Wall Street area on the north. The eastern side of the River is zoned Light Industrial No. 1 and Restricted Business. Upland zoning consists of Light Industrial No. 1, Business No. 2, D Residence and Restricted Business Zones. Despite the zoning classification there are few manufacturing industries within the industrial zone, only King Industries, Ferro Inc., and the D'Addario asphalt plant. (which is a non-conforming use). The upper harbor is, however, the location of four port facilities (Norwalk Oil, Home Oil, D'Addario, and Devine Brothers) and two other water dependent uses (Maritronics boat storage and marina, and the Norwalk Boat Club).

The Heavy and Light Industrial Zones as we have seen in previous sections, allows up to eight story commercial and industrial structures and 90% lot coverage. The following alternatives reflect three possible scenarios for this area. (See development matrix).

- Alternative 1: Heavy Industrial Zone and Light Industrial #1 Zone

  The first alternative assumes that the zoning will remain exactly as it is today. With the continued development pressures and rising values of waterfront land, the upper harbor could be expected to change over time (5-10 years) to a predominance of large office buildings, replacing the port facilities and the manufacturing industries. An estimated 1.5 million square feet of office space could be constructed under existing zoning reaping large profits to landowners, but having a major impact on Norwalk's coastal development. If the port facilities are eliminated on the upper harbor, action will be needed to protect the three facilities on the lower harbor or the City will lose its commercial port entirely. Additional impacts of this alternative are illustrated in the illustrative site plan and summarized in the accompanying development matrix.

- Alternative 2: Marine Industrial Zone

  This alternative is based on the premise that the upper harbor waterfront which is now zoned "Heavy Industrial" and "Light Industrial #1" would be rezoned to a new zoning category, "Marine Industrial Zone". The purpose of this zone would be to protect the port activity in the upper harbor from competing and more profitable land uses, i.e. office buildings. It is a zone which would allow, as of right, ports, tank farms, boat building and repair, boat storage, and other uses

defined by the State CAM act as "water dependent", but not including office buildings, retail uses, or multi-family residential uses. Incidental or accessory commercial uses would also be permitted such as offices which are attached to marine industries, warehouses, and convenience commercial uses. The effect of this zone, over time (5-10 years) would be to protect all existing port facilities as shown in the illustrative site plan, and to allow for new water dependent industries to locate here. The beneficial and adverse impacts of this alternative are summarized in the accompanying table.

