

**PROPOSED**

**CITY OF GROTON  
HARBOR MANAGEMENT PLAN**

**DECEMBER 2006**

The City of Groton Harbor Management Commission

With Assistance From The

Southeastern Connecticut Regional Planning Agency



# CITY OF GROTON HARBOR MANAGEMENT PLAN

## TABLE OF CONTENT

	<u>PAGE</u>
<b>1. INTRODUCTION.....</b>	<b>1</b>
<b>2. PHYSICAL CONDITIONS AND WATERFRONT SETTING.....</b>	<b>2</b>
2.1 General Description and Land Use .....	2
2.2 Channels.....	3
2.3 Anchorages.....	4
2.4 Mooring Areas for Small Craft .....	6
2.5 Marinas and Boat Slips .....	7
2.6A Fish and Bivalve Resources .....	9
2.6B Commercial and Recreational Fish and Shell Fisheries.....	10
2.7 Conservation, Natural Resources and Coastal Resources.....	10
2.8 Areas Subject to High Velocity Waters .....	11
2.9 Areas Subject to Flooding and Erosion.....	11
2.10 Commercial and Industrial Water Dependent Uses .....	12
2.11 Water Quality.....	12
2.12 Recreational Uses.....	15
2.13 Water Dependent Educational Uses.....	16
2.14 Public Access.....	17
<b>3. ISSUES, PROBLEMS AND OPPORTUNITIES.....</b>	<b>27</b>
3.1 General.....	27
3.2 Area A: Groton Bank .....	27
3.3 Area B: Industrial Area .....	28
3.4 Area C: Eastern Point.....	30
3.5 Area D: Pine Island Bay.....	30
3.6 Area E: Baker Cove .....	31
3.7 Area F: Birch Plain Creek.....	32
<b>4. GOALS, OBJECTIVES AND POLICIES .....</b>	<b>33</b>
4.1 General Goals .....	33
4.2 Area A: Groton Bank.....	33
4.3 Area B: Industrial Area.....	34
4.4 Area C: Eastern Point.....	35
4.5 Area D: Pine Island Bay.....	36
4.6 Area E: Baker Cove.....	37
4.7 Area F: Birch Plain Creek .....	38
<b>5. WATER USE PLAN.....</b>	<b>39</b>

**TABLE OF CONTENTS, Continued**

<b>6.</b>	<b>HARBOR MANAGEMENT IMPLEMENTATION &amp; REGULATIONS.....</b>	<b>48</b>
6-1	General Provisions.....	48
6-1.2	Applicability.....	48
6-1.3	Authorities.....	48
6-1.4	Violations.....	48
6-1.5	Water Use Plan.....	48
6-1.6	Harbor Management Fund.....	48
6-1.7	Amendment Procedure.....	48
<b>6-2.</b>	<b>Fees.....</b>	<b>49</b>
<b>6-3.</b>	<b>HARBOR REGULATIONS.....</b>	<b>49</b>
6-3.1	Wake Regulations.....	49
6-3.2	Speed Regulations.....	49
6-3.3	Waterskiing Regulations.....	50
6-3.4	Motor Regulations.....	50
6-3.5	Noise Abatement.....	50
6-3.6	Discharge of Refuse.....	50
6-3.7	Marine Sanitation Devices.....	50
6-3.8	Mooring Allocation/Assignment.....	50
<b>6-4.</b>	<b>TRANSIENT BOATS.....</b>	<b>54</b>
6-4.1	Transient Moorings.....	54
<b>6-5.</b>	<b>DEFINITIONS.....</b>	<b>54</b>
	<b>APPENDIX A: PERMIT AND REGULATORY AUTHORITIES.....</b>	<b>A-1</b>
A-1	General.....	A-1
A-2	Local Regulatory Agencies.....	A-1
A-3	State and Federal Regulatory Agencies.....	A-3
	Federal and State Agencies' Addresses.....	A-11
	<b>APPENDIX B: CITY COUNCIL RESOLUTION OF OCTOBER 1, 1984.....</b>	<b>B-1</b>
	<b>APPENDIX C: CITY OF GROTON HARBOR MANAGEMENT ORDINANCE.....</b>	<b>C-1</b>
	<b>APPENDIX D: PLACEMENT OF FIXED AND FLOATING STRUCTURES.....</b>	<b>D-1</b>

**TABLE OF CONTENTS, Continued**

**LIST OF FIGURES**

<u>Figure</u>	
1-1	....Bathymetry and Topography.....iv
2-1	....Geographic Areas .....18
2-2	....Sketch A.....19
2-3	....Sketch B.....20
2-4	....Sketch C.....21
2-5	....Sketch D.....22
2-6	....Sketch E .....23
2-7	....Sketch F .....24
2-8	....Publicly-Owned Public Access Points.....25
2-9	....Municipal Coastal Program.....26

**TABLE OF CONTENTS, Continued**

5-1	Water Use Plan, Map A, Groton Bank.....40
5-2	Water Use Plan, Map B, Industrial Area.....41
5-3	Water Use Plan, Map C, Eastern Point.....42
5-4	Water Use Plan, Map D, Pine Island Bay .....43
5-5	Water Use Plan, Map E, Baker Cove.....44
5-6	Water Use Plan, Map F, Birch Plain Creek .....45
5-7	Mooring Grid .....46
5-8	Mooring Coordinates .....47

## 1. INTRODUCTION

This Plan has been developed by the City of Groton Harbor Management Commission in accordance with Section 22a-113m of the Connecticut General Statutes. Its purpose is to provide guidance for the management and use of the waters and waterfront of the City for recreational, commercial, industrial and other activities.

This document is divided into two basic parts: First, the Plan itself, Chapters 1 - 5, which provides the background and rationale for the second part, Chapter 6, which implements the Plan and establishes regulations. It is proposed that the Plan be adopted by ordinance by the City Council once the plan has been approved by the Connecticut Department of Environmental Protection and Department of Transportation, as required by statute.

This Plan has been drafted in accordance with a resolution adopted by the City Council of the City of Groton on October 1, 1984. That resolution changed the name of the existing Waterfront Commission to the Harbor Management Commission, and designated that commission to assume all the duties and powers enumerated in the State of Connecticut Harbor Management Act. The resolution has been included as Appendix B to this document.

The resolution also defined the area of jurisdiction of the Commission. This area follows the shoreline from the easterly city boundary at Poquonnock Road; thence southerly along Birch Plain Creek and Baker Cove; thence westerly along Fishers Island Sound; thence northerly along the Thames River; thence easterly to the shore of the Thames River. These two points are marked as points A and B on the map of the City of Groton, Figure 1-1.

One of the key objectives of harbor management planning is to accurately and concisely describe existing problems and identify probable future conflicts relating to the administration and management of municipal waters. Problems specific to both the administration and the physical management of small craft harbors should be considered in light of the needs specific to the recreational boater as well as the commercial waterman. This analysis requires attention to engineering, land use management, water resource management and regulatory control.

Control and regulation within municipal waters are typically shared between federal, state and local government; each level of government with its own predetermined objectives. Because these levels of government are dissimilar, their respective management objectives will often be divergent. This in turn creates uncertainty regarding authority and responsibility over the management of municipal navigable waters. In addition, federal, state and local governments routinely find themselves facing complex decisions with limited information to assist them in these site-specific decisions.

Traditional comprehensive land use planning fails to adequately consider the administrative changes required for the implementation of land use plans beyond the shoreline. And yet the land use controls, adopted through the comprehensive plan process, are that which will allow or disallow urban waterfront activities with little regard for their impact on water surface availability, local maritime industries or the carrying capacity of the local, natural shoreline habitats.

It is the objective of harbor management planning to evaluate the effect of existing, often uncoordinated, regulatory programs (municipal, state and federal government) in light of the unique constraints existing in the specific waterfront, to evaluate potential problems, and to identify local maritime goals and objectives, and then create an integrated management framework designed to accomplish the stated goals and objectives through coordination between local, state and federal government activities.

A Harbor Management Plan is not intended to replace the municipal comprehensive plan. Instead, this plan is intended to offer the necessary guidance for inclusion of the navigable waterways within the existing land use/resource management plans and programs. It is also the objective of this plan to give sufficient guidance in order to allow a greater degree of coordination between the various regulatory agencies active in waterfront areas.

## **2. Physical Conditions and Waterfront Setting**

### **2.1 General Description and Land Use**

The waterfront of the City of Groton is varied both in physical setting and in man-made development. From its northernmost point, it stretches along the east side of the estuary of the Thames River for a distance of about 3.6 miles to Avery Point at the estuary's mouth. This stretch of shorefront is divided roughly in thirds. The northern third (see Sketch A on page 15) is the Thames Street or Groton Bank area. This is the oldest section of the City and contains a good assortment of historically and architecturally interesting buildings as well as several marinas, docks for fishing and charter boats and other water-dependent uses. The winds across the Thames River are predominantly west or southwest and produce rough seas. The water is very deep close to the shore. The main river channel is very close to the shore at this point, and is utilized by large ships and submarines. Given the requirement of commercial and government vessel traffic, the main navigable channel has been and will continue to be maintenance dredged. The Commission will work closely with various agencies and the Harbor Master to ensure that dredging procedures and the resultant spoils comply with approved procedures. The land between Thames Street and the River is narrow and steep.

The second third of the City's Thames River waterfront (Sketch B on page 16) is a highly intensive industrial area containing the facilities of three firms. From north to south, these are the Electric Boat Corporation, which builds nuclear-powered submarines for the U.S. Navy, the Amerada Hess Corporation, which operates a large oil terminal where seagoing tankers are off-loaded, and Pfizer, Inc., a pharmaceutical firm, where tank barges are off-loaded. This stretch of riverfront constitutes the industrial heart of Southeastern Connecticut. This area contains a concentrated economic base of manufacturing employment in southeastern Connecticut. The Electric Boat Corporation uses its waterfront for shipbuilding and ship support. At the Amerada Hess Corporation seagoing tankers are off-loaded, and Pfizer, Inc. Here, also, the land is narrow and steeply sloping, and the main ship channel is close to shore. The water between the channel and the shoreline, while too deep and exposed for easy marina development, is too shallow in many locations for large ships.