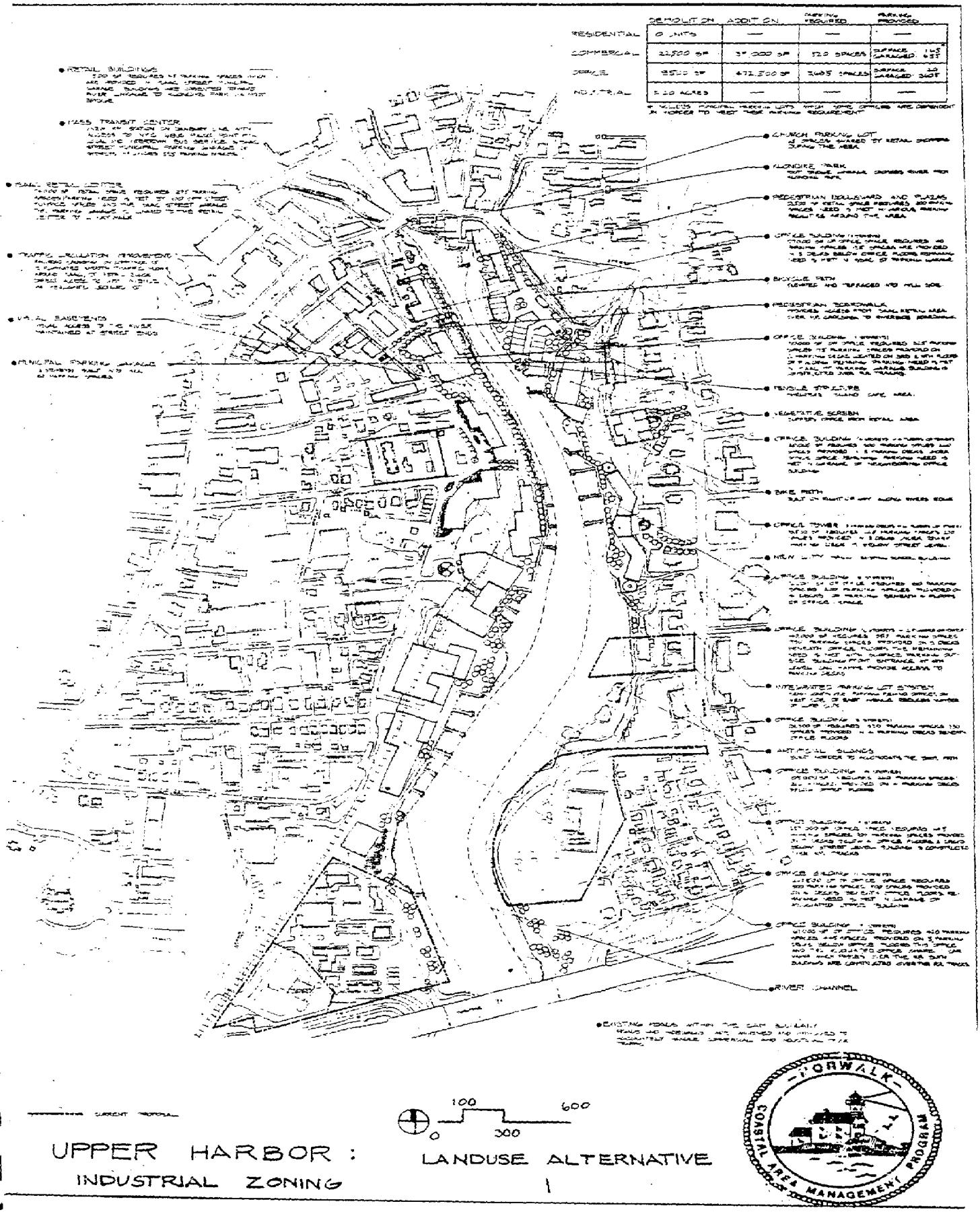
Alternative 3: Design District Zone

This alternative is based on the premise that the upper harbor waterfront which is now zoned "Heavy Industrial" and "Light Industrial #1" would be rezoned to a "Design District Zone". The purpose of this zone would be to allow a wide variety of land uses, but to require a minimum design standard for each of the uses permitted in this zone. The zone would allow industrial, commercial, and residential uses, but would require minimum building setbacks, coverage, height restrictions, landscaping, public access (if the use is non-water dependent) and design review. Views of the water would be protected and enhanced through a "step-back" height requirement or a "view scope" visual easement (in accordance with an adopted shoreline view map).

Transfer of development rights could also be permitted allowing a property owner on the waterfront to build in excess of the permitted height if a visual easement is provided or if development is scaled down close to the waterfront. Transfer of development rights could also be used to protect a historic landmark or particularly valuable open space.

The overall scale of development in this zone would still be that of an urban, developed shorefront (90% coverage, 8 stories) but the "step height" requirement or viewscope protection would be permitted at higher densities than allowed now (30 units/acre) and, depending on the location, some very high density high rise towers would be encouraged (see illustrative site plan). limit waterfront development. Housing would be permitted at higher densities than allowed now (30 units/acre) and, depending on the location, some very high density high rise towers would be encouraged (see illustrative site plan).

Under this alternative the major undeveloped parcels of land could be expected to develop as residential or office with strong on-site amenities such as promenades, plazas, boardwalks, piers, marinas, etc. Extensive planting, fencing and other buffering devices would be used to separate in compatible land uses.

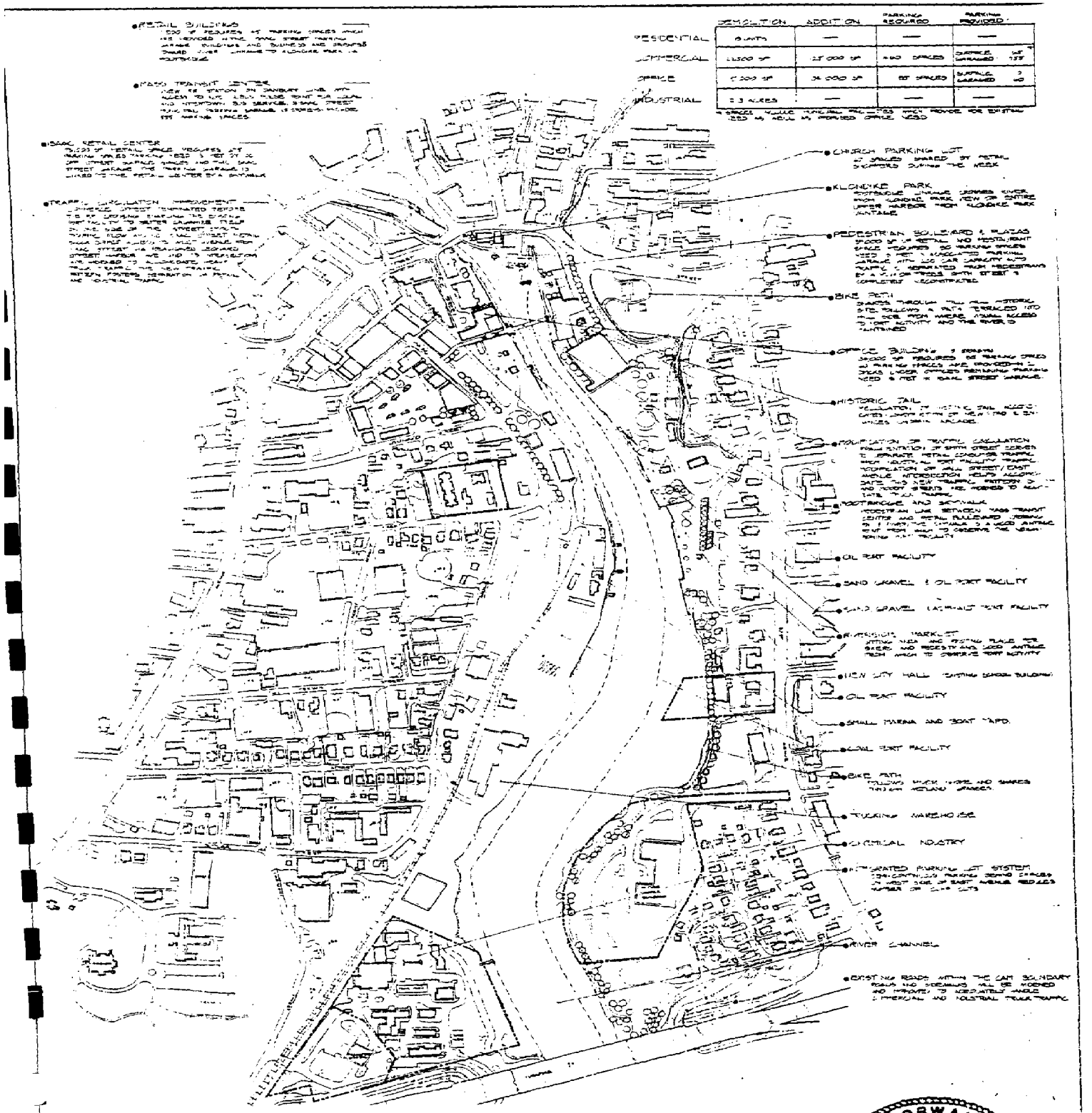


UPPER HARBOR : LANDUSE ALTERNATIVE

INDUSTRIAL ZONING

1

NORWALK
COASTAL AREA MANAGEMENT PROGRAM



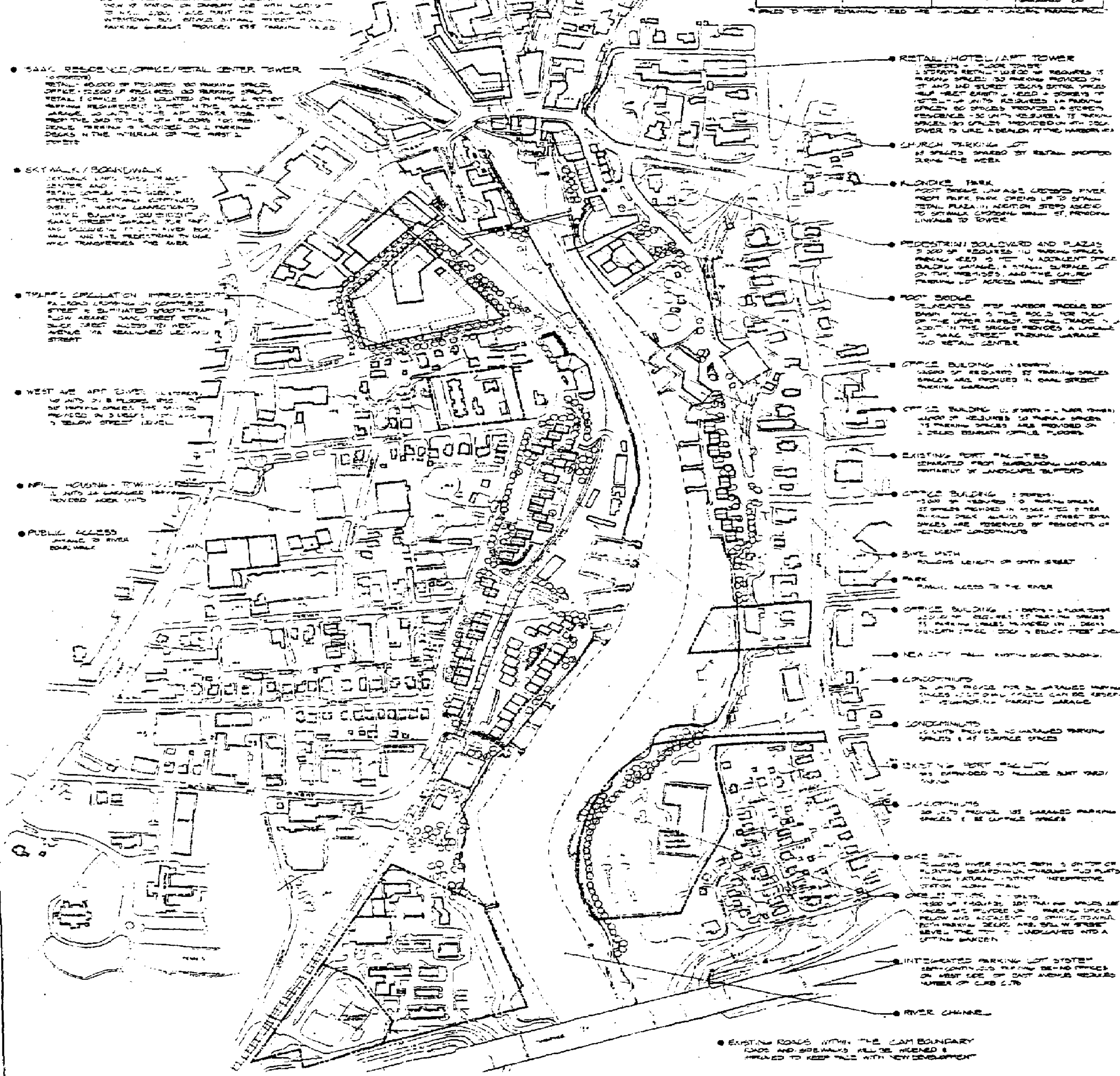
NORWALK COASTAL AREA MANAGEMENT PROGRAM

UPPER HARBOR : LANDUSE ALTERNATIVE

MARINE INDUSTRIAL

2

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED
RESIDENTIAL	10 UNITS	[illegible] UNITS	[illegible] SPACES	SURFACE [illegible] GARAGED [illegible]
COMMERCIAL	37,500 SF	[illegible] SF	470 SPACES	SURFACE [illegible] GARAGED [illegible]
OFFICE	5,000 SF	515,500 SF	[illegible] SPACES	SURFACE [illegible] GARAGED [illegible]
INDUSTRIAL	[illegible] ACRES	—	—	—
HOTEL	—	[illegible] UNITS	[illegible] SPACES	SURFACE [illegible] GARAGED 60