The final third of the City's Thames Estuary shorefront (see Sketch C on page 17) from Circle Avenue to Avery Point contains a residential area. This neighborhood also contains a portion of the Shennecossett Golf Course and a waterfront park owned by the City, which is used by the neighboring residents. This parcel contains two masonry piers and can be used for fishing and sightseeing. In addition, this portion of the shorefront contains two recreational facilities, the City-owned Eastern Point Beach, and the Shennecossett Beach Club, a private organization. In the residential area, the shore is rocky. There are a few moorings here for boats, which belong to the property owners. The shoreline is exposed to winds and waves from the southwest. Pfizer, Inc. has recently conveyed a parcel of waterfront land extending from Shore Avenue to the Thames

River and provides approximately 1000 feet of shorefront access. Eastern Point Beach is used principally for swimming but also for fishing and scuba diving during the seasons when the swimming areas are closed. There are no public boat launching facilities in this area. Shennecossett Beach Club is a private club, the principal function of which is water-related sports, principally swimming, but there also is dinghy and board boat sailing off the beach. The rocky shore in this area lends itself to lobstering. There are lobster pots here. Scuba divers also take lobsters. There is also some water skiing and personal watercraft activity. There are two ponds or conservation areas along Shennecossett Road, one on the Beach Club property and one on property belonging to the University of Connecticut. These areas perform important drainage functions, as well as provide habitat for wildlife, notably shore birds. At the very southern end of the Thames Estuary is the Avery Point Branch of the University of Connecticut. At the University of Connecticut, the shoreline included in the map entitled Eastern Point Area is all open to the public. Much use is made of it by local residents for walking, jogging, and simply looking at the view.

Sketch D on page 18 illustrates Pine Island Bay to the east of Avery Point. Besides the waterfront and pier of the University of Connecticut, the shoreline here contains major boating facilities: the Shennecossett Yacht Club, Pine Island Marina, and the state-owned Bayberry Lane boat launch area. Pine Island Bay contains the most important mooring area in the City, which will be described in more detail in later sections of this Plan. This area is the most active in the City with respect to recreational boating, and also supports the waterfront facilities of the University of Connecticut. At the university property are docked boats of Project Oceanology which are used for educational purposes by the school systems of the surrounding towns. The University of Connecticut has fair and equitable access to the waterfront and has facilities sufficient to their needs. Also kept there are the smaller state research boats and the boats of the Coast Guard Research and Development Center. Pine Island Bay is subject to wave action from the south and southwest.

Sketch E on page 19 shows the Baker Cove area. The Cove forms the eastern boundary of the City. On its east bank is the state-owned Groton-New London Airport. The Cove's western boundary is primarily residential in nature with a sprinkling of small water-related commercial activities. At the Cove's northern end is located the property of the Groton Elks Club, which contains a marina for small boats. The boats must be small because of the shallowness which extends to the Thomas Road Bridge. The Cove is very shallow and is thus only navigable by small boats. However, the low marshy shores have much natural beauty and constitute an important natural resource area. There is a Public Access area in the subdivision on Jupiter Point Road. To the north of the railroad bridge and the Thomas Road Bridge, the Cove narrows to become Birch Plain Creek. The Creek borders a very important City-owned conservation area of salt marshes. This is a fragile and important environmental area. Access by land is available on four properties: The City owned Birch Plain Creek Conservation Area, the City-owned open space area at the end of Paul Revere Road and Nathan Hale Road, West Side Junior High School, and the Town-owned open space north of West Side Junior High School. All of these properties are utilized as passive open space areas and for teaching. The private properties along the creek all contain salt marsh areas. These salt marshes continue all the way to Poquonnock Road as shown on Sketch F on page 20. Sketch F also shows the multi-family housing areas which border the Cove, and the property of the West Side Middle School. The salt marshes on this property constitute an important teaching resource.

## **2.2 Channels**

The main New London Harbor runs to the west of the City's waterfront, as shown on Sketches A, B, and C. It has a project depth of forty feet as far north as the property of the Electric Boat Corporation, about two and one-half miles north of the southern extremity of the City at Avery Point. In addition, as shown on Sketch D, Pine Island Bay, there exists the passageway between

the special anchorage areas. The entrance to the bay is marked with federally maintained buoys. Sketch E shows the existing natural channel in Baker Cove.

### **2.3 Anchorages**

Within the City's waters, there are no major anchorages as distinct from mooring areas for small boats. Nautical Chart 13213, published by the National Oceanic and Atmospheric Administration, shows three general anchorage areas to the west of the New London Harbor. That channel is located in too close proximity to the Groton shore of the Thames River to permit anchoring by large vessels adjacent to the City's waterfront. The basis for navigating and anchoring in Pine Island Bay (the cove north of Pine Island) in the City of Groton is contained in the U. S. Coast Pilot 2 (Cape Cod to Sandy Hook). For reference these regulations and piloting information are quoted herein.

#### **Part 110 - Anchorage Regulations**

- (89) **Section 110.1 General.** (a) The areas described in Subpart of this part are designated as special anchorage areas pursuant to the authority contained in an act amending laws for preventing collisions of vessels approved April 22, 1940 (54 Stat. 150); Article 11 of section 1 of the Act of June 7, 1897, as amended (30 Stat. 98; 33 U.S.C.180), Rule 9 of section 1 of the Act of February 8, 1895, as amended (28 Stat. 647; 33 U.S.C. 258), and Rule Numbered 13 of section 4233 of the Revised Statutes as amended (33 U.S.C. 322). Vessels not more than 65 feet in length, when at anchor in any special anchorage area, shall not be required to carry or exhibit the white anchor lights required by the Navigation Rules.
- (90) (b) The anchorage grounds for vessels described in Subpart of this part are established and the rules and regulations in relation thereto adopted, pursuant to the authority contained in section 7 of the Act of March 4, 1915, as amended (38 Stat. 1053; 33 U.S.C. 471).
- (91) (c) All bearings in the part are referred to true meridian.
- (92) (d) Geographic coordinates expressed in terms of latitude or longitude, or both, are not intended for plotting on maps or charts whose referenced horizontal datum is the North American Datum of 1983 (NAD 83), unless such geographic coordinates are expressly labeled NAD 83. Geographic coordinates without the NAD 83 reference may be plotted on maps or charts referenced to NAD 83 only after application of the appropriate corrections that are published on the particular map or chart being used.
- (93) **Section 110.1a Anchorages under Ports and Waterways Safety Act.** (a) The anchorages listed in this section are regulated under the Ports and Waterways Safety Act (33 U.S.C. 1221 et seq.):
- (94) (1) Section 110.155 Port of new York
- (95) (b) Any person who violates any regulation issued under the Ports and Waterways Safety Act
- (96) (1) Is liable to a civil penalty, not to exceed \$25,000 for each violation;
- (97) (2) If the violation is willful, is fined not more than \$50,000 for each violation or imprisoned for not more than five years, or both.

- (42) **Pine Island Channel**, northeastward of New London Ledge Light, between Pine Island and Black Ledge, has a rocky and very broken bottom on which the least found depth is 10 feet. It is used some by local vessels between New London Harbor and Fishers Island Sound, but should be avoided by any vessel drawing more than 10 feet.
- (43) **Anchorage**.-General and naval anchorages are in the approaches to, and in, New London Harbor. (See **110.1 and 110.147**, chapter 2, for limits and regulations.) Special anchorages are in Greens Harbor and in the vicinity of the U.S. Coast Guard Academy. (See **110.1 and 110.52**, chapter 2, for limits and regulations.)
- (291) The cove indenting the mainland northward of Pine Island and eastward of **Avery Point**, is entered between Avery Point and westward of Pine Island. The entrance to the cove is marked by two buoys just inside and eastward of Avery Point. Depths shoal from about 10 feet in the entrance to about 1 foot at the head of the cove. A breakwater, marked at its end by a private light, extends southeasterly from the east end of Avery Point. A yacht club, marina, and State launching ramp are in the cove. An unmarked rock awash is about 500 yards 060° from the former lighthouse tower at Avery Point. Berths, guest moorings, gasoline, electricity, water, ice, marine supplies, and a 14-ton mobile hoist are available at the marina; hull and engine repairs can be made. In July 1981, a reported depth of 5 feet could be carried to the marina.
- (292) Special purpose buoys maintained by the City of Groton show a **speed limit** of 5 m.p.h. in the area.
- (293) A **special anchorage** is in the cove. (See **110.1 and 110.51**, chapter 2, for limits and regulations.)
- (182) **Section 110.51 Groton, Conn.** The waters between an un-named cove and Pine Island. (a) Beginning at a point on the shoreline of Avery Point at
- (183) 41°19'01.4"N., 72°03'42.8"W.; thence to
- (184) 41°19'02.5"N., 72°03'36.2"W.; thence to
- (185) 41°18'56.2"N., 72°03'34.2"W.; thence to
- (186) 41°19'02.5"N., 72°03'19.2"W.; and thence to Jupiter Point at
- (187) 41°19'04.4"N., 72°03'19.7"W.
- (188) (b) Beginning at a point on the shoreline of Pine Island at
- (189) 41°18'47.1"N., 72°03'36.8"W.; to
- (190) 41°18'54.1"N., 72°03'35.4"W.; to
- (191) 41°19'01.2"N., 72°03'19.3"W.; to
- (192) 41°18'54.0"N., 72°03'17.5"W.

(193) NOTE: The areas designated by (a) and (b) of this section are principally for vessels used for recreational purposes. Vessels shall be anchored so that no part of the vessel obstructs the 135 foot wide channel.\* Temporary floats or buoys for marking the location of the anchor of a vessel at anchor may be used. Fixed mooring piles or stakes are prohibited.

\* The actual width of the fairway varies from 137' to 112'.

These special anchorage areas are delineated on NOAA Chart No. 13212 and 13213, Approaches to New London Harbor. They were established in 1970 and revised in June 1998 and are the result of a realization of the growing problem of a great increase of boat owners who wanted to moor in the bay. In addition, the boat launching ramp, established in 1957, showed an increase in use. The property owners abutting the bay at Jupiter Point also had to be accommodated in the mooring area if they were boat owners.