UPPER HARBOR: LANDUSE ALTERNATIVE 3

DESIGN DISTRICT

NORWALK COASTAL AREA MANAGEMENT PROGRAM

UPPER HARBOR ALTERNATIVES FOR DEVELOPMENT

ALTERNATIVE #1 Heavy Industrial (existing zoning)	Type of Development	Scale of Development	Impact of Development: Beneficial	Impact of Development: Adverse	Public Improvements
Purpose: To encourage major manufacturing industries and other related land uses.	• Industrial • Commercial • Housing (2 Family only)	90% coverage 8 stories -Total floor Area Permitted: 1.6 million sq.ft. -Floor Area Ratio 6 -No Site improvements required -Parking: 4,000 spaces	-increased office construction would create 4,200 jobs & $9,246,000 in taxes -would eliminate harmful effects of upper harbor industries over time -waterfront properties would have high redevelopment potential	-excessive traffic impact on East Ave. & Wall St. 23,000 added trips per day -would, overtime, lead to elimination of port from upper harbor -would require major commitment to housing.	-improvement of East Ave., Wall St., Commerce St., Harbor Ave. essential -$426,000 in road repairs -improvement of mass transit essential -public access and amenities to upgrade image

ALTERNATIVE #2 Marine Industrial	Type of Development	Scale of Development	Impact of Development: Beneficial	Impact of Development: Adverse	Public Improvements
Purpose: To encourage primarily water-related industries especially port Facilities	Water Dependent Industries: -ports including tank farms, sand & gravel, asphalt, coal -boat building & repair -other "water dependent" land uses (see definition)	-90% coverage - 8 stories -Total floor area: 130,000 sq. ft. - Floor Area Ratio: 6 -Site Improvements Required -Transfer of Development Rights possible -Parking-770 spaces	-would remove water front land from competing land uses i.e. office buildings & residential -would help assure future water development uses on the upper harbor -positive commitment towards Norwalk's continuation as a port -545 added jobs -$830,000 in added taxes	-would expand potentially hazardous commercial traffic on upper harbor -would remove development value of waterfront land -would add 4800 trips per day	-improvement of RR bridge over Norwalk River essential -periodic dredging of upper harbor necessary -improvement of Smith St., Harbor Ave., Commerce St., West Ave. Wall St. and East Ave., necessary costing $155,000

ALTERNATIVE #3 Design District	Type of Development	Scale of Development	Impact of Development Beneficial	Adverse	Public Improvements
Purpose: To encourage a mixture of land uses on the waterfront with a consistent set of design standards	-All uses permitted -Minimum design controls -landscaping -public access required along waterfront and to waterfront from street except if water dependent use -signs, colors, materials, architecture subject to review -"shoreline appearance & design", Long Island Sound Study standards to apply. -Buffering surrounding properties when uses are incompatible.	-All uses: -'step back' height controls or view preservation requirements -maximum height=8 stories -bulk-90% coverage -Total Floor Area: 406,000 sq.ft. -Floor area Ratio: 6 -minimum waterfront setbacks except for water dependent uses -transfer of development rights possible -650 residential unit -Parking: 2,800 spaces	-Does not reduce development rights except to enhance and protect views of water. -Allows mixed land use -would create over time a design unity -would encourage construction of housing to balance office construction -1300 new jobs -$1,600,000 in added taxes	-No clear direction for future land use -Could lead to concentration of office and residential development -15,500 added trips per day	-Improvement of RR bridge still important -Improvement of streets essential (see above) costing $665,000.

Some port facilities would remain in this alternative, namely Devine Brothers and Home Oil - the other port facilities would be replaced by residential and office developments.

In this scenario business zoning is projected to remain along Wall Street and extend south to the Arzee Building Supply building on Smith Street, which is shown as a shopping arcade.

Other aspects of this alternative are illustrated in the illustrative site plan and the table.

I. Cove Avenue (Goals & Objectives: A1,A4,A5,B1,B2,C1,C4,D1,D2)

The existence of a strip of Business No. 1 zoning along Cove Avenue from First Street to Fourth Street could lead to rapid changes in this predominately residential street. This has begun to happen with the proposed conversion of T. J. Marina into a multi-family residential development. (See development matrix.)

- Alternative 1: Business No. 1 Zone

The Business No. 1 Zone allowance of a four-story building and 90% coverage is in sharp contrast with the 1 and 2 family housing on Cove Avenue.

As illustrated on the accompanying site plan, the Business Zone could lead to additional office and residential uses displacing the remaining small marinas.

- Alternative 2: C Residence/Marine Commercial Zone

This landuse/zoning option would place primary emphasis on 2 family residential uses, the predominate existing land use on Cove Avenue. It would, however, allow by special permit only marine commercial uses such as boatyards and marinas. This would establish a hierarchy of land uses with the residential land use being first priority and marine commercial uses allowed only under special circumstances.

- Alternative 3: Marine Commercial Zone

This alternative would protect the small boatyards that exist on Cove Avenue and could lead to additional marinas and boatyards at the expense of several of the two-family houses.

These alternatives are illustrated on the accompanying illustrative site plans and development matrix.

Cove Avenue Alternatives For Development	Type of Use Permitted	Scale	Impact of Development		Public Improvements
			Beneficial	Adverse	
ALTERNATIVE 1 Business #1 (existing zoning) Purpose: To encourage a wide variety of business uses and high-density residential developments	•commercial •residential	•4 stories & 50 ft/90% coverage 26 units/acre: family 35 units/acre:elderly •4 stories	-high development potential for condominiums, office buildings job & taxes associated with above -maintains high land value -would allow construction of new housing	-increased traffic -development would be out of scale -with one & two family housing -would not encourage marine related uses -might have negative impact on coastal resources: intertidal flats & undesig. wetlands.	-improve Cove Ave., First St. to handle increased traffic -improve city street-ends and Cove Avenue as public spaces
ALTERNATIVE 2 C Residence/ Marine Commercial Purpose: To encourage medium density residential development and marinas, boatyards by special permit only.	•1 & 2 family housing •marine commercial uses by special permit only •PRD (with 3 acre min. parcel size	•7 units/acre; 2-1/2 stories • 2-1/2 stories 90% coverage •9 units/acre 2-1/2 stories	-would establish zone in keeping with predominate land use i. e. 1-2 family housing -would allow small marinas, boatyards but only by special permit -would encourage only commercial uses which are water dependent -would encourage housing as predominate land use	-would remove same land value -3 acre parcel could be assembled for PRD-altering character of 1-2 family neighborhood.	-improve Cove Ave. & city street ends as public spaces -increased dredging m be necessary with add tional marina constru tion.
ALTERNATIVE 3 Marine Commercial Purpose: To allow only marinas, boatyards, and commercial fishing facilities.	Marine Commercial	• 2-1/2 stories •90% coverage	-would give highest priority to water dependent uses -would encourage expansion of new marinas & boat yards.	-would make existing predominate land use non-conforming -would encourage expansion of existing marinas and new marinas adversely impacting coastal resources.	-improve Cove Ave. to handle increased marina traffic -provide off-street parking facilities on landward parcels

J. Canfield - Shorehaven - Cove Marina (Goals & Objectives: A,B,C&E)

The pastoral setting of Taylor Farm and Shore and Country Club is deceiving in terms of existing zoning. All of the largest tidal wetland in Norwalk, Canfield Island Creek is zoned for single family housing at a density of 1 house/acre. The wetland which is 99 acres could according to zoning policy allow 80-90 houses, but this zoning is in contradiction to the D.E.P. tidal wetland regulations which permit fill only if it can be shown that it will not irreparably harm tidal wetlands. In order to avoid confusing and misleading policies at the State and local level, it is suggested that the entire Canfield saltmarsh which has been designated as "AAA Residence" be designated "Wetland Conservation" as described in the Manresa and Village Creek alternatives.

Cove Marina

Cove Marina is zoned Business No. 1 a zone which permits a 4-story commercial building including office, and hotels as well as multi-family residential developments at a density of 26 dwelling units/acre. The following alternatives have been developed for Cove Marina.

- Alternative 1: Business No. 1 Zone

The ten acre parcel of land could accomodate a residential development of 220 dwelling units with 440 parking spaces, an 800,000 sq. ft. office building with 2,000 parking spaces, or a 300 room hotel with 300 parking spaces. The 300 slip marina would likely be a very desireable amenity for any of these developments, but which would likely become more restricted in usage (slips assigned for exclusive use of condominium owners, office workers or hotel patrons). The present large scale winter boat storage area, boat service and repair, boathouses and boat launching equipment could also be eliminated as the result of this development. The development of a moderate-large scale complex at Cove Marina would be beneficial in terms of providing housing, jobs and increasing the tax base, but the capacity of East Norwalk roads to handle this type of development is questionable.

- Alternative 2: Marine Commercial Zone

This alternative would "lock-in" the present use of Cove Marina for Marine related uses only. All of the present activities at the marina could be continued and expanded. Accessory uses such as restaurants, retail establishments catering to boaters and office space for boat sales and excursion boats would be permitted. Large scale, non-water dependent uses (such as office buildings would not be permitted ruling out any intensification or traffic or further development. The obvious disadvantage to this alternative is the large reduction of development rights it entails. It is not possible,

either to transfer development rights to any parcel of land in the vicinity, the East Norwalk area a predominate single family established neighborhood.

- Alternative 3: Marine Commercial/C Residence Zone

This alternative would allow any marine commercial use as described above under "Marine Commercial Zone". It would also allow by special permit only, multi-family condominiums under the "Planned Residential Development section of the C Residence Zone" or 16 units/acre for a total of approximately 136 units and parking for 272 cars.

K. Norwalk Islands (Goals & Objectives: A,B,C & D)

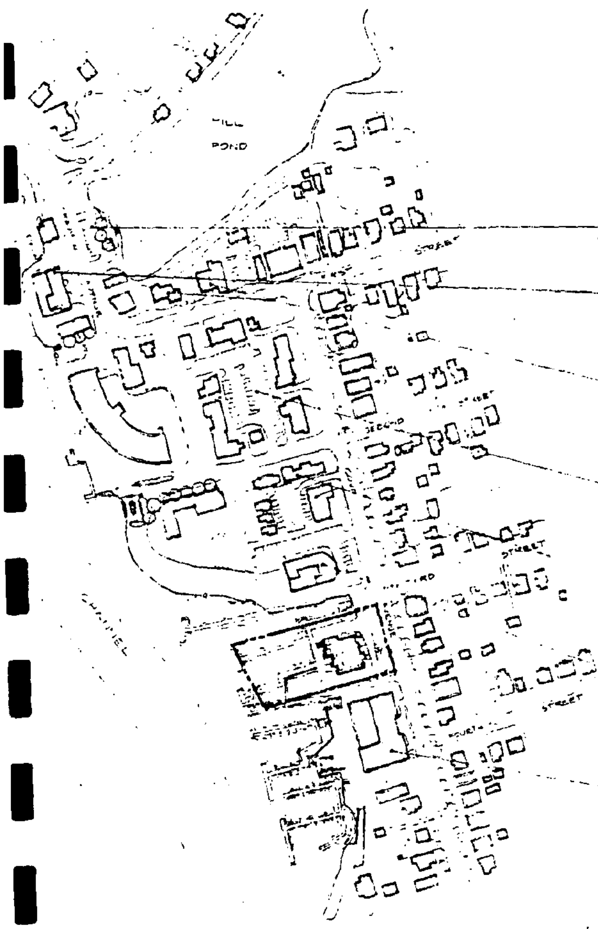
- Alternative 1 - Island Conservation Zone