In 1972 the Shennecossett Yacht Club and Pine Island Marina established a grid layout for the boats in the bay. Generally this divided the west half of the bay to Shennecossett Yacht Club members, the east central part to Pine Island Marina and the east edge of the bay to the general public and Jupiter Point homeowners. This grid, for moorings and cooperating interests implemented a more formal anchorage in the bay than had been in effect for some time.

The present system utilizes to a maximum the limited usable anchorage area of the bay. Moorings and upland support are provided to people who would not have access to the cove otherwise. The public is accommodated with their choice of a mooring through the Pine Island Marina, Shennecossett Yacht Club, or on their own with access from the boat launch. There is a good balance among the desire of individuals to have moorings through the Pine Island Marina, Shennecossett Yacht Club, or on their own. Pine Island Marina maintains its moorings and ground tackle. The Shennecossett Yacht Club provides recommended mooring and ground tackle specifications for its members on their individual moorings.

#### **2.4 Mooring Areas for Small Craft**

The most important mooring area in the City is in Pine Island Bay. There are in existence two gridded areas, one to the north of the Pine Island Bay Channel and one to the south of the fairway. Under the direction of the Harbor Master, the Shennecossett Yacht Club and Pine Island Marina have maintained the mooring grid in the western and east central parts of the bay respectively. The Shennecossett Yacht Club provides launch services and dinghy storage for its members in the bay and Pine Island Marina operates approximately 72 commercial moorings.

**Table 1. NUMBER OF MOORINGS IN PINE ISLAND BAY AS OF 2005**

Shennecossett Yacht Club	39	17.1%
Pine Island Marina	70	30.7%
General Public	<u>119</u>	<u>52.2%</u>
<b>Total</b>	<b>228</b>	<b>100.0%</b>

Data on the number of existing moorings and their location in Pine Island Bay is based on: harbor masters' information, the records of the Shennecossett Yacht Club and Pine Island Marina and by field survey by the Harbor Management Commission. Pine Island Marina maintains mooring tackle and supplies launch service, lift service, repair service, and pump out service to its

customers and the general public. Shennecossett Yacht Club provides launch service to its members and transient boaters at a nominal cost. The yacht club also provides lift service to members and sells fuel and provides pump out service to the public.

Transients can be accommodated in Pine Island Bay. Both Pine Island Marina (PIM) and the Shennecossett Yacht Club (SYC), through their respective dock masters, provide mooring facilities for transient boaters by utilizing moorings that are not occupied by the assigned vessels for short periods. This sharing of facilities with transient boaters provides a more effective use of the limited resources available in Pine Island Bay. There is no fee for transient use of Shennecossett Yacht Club moorings; however, Pine Island Marina does charge a nightly fee. The Harbormaster will not allow use of assigned General Public moorings for transients.

There are also small numbers of scattered moorings in the New London Harbor, between the channel and the shoreline. Concentrations of these are located off of Grove Avenue, north of the Route I-95 Bridge, off Thames Street, and in the southern part of the City just north of Eastern Point. Generally the moorings in areas other than Pine Island Bay are owned by individuals, many of whom are waterfront property owners, who gain access to these moorings from their own shoreline.

## **2.5 Marinas and Boat Slips**

There are three general locations for the marinas which contain boat slips. These are the Thames Street area, Baker Cove and Pine Island Bay. The marinas along Thames Street are indicated on Sketch A, on page 15, and the numbers of slips in this area are given in Table 2 below.

**TABLE 2: BOAT SLIPS IN THE THAMES STREET AREA**

### **a. Private Boat Slips as of July 1998. For locations, see Sketch A, page 15.**

<u>Symbol</u>	<u>Description</u>	<u>Location</u>	<u>Slips</u>
P1	Fixed Dock	85 Thames Street	2
P2	Fixed Dock	131 Thames Street	2
P3	Fixed Dock	137 Thames Street	1
P4	Floating Dock	189 Thames Street	0
P5	Floating Dock	221 Thames Street	0
P6	Fixed Dock	251-253 Thames Street	2
P7	Fixed Dock	265-267 Thames Street	2
P8	Floating Dock	273-279 Thames Street	1

These docks would generally accommodate two (2) boats apiece, however, the majority of them are in poor condition and they would only accommodate a total of about 6 boats.

**b. Commercial Boat Slips**

<u>Description</u>	<u>Location No.</u>	<u>No. of Slips</u>
Mohawk Northeast	A	5
Groton Oil Marina	C	15
Groton Marine Dock	D	22
Carolyn Green Pier	E	6
Hell-Cat Dock	G	2
On-the-Thames Boatel	H	15
Morgan and White Wharf	I	2
Ed Costa Pier	J	6
J. Garbo Seafood Operation (proposed)	K	3
<b>TOTAL EXISTING SLIPS</b>		<b>76</b>

**TOTAL EXISTING** 76

**TABLE 3: BOAT SLIPS IN PINE ISLAND BAY**

Avery Point	approximately 19
Shennecossett Yacht Club	192
Walsh's Marina	17
Pine Island Marina	115
Private	approximately 20
<b>TOTAL EXISTING SLIPS</b>	<b>363</b>

The shoreline in the Thames Street area is exposed to wave action when the wind is from the west or southwest. There is also some effect from wakes from vessels transiting New London Harbor and submarines moving by within close proximity to the shore. Thus, the area is less than ideal for marina use at the present time. Proposals for fixed docks or breakwaters to solve this problem have been discussed, but there are no known plans for harbor protection improvements at this time.

Past proposals for the former Peter George/Garbo Seafood Operation properties have indicated that the properties and areas encompassed indicate that as many as approximately 140 slips were feasible. The possibility exists that in the future these areas may be developed in this manner.

Pine Island Bay contains three marina-type facilities. The Shennecossett Yacht Club has recently expanded their facility and now offers approximately 192 slips for its members. The Shennecossett Yacht Club provides upland storage for approximately 70 dinghies. The Walsh Marina provides 17 slips for boats. At Pine Island Marina, there are 36 slips for boats 28 feet or larger, plus 79 more for smaller boats. Pine Island Marina provides floating storage for approximately 45 canoes, dinghies, and small craft. The partially constructed Jacobsen Marina consists of approximately 95 feet of fixed pier and 60 feet of floating dock. The present owner has no plans to operate a marina at this site. In addition, the University of Connecticut owns and operates docks which extend eastward from Avery Point into Pine Island Bay which are utilized principally by Project Oceanology's vessels, and by the Coast Guard Research and Development Center. The Avery Point site also supports two DEP enforcement boats in the summer.

These latter two institutions are described in more detail in the section of this plan on water-dependent educational uses.

#### **TABLE 4: BOAT SLIPS IN BAKER COVE**

Groton Elk's Club Marina	70 slips
Chapman's Boatyard	19 Slips 12 Pilings
G&S Fish Market	6 Slips
Private	approximately 30 Slips

Baker Cove contains two marina-type facilities and one Commercial Fishing facility. The Groton Elk's Club Marina has 70 member occupied slips which consists of small boats due to the low water depths in the channel. Chapman's Boatyard is a marina-type facility which has been historically in existence since the early 1930's with out any current permit activity. There are plans to obtain permitting to change the dock configuration in the future. G&S Fisheries is a permitted commercial fishing facility, Permit Number SD-89-126, with six slips. There are approximately thirty private docks between the above mentioned facilities.

#### **2.6A Fish and Bivalve Resources**

The area within the jurisdiction of the City of Groton Harbor Management Commission provides an excellent habitat for a wide range of shellfish. It is an important source of adult shellfish for recreational and commercial activity, as well as breeding stock for populations of hard and soft clams, oysters, and other bivalves. These important resources require careful consideration in the harbor management process. According to the City's Municipal Coastal Program, the only shellfish found in significant concentrations in the coastal waters surrounding the City of Groton is the hard-shell clam, or quahog (*Mercenaria mercenaria*). Another shellfish which may be found in smaller numbers is the eastern oyster (*Crassostrea virginica*). The hard-shell clam is a bivalve which lives close to the surface in sandy or muddy substrata, while the eastern oyster requires a hard substrate for attachment. Shellfish concentration area in Groton's coastal waters include a bed of hard-shell clams north of the Gold Star Memorial Bridge, and a bed of eastern oysters which is located primarily on the New London side of the surface in sandy or muddy substrata, while the eastern oyster requires a hard substrate for attachment. Other beds of hard-shell clams in the New London Harbor are located at the northern end of the Electric Boat property, adjacent to the area between Burgess Place and Shennecossett Road, at the southern end of the Pfizer property, and surrounding Hobs Island. All of Baker Cove north to Thomas Road supports concentrations of hard-shell clams, as does the area north of Pine Island between Avery Point and Jupiter Point. In addition to hard-shell clams, scallops exist in Baker Cove, and mussels are found at Pine Island. Blue crabs are found in Baker Cove and Birch Plain Creek. Also, the City's Municipal Coastal Program cited previously, reports that benthic organisms found in the New London Harbor during sampling by the U.S. Coast Guard Academy include the following shellfish species: quahog, surf clam, razor clam, whelk, moon snail, mud snail, oyster, hermit crab, mud crab, rock crab, and barnacles.

Other benthic organisms found in the New London Harbor include various polychaetes, gastropods, isopods, amphipods, epibenthic shrimp, decapods, and echinoderms.

The lower New London Harbor is an important spawning, nursery and adult feeding habitat for fish and also as a migratory pathway for anadromous species such as alewife, blueback herring, rainbow smelt, Atlantic salmon, and American shad. It is a feeding area for long range coastal migrants such as menhaden, bluefish, and mackerel and seasonal migrants as well. Almost every

month of the year there is significant spawning activity by one or more species known to occur here.

Many sources of fisheries information have indicated the presence of the following finfish species in the Thames, many of which are also present in other city waters: porgy, weakfish, winter flounder, summer flounder, windowpane flounder, rainbow smelt, bay anchovy, American eel, fourspine stickleback, grubby, hogchoker, Atlantic silverdaice, seaboard goby, naked goby, tomcod, mummichug, striped killifish, striped searobin, northern searobin, northern pipefish, oyster toadfish, cunner, longhorn sculpin, hake (species unknown), smelt, sand shark, skate, tautog, bluefish, alewife, blueback herring and American shad.