We have seen that the two most valuable islands Chimmons (c. 60 acres) and Sheffield (c. 53 acres) are zoned under the Island Conservation Zone for residential development at a rate of 1 house/2 acres of land or approximately 30 houses on Chimmons and 26 on Sheffield. The main problem with this type of development would be provision of utilities: sewer, water, electricity and transportation, and the threat such development would pose on the fragile coastal resources on the Islands There would be advantages to such development, however, It would allow dedication of at least 50% of each Island as permanent open space, and could provide the possibility of a ferry service to both Islands with general public access. The effect of the zone on the other privately owned islands is to limit future building, but not prohibit it altogether. Those islands which have one acre or more of land area are as follows:

	approximate area	"island conservation zone" houses permitted
Chimmons	60 acres	30
Sheffield	52.8	26
Betts	14.8	7
Copps	7.9	3
Tavern	5.9	2
Hoyts	3.6	1*
Peach	3.5	1
Ft Hammock	1.7	0

*owned by Norwalk Land Trust and dedicated as private open space

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED
RESIDENTIAL	40 UNITS	35 UNITS	50 SPACES	GARAGED 30
COMMERCIAL	[illegible]000 SF	[illegible]350[illegible] SF	[illegible]5 SPACES	SURFACE 40
OFFICE	—	[illegible] SF	[illegible]5 SPACES	GARAGED 50 SURFACE 35
INDUSTRIAL	4[illegible] SF	—	—	—



- MUNICIPAL PARKING LOT
  [illegible] SPACES HELP FILL IN EXISTING NEED
- CONDOMINIUMS
  [illegible] UNITS 4 STOREYS; REQUIRE 2[illegible] PARKING SPACES
  30 PARKING SPACES PROVIDED ON 2 PARKING DECKS
  UNDERNEATH BUILDING, [illegible] WHICH [illegible] BELOW STREET LEVEL
- 2 RETAIL BUILDINGS
  4[illegible] SF REQUIRES 30 PARKING SPACES
  28 SPACES PROVIDED IN 2 MUNICIPAL PARKING LOTS
- RETAIL BLOCK
  18025 SF RETAIL SPACE REQUIRES [illegible] PARKING SPACES
  55 OFF STREET PARKING AND 4 STREET SIDE
  PARKING PROVIDED
- 2 RETAIL BUILDINGS
  4525 SF REQUIRES 24 PARKING SPACES
  21 OFFSTREET AND 3 STREET SIDE PARKING PROVIDED
- OFFICE
  22,500 SF (4 STOREYS) REQUIRES 55 PARKING SPACES
  55 PARKING SPACES PROVIDED ON [illegible] PARKING DECK
  UNDERNEATH BUILDING BELOW STREET LEVEL (20)
  AND WITH OFF STREET SURFACE PARKING (35)
- OFFICE
  23,500 SF 3 STOREYS REQUIRES [illegible]0 PARKING SPACES
  [illegible] SPACES PROVIDED ON PARKING DECK UNDERNEATH
  BUILDING BELOW STREET LEVEL
- EXISTING ROADS WITHIN THE CAM BOUNDARY
  ROADS AND SIDEWALKS WILL BE WIDENED AND IMPROVED
  TO ADEQUATELY HANDLE NEW DEVELOPMENT

CURRENT PROPOSAL

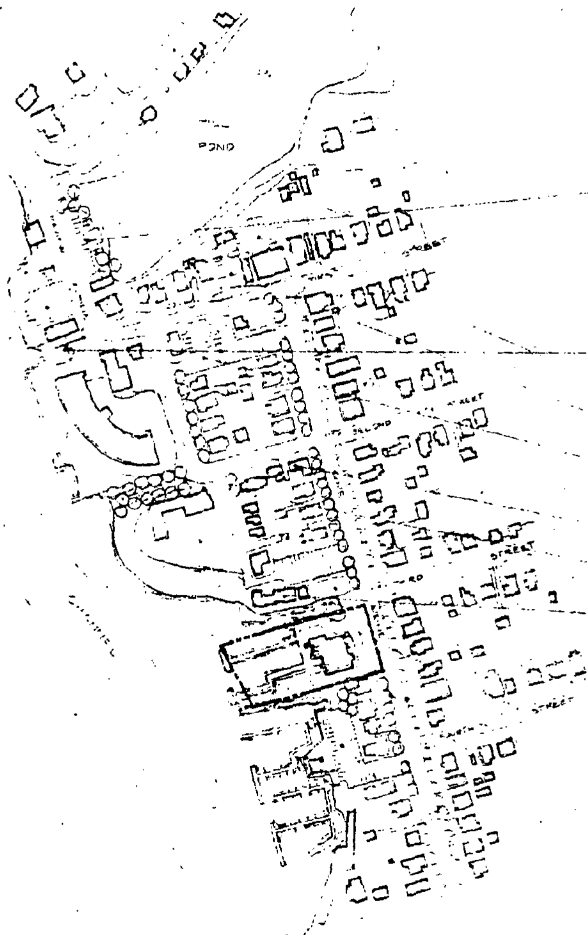
COASTAL AREA MANAGEMENT PROGRAM

COVE AVENUE: LANDUSE DEVELOPMENT ALTERNATIVE I
BUSINESS no. I

0 100 300 600

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED
RESIDENTIAL	8 UNITS	4 UNITS	4 SPACES	SURFACE 5
COMMERCIAL	—	2,500 SF	40 SPACES	SURFACE: 80*
OFFICE	—	—	—	—
INDUSTRIAL	4,850 SF	1100 SF	5 SPACES	SHARES RESTAURANT SPACES

* FILLS AN EXISTING NEED FOR PARKING



- MUNICIPAL PARKING
  5 SPACES PUBLIC ACCESS TO MILL POND FOR SKATING
  MINI-PARK WITH CONCRETE BON FIRE PAD
- MUNICIPAL PARKING
  20 SPACES
- STREET END MINI-PARK
  NEIGHBORHOOD BOAT LAUNCH AND LANDING
- MUNICIPAL PARKING
  8 SPACES
- MUNICIPAL PARKING
  5 SPACES
- MUNICIPAL PARKING
  40 SPACES
- INFILL HOUSING
  4 UNITS
- STREET END MINI-PARK
- RESTAURANT - REMODELED HISTORIC OYSTER HOUSE
  2500 SF REQUIRES 40 PARKING SPACES.
  35 OFF STREET PARKING SPACES PROVIDED 5 ADDITIONAL SPACES PROVIDED ON THE STREET.
- STREET END MINI-PARK AND SITTING AREA.
  OBSERVER CAN WATCH ACTIVITY OF FISHERMEN.
- COMMERCIAL FISHING DOCK AND TERMINAL
  INCLUDES 1100 SF OF STORAGE SPACE
  REQUIRES 5 PARKING SPACES WHICH ARE SHARED WITH THE RESTAURANT (RETURN TO TRADITIONAL LANDUSE.
- STREET TREES PLANTED INORDER TO ENHANCE RESIDENTIAL CHARACTER OF THE NEIGHBORHOOD
- MARINA PARKING LOT
  40 SPACES FILLS EXISTING NEED FOR 1 PARKING SPACE PER SLIP

CURRENT PROPOSAL

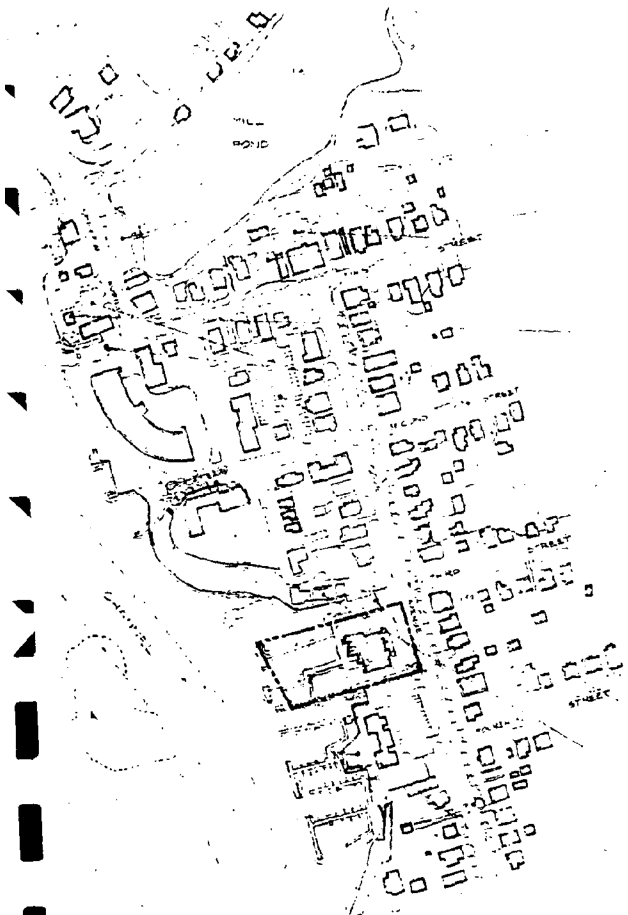
COASTAL AREA MANAGEMENT PROGRAM

COVE AVENUE: LANDUSE DEVELOPMENT ALTERNATIVE 2
C RESIDENCE / MARINE COMMERCIAL

100 200
0 300

	DEMOLITION	ADDITION	PARKING REQUIRED	PARKING PROVIDED.
RESIDENTIAL	[illegible] UNITS	[illegible] UNITS	[illegible] SPACES	—
COMMERCIAL	—	[illegible] SF	100 SPACES	SURFACE 55 *
OFFICE	—	—		
INDUSTRIAL	[illegible]000 SF	—	—	—