The New London Harbor basin is the subject of an anadromous fish restoration plan and is one of the most productive habitats for winter flounder in the entire state of Connecticut.

### **2.6B Commercial and Recreational Fish and Shell Fisheries**

Recreational boating and fishing are an extremely popular activity in all the coastal waters of the City of Groton. Where shorefront access is available, shorebased fishermen are active. Fishermen in small boats are seen in all of the city's waters. Several fishing charter operations also exist in the City.

The New London Harbor and the area south of Shennecossett Beach, Avery Point and Pine Island Bay support both a recreational and a commercial lobster fishery. There are at least ten commercial lobster operations which set pots in the lower New London Harbor, as well as other water of the City of Groton. Numerous recreational fishers set pots and dive for lobsters as well.

Due to poor water quality, the waters of the City of Groton are either prohibited or restricted to recreational and commercial bivalve shellfishing. Some commercial clamming and oystering occurs relaying the shellfish to other waters for depuration. One exception is Baker Cove, where blue crabs are still harvested.

Sketch D on page 18 shows the two shellfish beds in Pine Island Bay. The Spicer family shellfish beds are 510 feet wide extending westerly from a line running from the southeast corner of the state boat launch property to a point on the east end of Pine Island. The William C. Spicer Oyster Beds are of an indeterminate area north of Pine Island. The vagueness of the description prevents an accurate portrayal of this bed. The beds were originally granted by the Town of Groton Oyster Commission to the Spicer family members and Clyde T. Annis. Some of these were outright grants and some were leases. The HMC will accept the grants recorded in the Groton land records at face value until a court directs otherwise. The mooring field assigned to Pine Island Marina is entirely on Spicer family shellfish beds. The owner of Pine Island Marina does not lease or possess any shellfish beds in Pine Island Bay. The mooring field assigned to the Shennecossett Yacht Club is on areas of the bay not assigned to anyone as shellfish beds with the exception of two moorings on the Spicer family shellfish beds. This has been agreed to by the owner of the shellfish beds. Most general public moorings are on areas of the bay not assigned to anyone as shellfish beds with the exception of several on the Spicer family shellfish beds.

### **2.7 Conservation, Natural Resources and Coastal Resources**

These are shown on Map 4 in the City's Municipal Coastal Program, a copy of which is shown on page , shows the various areas and the Coastal Resources situated on them. The map shows that the Thames River shoreline is considered Developed Shorefront from the northern boundary of the City as far south as the southern end of the Pfizer industrial property. From there around to the

south and east of Jupiter Point is considered rocky shorefront and modified bluffs and escarpments with beaches and dunes at the two beaches in the city. The shoreline of Baker Cove consists of alternating Tidal wetlands and developed shore front. The shoreline of Birch Plain Creek consists of brackish wetlands. Pine Island is primarily rocky shorefront with beaches and dunes on the eastern end of the island. As mentioned above, these wetland areas are significant, not only for their innate ecological value, but as educational, recreational and esthetic resources.

Definitions are as follows:

- mE modified Bluffs and Escarpments: Bluffs and escarpments which have been temporarily stabilized by erosion control structures (revetment, bulkhead or seawall) positioned seaward of the marine cliff or escarpment.
- B Beaches and Dunes: Moderately sloping shores composed of water worked sand, gravel or cobble deposits (beach) and when present, wind deposited sands (dunes or sand flats). The beach (proper) is positioned between mean low water and coastal bluffs/escarpments or dunes or vegetation. The map designations include all areas of sandy beach fill. Dunes and sand flats positioned landward and elevated above the beach, support coastal grasslands dominated by beach grass (*Ammophila bravigulata*).
- R Rocky Shorefronts: Shorefront composed of bedrock or armored with a dense aggregate of boulder and stone, Includes rugged nearly vertical rock cliffs or gently seaward sloping rock and boundary lands.
- D Developed Shorefront: Port and harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of the nature physiographic features or systems.
- T Regulated Tidal Wetlands: Official state designated and regulated tidal wetlands located within the coastal boundary. The areas depicted on this map shall in no way supersede the official state regulated tidal wetland maps at the scale of 1:2400.

## **2.8 Area Subject to High Velocity Waters**

These are indicated on the City's Flood Insurance Rate Map, published by the Federal Emergency Management Agency. That map is not included in this Plan, but should be consulted on any specific site. To summarize, virtually the entire shore line of the City is indicated to be subject to high velocity waters. However, in the southern part of the municipality, especially in the Jupiter Point area, the land elevation is the lowest, and high velocity zones (V Zones) † cover the largest land area. Knowledge of these areas is vital to the planning of any waterfront development proposal.

† Areas of 100 year coastal flood with velocity (wave action). These are as indicated on Federal Emergency Management agency Flood Insurance Rate Maps numbers 090126 0001 B and 090126 0002D.

## **2.9 Area Subject to Flooding and Erosion**

Areas subject to flooding in municipalities are delineated on Flood Insurance Rate Maps (in the City, Community-Panel Numbers 090126 0001 B and 090126 0002 D) created by the Federal Emergency Management Agency (FEMA). In coastal areas such as the City,

these areas are also known as "coastal flood hazard areas" and are made up of those land areas inundated during coastal storm events or subject to erosion induced by such events. In general, these lands include all areas designated as within A-zones and V-zones by FEMA. A-zones are subject to still-water flooding during so called "100-year flood events." During these 100-year events, V-zones are subject to direct action by waves three feet or more in height. Any proposals for development in such areas should take flooding potential into consideration and be built to FEMA standards.

## **2.10 Commercial and Industrial Water-Dependent Uses**

"Water-dependent uses" means those uses and facilities which require direct access to, or location in, marine or tidal waters and which therefore cannot be located inland, including but not limited to: Marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyards and boat building facilities, water-based recreational uses, navigation aides, basins and channels, industrial uses dependent upon water-borne transportation or requiring large volumes of cooling or process water which cannot reasonably be located or operated at an inland site and uses which provide general public access to marine or tidal waters.

In the Thames Street area, as shown on Sketch A, page 15, are the following important water-dependent commercial uses:

- A Whaling City Dredge and Dock Corporation a Division of Mohawk Northeast Inc.
- B Ken Streeter Boat Launch
- C Groton Oil Co. Marina
- D Groton Marine Dock
- E Carolyn Green Pier
- F Seabird Enterprises (proposed ferry landing)
- G Hell-Cat Dock
- H On-the-Thames Boatel
- I Morgan & White Wharf
- J Ed Costa Pier
- K J. Garbo Seafood Operations

Sketch B on page 16 shows the three major industrial entities of the City, which are all also water-dependent. These are, from north to south, the shipyard of the Electric Boat Corporation, the oil terminal of the Amerada Hess Corporation, where ocean-going tankers and tanker barges are off-loaded, and the chemical plant of Pfizer, Inc., which also receives large deliveries of oil and uses large amounts of water from the Thames River to cool its on site power plant. Other water-dependent commercial uses are Pine Island Marina (Sketch D on page 18), and G & S Fisheries, and other small boatyards, all shown on Sketch E on page 19.

## **2.11 Water Quality \*\*\***

The Thames River drains 1478 m<sup>2</sup>, in Connecticut and portions of Massachusetts and Rhode Island. Parts of the Thames River are heavily commercialized and industrialized. There is significant waterborne traffic at marine terminals located as far North as Allyn Point, approximately 5 miles above the Gold Star Bridge.

Pollution impacts on water quality can be classified into point (easy to identify i.e. coming from a pipe or a distinct discharge point) and nonpoint (hard to identify and control) discharge sources.

Several of the largest single point sources of pollutants in Connecticut discharge into the New London Harbor. Point discharges in the Thames River include industrial, commercial and wastewater treatment discharges. Pfizer Pharmaceutical, Hess Oil, Electric Boat, Dow Chemical, the Naval Submarine Base, Connecticut Light and Power are among the sources of leachate and wastewater discharges. Additionally, there are four municipal and one state owned wastewater treatment facilities that discharge directly into the Thames as well as numerous wastewater treatment facilities in the upper river tributaries, including, the Norwich Wastewater Treatment facility on the Yantic River which is a major contributor of effluent.

Nonpoint discharge sources in the Thames River and other waters of the City of Groton include contaminated groundwater, fertilizer runoff, stormwater runoff, runoff from marinas, farms, construction, and paved surfaces.

Also, there are problems from such sources as parking lot drains, boating and other shorefront activities. Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. Water washing over the land –whether from rain, car washing or the watering of crops and lawns –picks up an array of contaminants, including oil, grease and sediment from roadways, agricultural chemicals from lawns, and nutrients and toxic materials from urban and suburban areas including bacteria from livestock, pet wastes, and faulty septic systems.. This runoff deposits the pollutants into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. Over-fertilization of estuaries and bays can lead to massive algal blooms, the decay of which can create odors and rob the waters of life-sustaining oxygen. Sand and dirt usually ends up in stream beds, bays, or shallow coastal areas, where it can alter stream flow and decrease the availability of healthy aquatic habitat. Trash is without a doubt the simplest type of pollution to understand. It interferes with enjoyment of our water resources, and many types can be health threat to wildlife.

#### Stormwater Management:

Shoreline development and marina operations are two areas that can contribute to water quality problems. Shoreline development can cause stormwater, nonpoint source and point source contributions. On October 11, 2002, the CT DEP, Bureau of Water Management issued a Notice of a Public Hearing under Section 22a-430b of the Connecticut General Statutes for the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4). The City of Groton has implemented Small MS 4 Stormwater Mangement Plan to identify potential sources of discharges and eliminate or mitigate their effects. The Plan addresses the following areas:

Public participation/Involvement

Public Education and Outreach

Illicit Discharge Detection and Elimination

Pollution Prevention/Good Housekeeping

Construction Site Runoff Control

Post-Construction Runoff Control

The City of Groton has taken actions to prevent discharges into the New London Harbor and surrounding waters. Periodically, the streets are cleaned to remove debris and sand that could end up in the harbor and contribute to the contamination of the harbor. Construction site plans are reviewed to consider potential water quality impact. Periodic site inspections are performed for enforcement of control measures. Storm drains that discharge to the harbor are labeled and sampled. Annual water testing is conducted to evaluate the measures taken for effectiveness and to determine if additional measures should be implemented.

#### Clean Marinas:

Certified Connecticut Clean Marinas are recognized by the DEP for their voluntary efforts to operate at standards above and beyond regulatory compliance. CT Clean Marinas have taken great strides to implement practices which minimize the pollution from mechanical activities, painting and fiberglass repair, hauling and storing boats, fueling, facility management, emergency planning and boater education. Shennecossett Yacht Club was awarded their Clean Marina certification on May 31, 2004. Pine Island Marina is currently working to become a Certified Clean Marina.

#### No Discharge Zones:

A No Discharge Area (NDA) designation, per Section 312 of the Clean Water Act, prohibits discharge of untreated and partially treated boat sewage from Type I and Type II Marine Sanitation Devices (MSDs) within its boundaries. Eliminating the release of sewage from boats, both treated and untreated, will result in reductions of man-made nutrient loading and exposure to bacterial pathogens in swimming areas, shellfish beds and other environmentally sensitive aquatic habitats. At present, the discharge from boats of untreated sewage is prohibited. If a No Discharge Area is established, the discharge from boats of treated as well as untreated sewage is prohibited within the designated area. Instead, boaters will be required to use pumpout facilities or pumpout boats that serve the area. The areas from the Rhode Island Border to Hoadley Point in Guilford, including the Thames River from Norwich to New London are designated as a No Discharge Area.

The following pumpout facilities are located within the jurisdiction of this Harbor Management Plan:

Pine Island Marina  
Shennecossett Yacht Club

#### Coastal Water Classification and Use:

Virtually the entire waterfront of the City, with the exception of Baker Cove, Pine Island Bay and Eastern Point is classified as SC with a goal of SB by the Connecticut Department of Environmental Protection. Baker Cove, Pine Land Bay and Eastern Point are classified as SB with a goal of SA.

CLASS SA DESIGNATED USES

These surface waters are designated for: habitat for marine fish, other aquatic life and wildlife; shellfish harvesting for direct human consumption; recreation; industrial water supply; and navigation.

#### CLASS SB DESIGNATED USES

These waters are designated for: habitat for marine fish, other aquatic life and wildlife; commercial shellfish harvesting; recreation; industrial water supply; and navigation.

#### CLASS SC

Class SC water quality results from conditions that are usually correctable through implementation of established water quality management programs to control point and nonpoint sources. Present surface water quality conditions frequently preclude the attainment of one or more designated uses for Class SB waters or one or more Criteria for Class SB waters are not being consistently achieved. Class SC waters may be suitable for certain fish and wildlife habitat, certain recreational activities, certain aquaculture operations, industrial use and navigation.

The Harbor Management Commission very strongly supports the goals of improving water quality.

#### 2.12 Recreational Uses

In the Thames Street area, there is informal swimming although the Commission discourages swimming on SC waters. There are picnic tables on the privately-owned abandoned abutment for the former Thames River Bridge, located just south of the railroad bridge

The southern part of the City contains the following:

- a. **Shennecossett Beach Club:** This is a private club. Activities are swimming, and also, as a secondary activity, sailing off the beach with windsurfers and board boats.
- b. **Eastern Point Beach:** This City facility is used for swimming. There is also much scuba diving activity at this beach, principally in the off-season.
- c. **UConn Avery Point Campus:** This short beach on the property of the University of Connecticut at Avery Point is adjacent to the Shennecossett Beach Club. It is used by university personnel and invitees. There are walks and places for jogging and parking on the campus of the University of Connecticut at Avery Point. The facilities at the university are available to the general public.
- d. **Baker Cove Subdivision Overlook:** The Baker Cove Subdivision Overlook includes a public path from Shennecossett Road to the waterfront at Baker Cove. The site's waterfront offers views of a tidal marsh and its wildlife across the cove and Pine Island Bay to the south. Aircraft landing and departing from nearby Groton-New London Airport can also be seen. The 2-vehicle "parking lot" is a small roadside pull-off area immediately on your left as you enter the subdivision access road. A gravel access path leads to the overlook area. It begins just beyond the parking lot and turns to grass. Follow the grassy area and keep the large white fence to your right to reach the overlook. A bench for the public is to be provided at the end of the path.
- e. **Bayberry Lane State Boat Launch:** Located between Avery Point and Jupiter Point, this site offers large and small boat launching, trailer parking and scenic views of Pine Island and

Bushy Point. Floating access pier available at this site. Public parking provided. To help you reach Bayberry Lane State Boat Launch, some routes leading to this site are posted with boat launch symbol signs.

- f. **Birch Plain Creek Park:** This salt marsh estuarine system lies along Birch Plain Creek and offers an excellent habitat for a variety of animals. A gravel parking lot is provided and there are nice walking trails along the creek
- g. **Fort Street Landing:** This parcel, located on Thames Street at the foot of Fort Street, was once used as a landing for Fort Griswold. Today it offers views of the New London Harbor and downtown New London's waterfront. There are benches and a grass area from which one can view submarines and commercial and recreational boats as they travel the Thames River. No parking provided.
- h. **Pine Island Bay and Baker Cove:** In Pine Island Bay there is swimming off of moored boats and in front of residences. At Jupiter Point, there is a small private beach used by residents for swimming. Swimming from this beach does not conflict with any other uses, although other uses may conflict with swimming in as much as they reduce water quality and pose a safety threat. Many residents also swim in front of their houses in both Pine Island Bay and Baker Cove. Bird watching is popular in these two areas as well.

Baker Cove flanks the eastern side of Jupiter Point Peninsula. It is used by different people for a number of different, but often conflicting, purposes. It is transited by boaters who dock their boats in marinas accessed from Shennecossett Road as well as boaters wishing to access Bluff Point State Park and the Poquonnock River.

### 2.13 Water-Dependent Educational Uses

The following are located on the campus at the Avery Point Branch of the University of Connecticut:

- a. **The Marine Sciences Institute:** This is the headquarters of the university's Department of Marine Science and Coastal Studies program.
- b. **The Master's Program in Ocean Engineering:** This program is managed by the university's Department of Marine Science.
- c. **The Sea Grant Cooperative Extension Service:** This organization is funded through both the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce and the state.
- d. **National Undersea Research Center (NURC):** This program is funded by NOAA through the university.
- e. **Project Oceanology:** This program described above has its base here. The program operates two large and several smaller boats.
- f. **The U.S. Coast Guard Research and Development Center:** The Coast Guard R&DC provides engineering and support activities for the US Coast Guard in water operations.

In addition, the Avery Point campus contains a branch of the University of Connecticut. Enrollment is approximately 600 day students. There are also evening courses, held by the

university. The University of Connecticut has constructed a large educational building on the Avery Point campus to facilitate marine research and teaching activities.

## **2.14 Public Access**

In the southern part of the City, as shown in Fig. 2-9 on page 22, the following facilities are shown:

- a. **City Waterfront Property and Fishing Pier:** The property contains two small stone piers, used in connection with the former hotel. These are used for fishing by the public on an informal basis. (Location 11)
- b. **The "Concrete Beach":** This consists of a concrete ramp which extends for about 100 yards along the waterfront at Shore Avenue and Central Avenue. It is City owned, and unused at the present time. It was constructed to protect Shore Avenue from storm wave impact. The ramp appears too steep for easy launching of boats from trailers but might be used for dinghy storage and launching. (Location 3)
- c. **Eastern Point Beach:** This beach is open for swimming typically from Memorial Day weekend until Labor Day Weekend with life guards on duty. but in the non-swimming times of the year, it is open to the public for walking, passive recreation, fishing, and scuba diving. There is more than a beach on this property. There are sections of rocky shoreline which are attractive for these kinds of activities. (Location 4)
- d. **University of Connecticut:** The university campus is open to the public for walking. Visitors are required to use the parking lot at the entrance. (Location 5)
- e. **Bayberry Lane Boat Launch area:** This state owned area consists of approximately 1.7 acre parcel containing a City of Groton sewer pump station. The area is partially paved and partially gravel surfaced. It provides parking space for approximately 30 car-trailer parking spaces. The permanent toilet facilities have been closed because of vandalism concerns and replaced with sporadically maintained port-a-potties. This site is the only formal public access to Pine Island Bay. The state has prepared plans for upgrading this facility and is currently revising them in response to comments received at a public hearing held recently. (Location 6)
- f. **Public Access Area at the Jupiter Point Subdivision:**