* FILLING AN EXISTING NEED FOR ADDITIONAL [illegible] PARKING

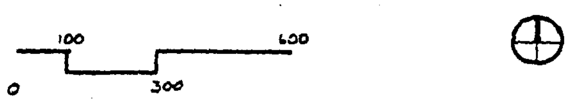


- MUNICIPAL PARKING
  [illegible] SPACES ALSO [illegible] ACCESS TO MILL POND FOR WINTER SKATING CONCRETE PAD FOR BONFIRES
- MUNICIPAL PARKING
  5 SPACES
- MUNICIPAL PARKING
  10 SPACES
- COMMERCIAL FISHING FACILITY
  [illegible] DOCK WITH TRUCKING STORAGE AND RETAIL SALE CAPACITY [illegible] SF OF BUILDING SPACE REQUIRES [illegible] PARKING SPACES 5 PARKING SPACES ARE PROVIDED [illegible] PARKING NEED CAN BE MET [illegible] ACCOMPANYING MUNICIPAL LOT
- STREET END MINI-PARK
  INCLUDES DOCK WHICH LEADS TO DECK AND SEMI-PERMANENT TENSILE STRUCTURE BEHIND RESTAURANT SMALL BOAT LANDING
- MUNICIPAL PARKING
  10 SPACES
- [illegible] BLOCK
  RESIDENCES [illegible] BLOCK GIVE WAY TO COMMERCIAL RETAIL USES SOME ARE COMMERCIAL ON FIRST STORY ONLY, OTHERS ARE COMPLETELY COMMERCIAL [illegible] 000 SF REQUIRES 75 PARKING SPACES 55 OFF STREET PARKING SPACES ARE PROVIDED [illegible] MUNICIPAL PARKING LOT THE REMAINING PARKING NEED [illegible] MET BY PARKING IN OTHER MUNICIPAL LOTS.
- STREET END MINI-PARK
  INCLUDES SMALL FLAT RAMP FOR LIMITED SIZED BOATS AND A FISHING [illegible] DOCK
- COMMERCIAL OYSTER FISHING FACILITY
  INCLUDES DOCK WITH STORAGE AND TRUCKING CAPACITY 3000 SF OF BUILDING SPACE REQUIRES 0 PARKING SPACES 0 PARKING SPACES ARE PROVIDED
- STREET END MINI-PARK
  INCLUDES [illegible] AND SITTING AREA FROM WHICH TO OBSERVE ACTIVITIES OF COMMERCIAL FISHERMAN
- MARINA FACILITY
  MARINA FACILITIES AND SUPPORT BUSINESSES [illegible] IN ONE BUILDING [illegible] SF [illegible] REQUIRE [illegible] PARKING SPACES 40 PARKING SPACES ARE PROVIDED
- EAST NORWALK CHANNEL MOORINGS
  MOORINGS WITHIN CHANNEL TO BE REMOVED [illegible] MOORINGS TO BE ASSIGNED TO VETERANS PARK
- EXISTING ROADS WITHIN THE CAM BOUNDARY
  ROADS AND SIDEWALKS TO BE [illegible] AND IMPROVED TO ADEQUATELY HANDLE NEW DEVELOPMENT

CURRENT PROPOSAL

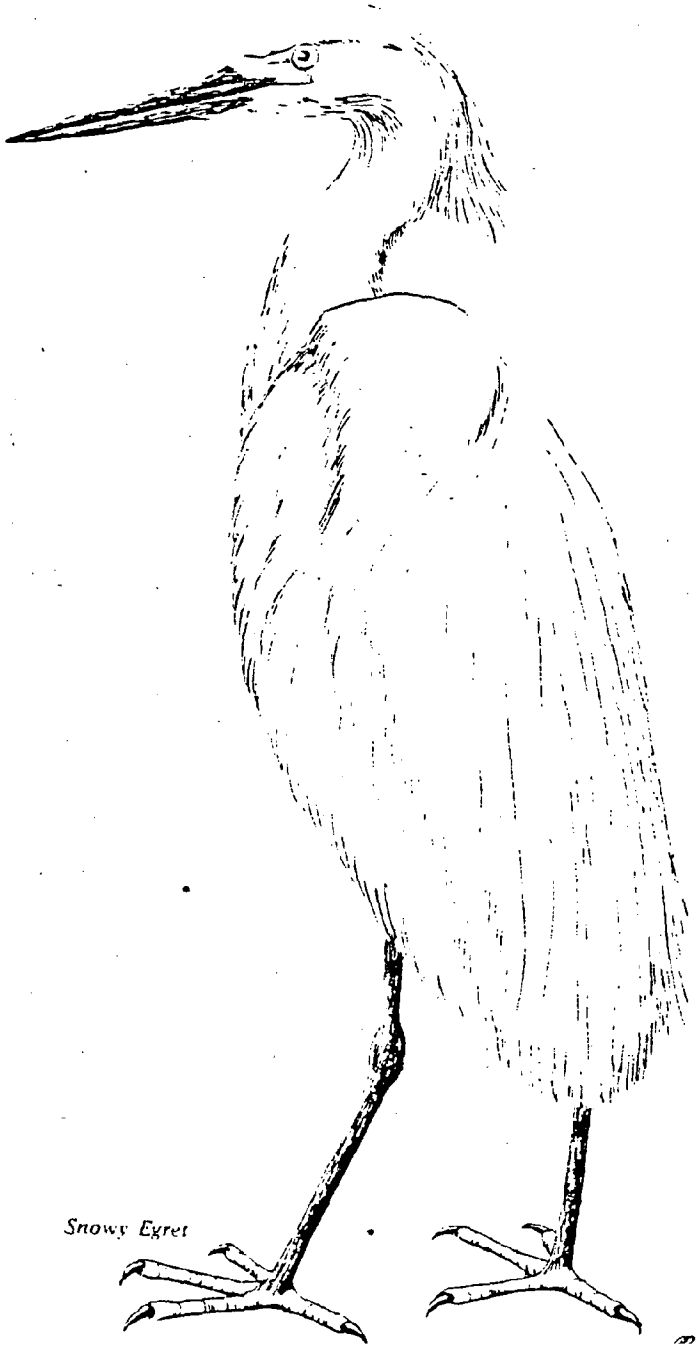
COASTAL AREA MANAGEMENT PROGRAM

COVE AVENUE : LANDUSE DEVELOPMENT ALTERNATIVE 3 MARINE COMMERCIAL / RESIDENTIAL



- Alternative 2: Public Acquisition of Chimmons and Sheffield

Most recent national, state, regional and local plans have called for public acquisition of Chimmons and Sheffield Islands, because of their unique open space value to Long Island Sound. This alternative should be considered even though Federal and State open space funding has been reduced. Innovative open space acquisition techniques such as involvement of the Nature Conservancy and Audobon Society funding, "bargain-sale", and swapping surplus parkland for these islands should be considered.



Snowy Egret