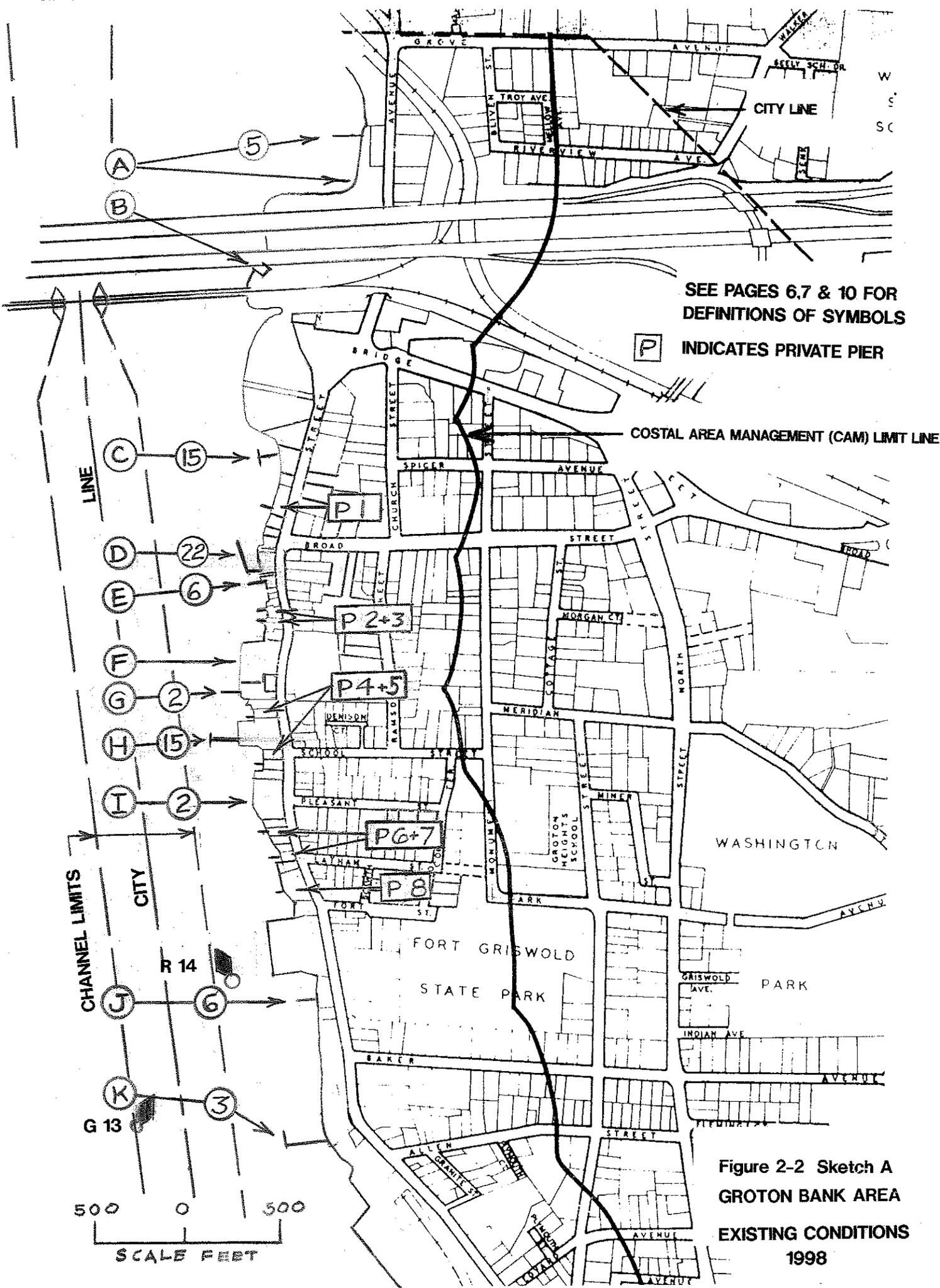
On Birch Plain Creek, the West Side Junior High School holds classes in the salt marsh area on the school property. (Location 9)

In the Thames Street area are located the following:

- a. Ken Streeter Launch area: This state owned area utilizes the state owned I-95 northbound highway right of way under the Thames River Bridge.
- b. The privately-owned former bridge abutment south of the railroad bridge.
- c. The state park at the end of Fort Street, a small waterfront lawn area with benches. (Location 2)
- d. In addition, where possible, the City is acquiring public access easements at appropriate waterfront sites through the Coastal Site Plan Review Process, with the objective of eventually obtaining a significant degree of public access to the waterfront.

Throughout the City public street parking allows easy access for shoreside walks and viewing. All public access sites are illustrated on Figure 2-9 on page xx.





SEE PAGES 6.7 & 10 FOR  
DEFINITIONS OF SYMBOLS

**P** INDICATES PRIVATE PIER

COSTAL AREA MANAGEMENT (CAM) LIMIT LINE

WASHINGTON

FORT GRISWOLD  
STATE PARK

GRISWOLD  
AVE. PARK

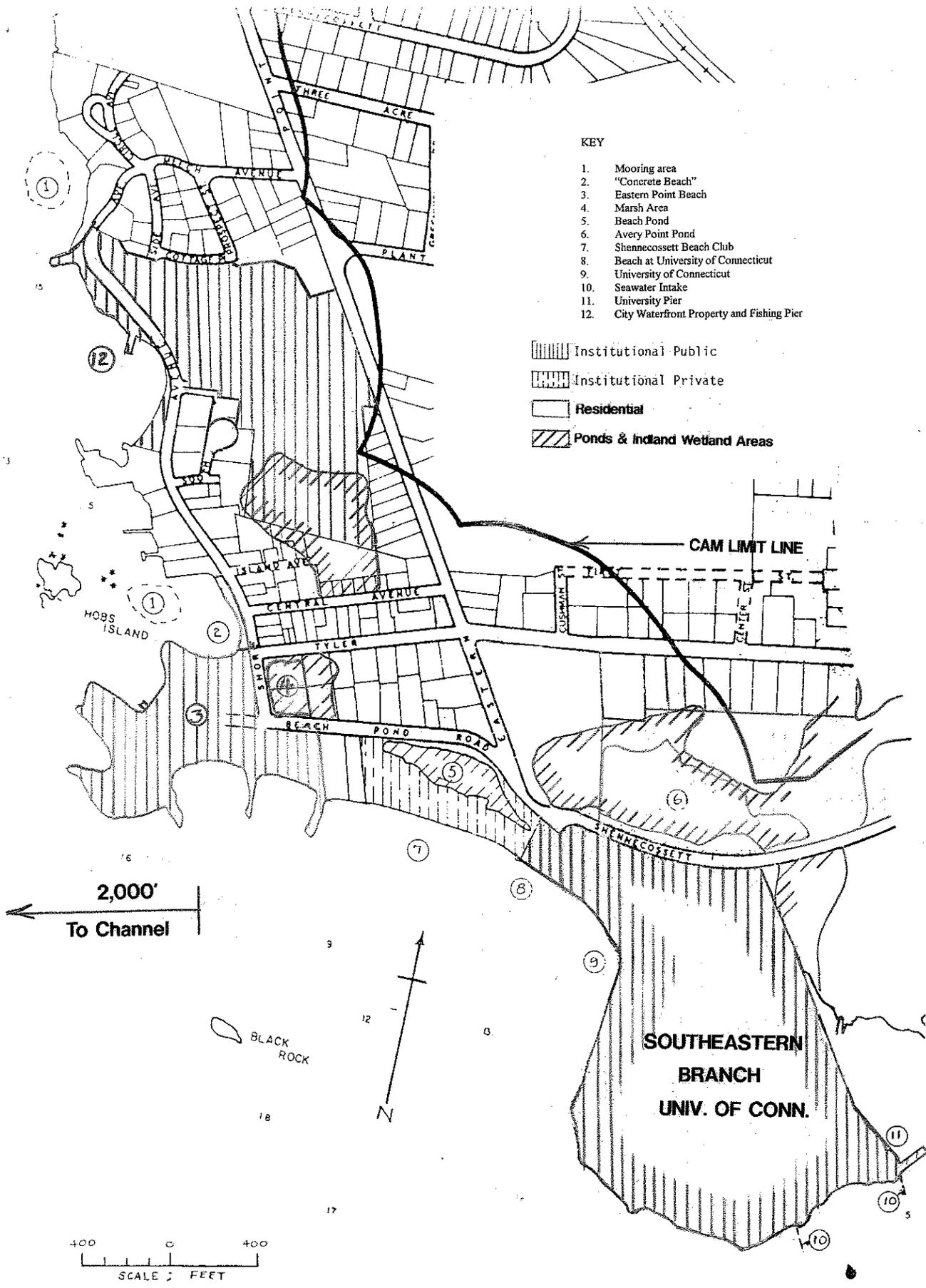
INDIAN AVE

AVENUE

Figure 2-2 Sketch A  
GROTON BANK AREA  
EXISTING CONDITIONS  
1998

500 0 500  
SCALE FEET





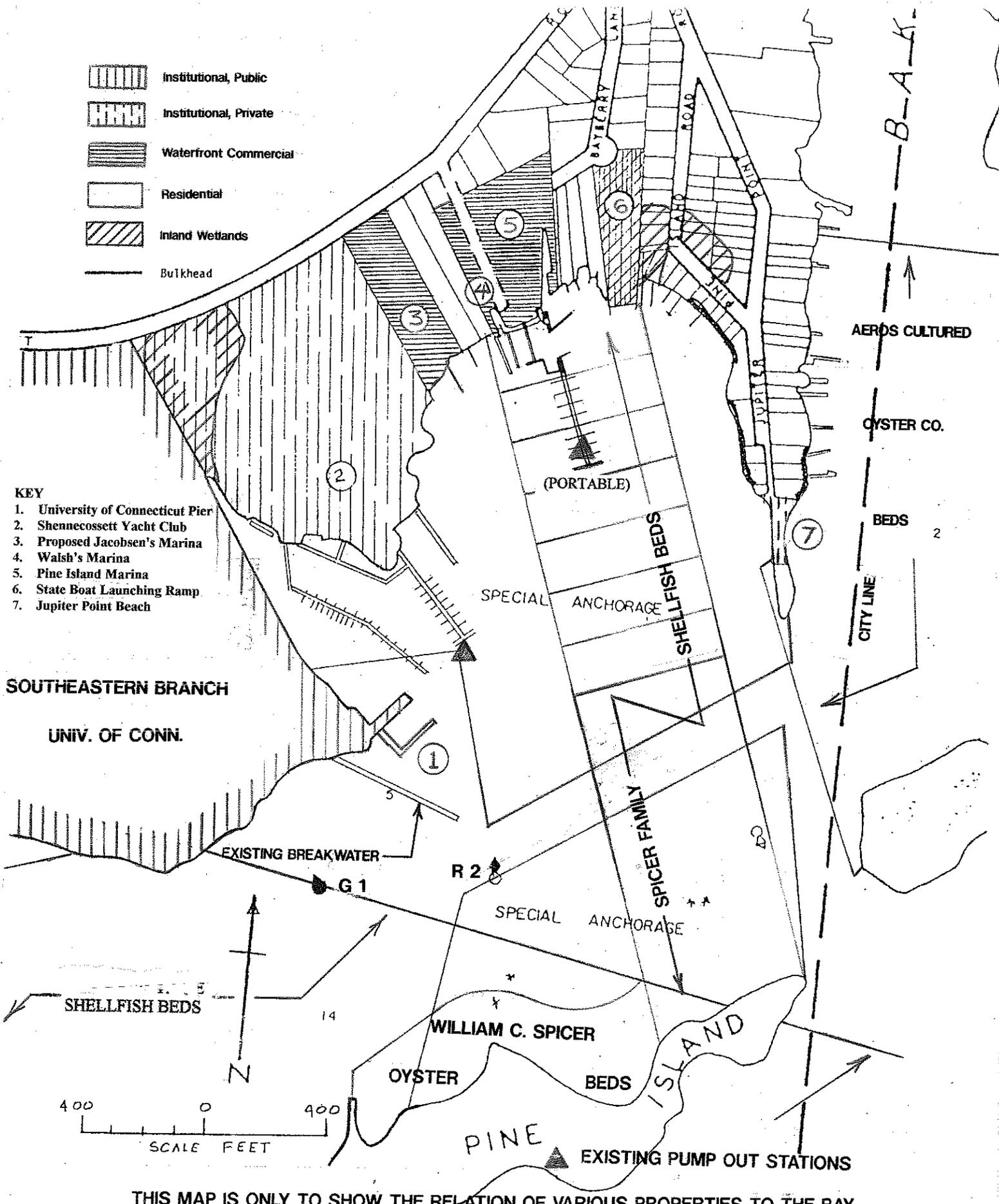
- KEY**
1. Mooring area
  2. "Concrete Beach"
  3. Eastern Point Beach
  4. Marsh Area
  5. Beach Pond
  6. Avery Point Pond
  7. Shennecossett Beach Club
  8. Beach at University of Connecticut
  9. University of Connecticut
  10. Seawater Intake
  11. University Pier
  12. City Waterfront Property and Fishing Pier

- Institutional Public
- Institutional Private
- Residential
- Ponds & Inland Wetland Areas

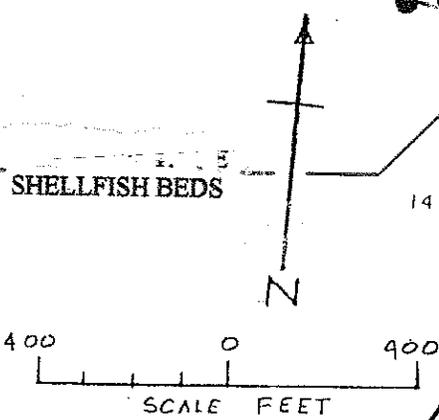
**Figure 2-4 Sketch C  
EASTERN POINT AREA**

-  Institutional, Public
-  Institutional, Private
-  Waterfront Commercial
-  Residential
-  Inland Wetlands
-  Bulkhead

- KEY**
1. University of Connecticut Pier
  2. Shennecossett Yacht Club
  3. Proposed Jacobsen's Marina
  4. Walsh's Marina
  5. Pine Island Marina
  6. State Boat Launching Ramp
  7. Jupiter Point Beach

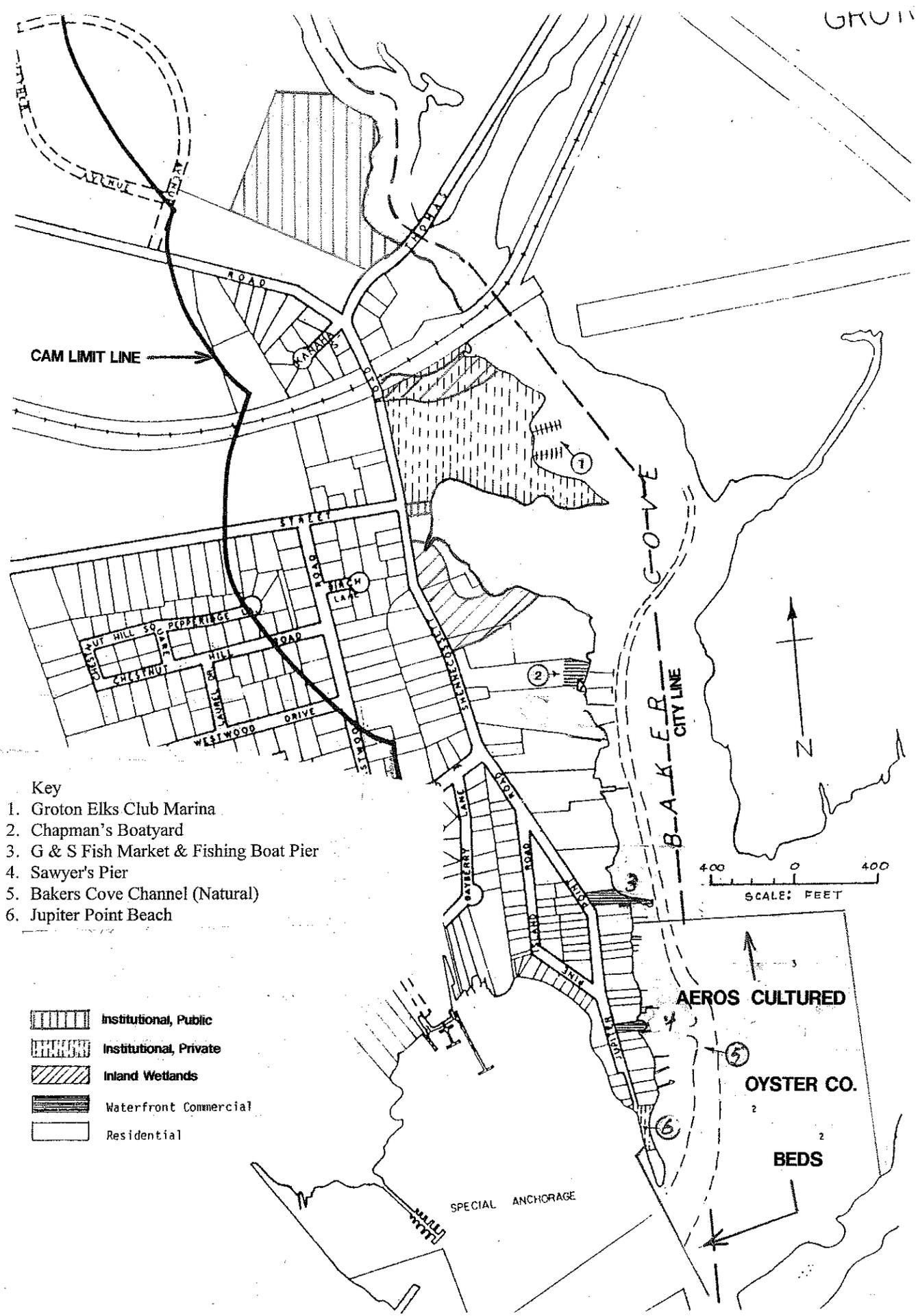


**SOUTHEASTERN BRANCH**  
**UNIV. OF CONN.**



THIS MAP IS ONLY TO SHOW THE RELATION OF VARIOUS PROPERTIES TO THE BAY

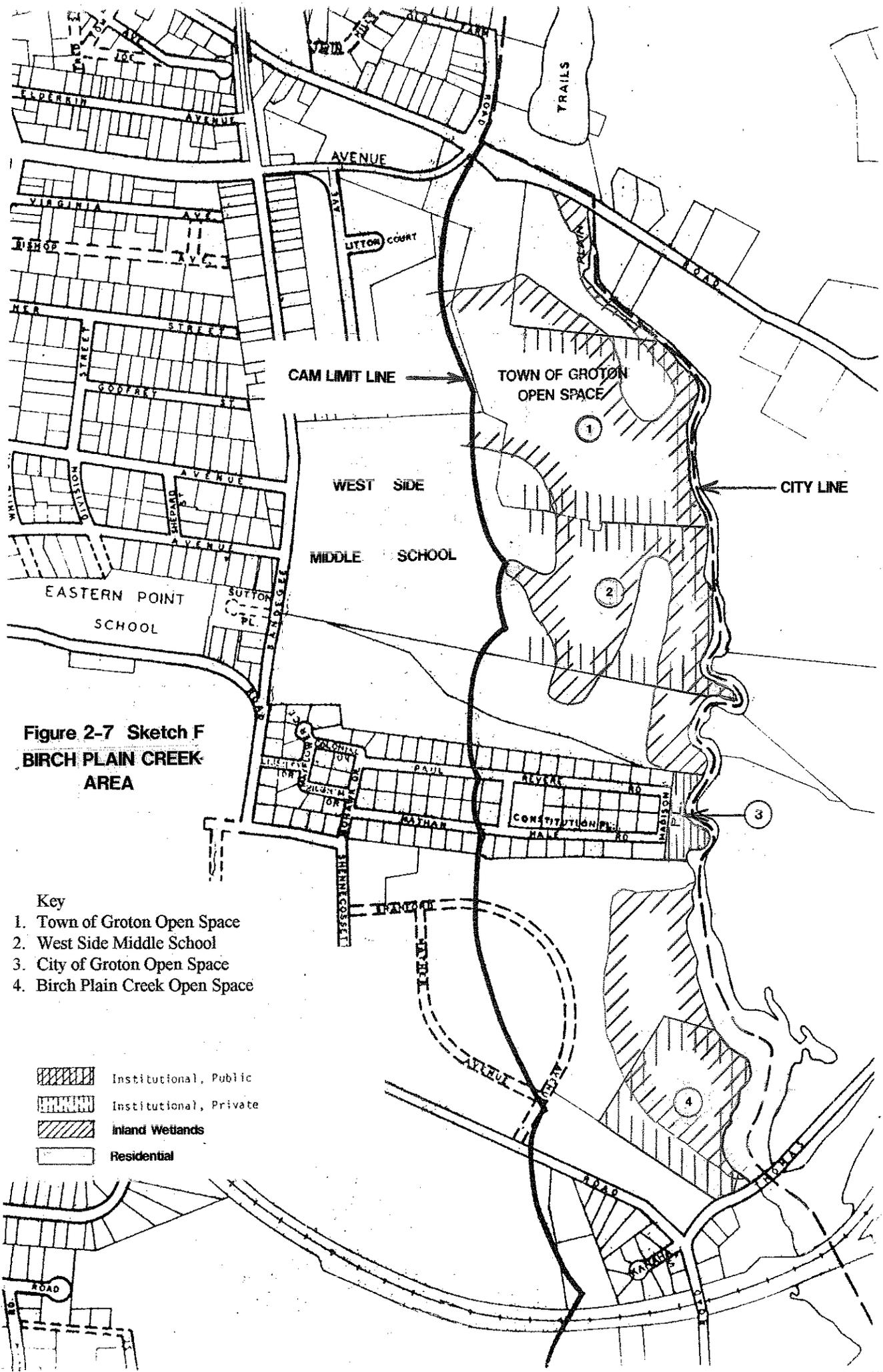
Figure 2-5 Sketch D  
 PINE ISLAND BAY AREA



- Key
1. Groton Elks Club Marina
  2. Chapman's Boatyard
  3. G & S Fish Market & Fishing Boat Pier
  4. Sawyer's Pier
  5. Bakers Cove Channel (Natural)
  6. Jupiter Point Beach

-  Institutional, Public
-  Institutional, Private
-  Inland Wetlands
-  Waterfront Commercial
-  Residential

Figure 2-6 Sketch E  
BAKER COVE AREA



**Figure 2-7 Sketch F  
BIRCH PLAIN CREEK  
AREA**

- Key**
1. Town of Groton Open Space
  2. West Side Middle School
  3. City of Groton Open Space
  4. Birch Plain Creek Open Space

	Institutional, Public
	Institutional, Private
	Inland Wetlands
	Residential

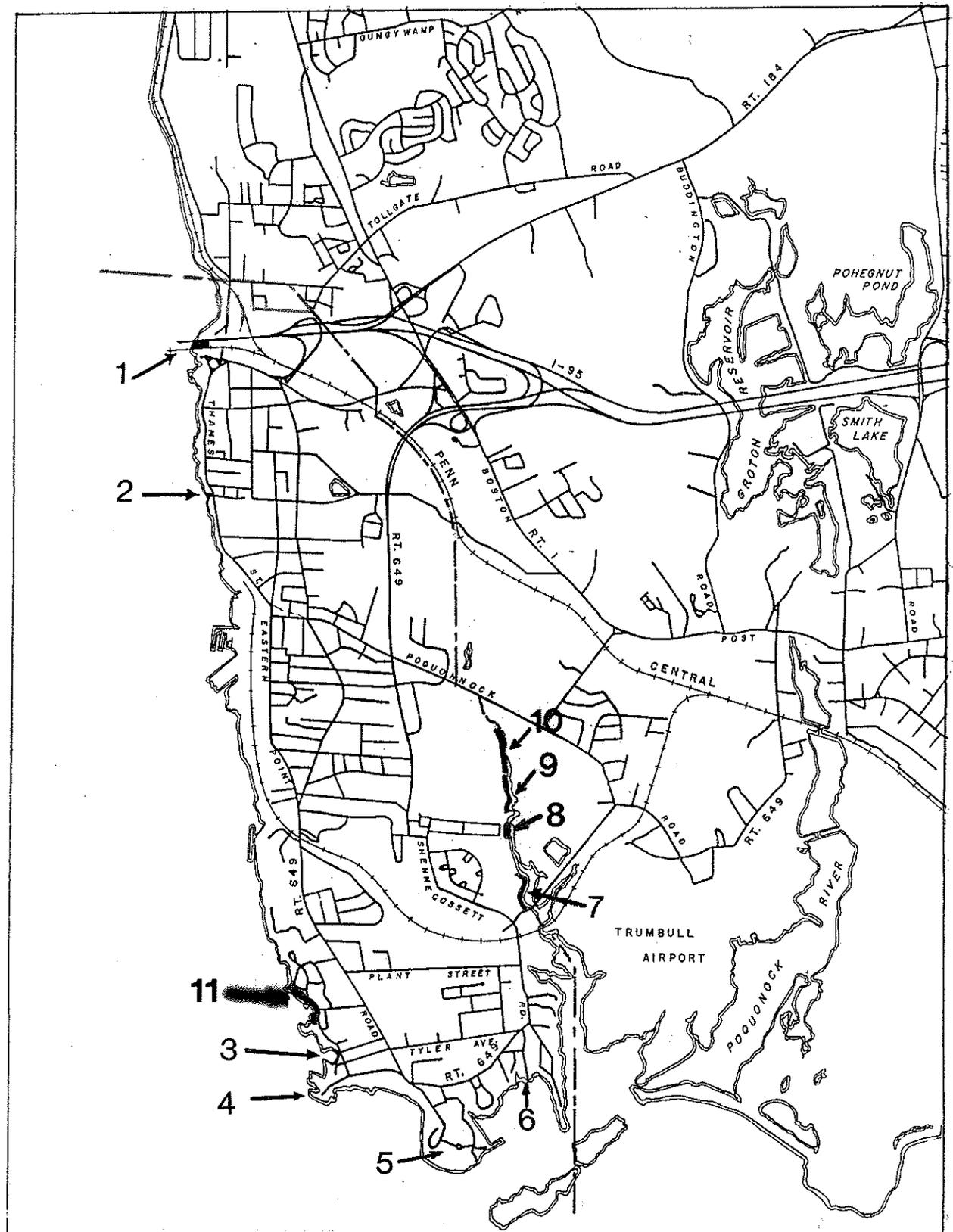
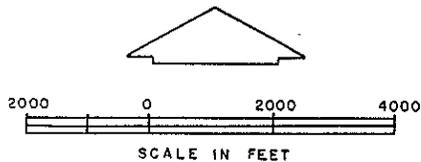
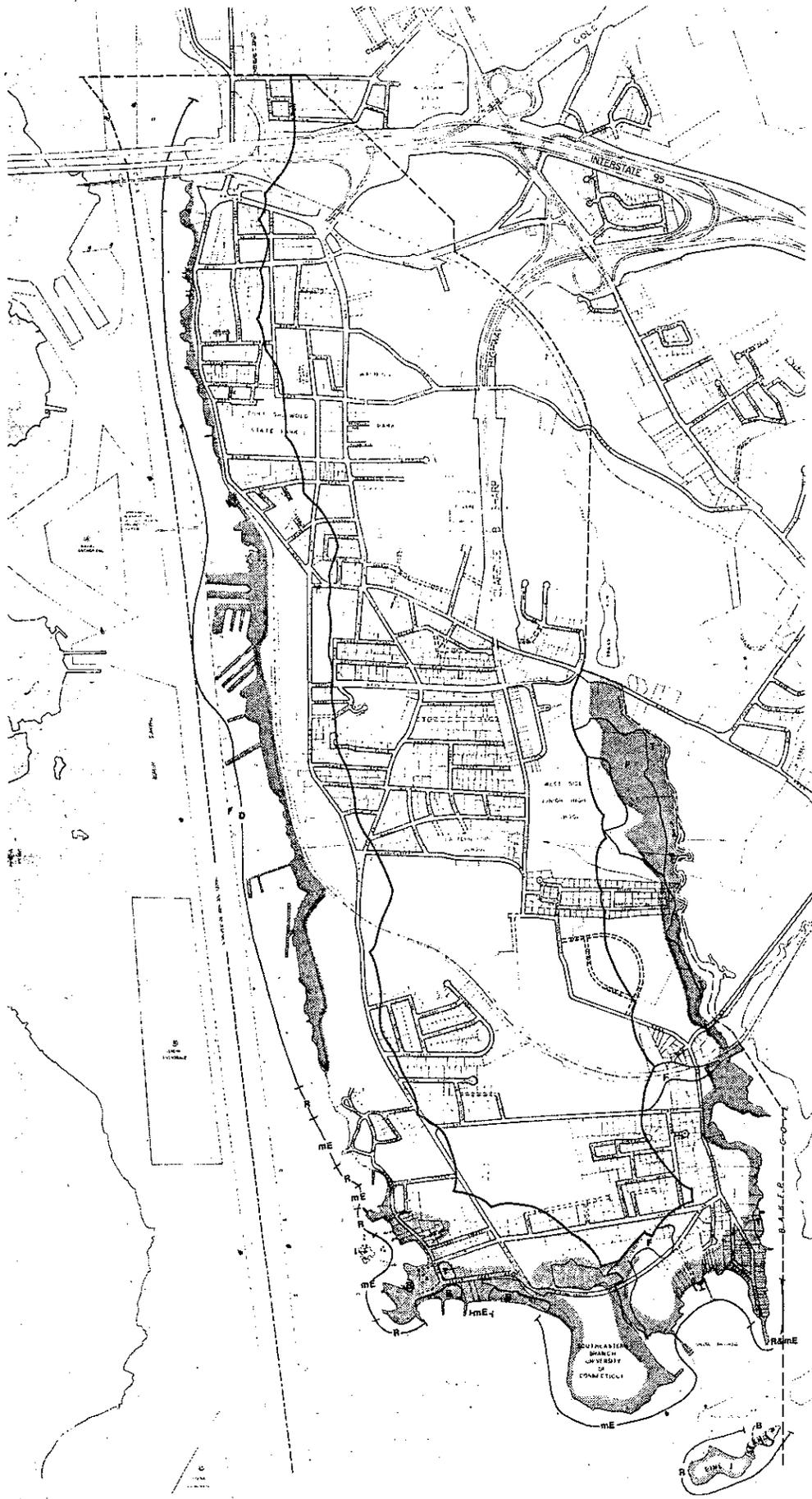


Figure 2-8

PUBLICLY-OWNED PUBLIC ACCESS POINTS



1. Ken Streeter Boat Launch Area
2. State owned Parklet at Fort Street
3. City owned "Concrete Beach"
4. Eastern Point Beach (City owned)
5. University of Connecticut
6. Bayberry Lane State Boat Launch Area
7. City owned Salt Marsh
8. City owned Open Space
9. West Side Junior High School
10. Town owned Open Space
11. City Waterfront Property & Fishing Piers



LEGEND

COASTAL LAND RESOURCES

- E Coastal Bluffs and Escarpments: Steep, seaward sloping marine cliffs or escarpments composed of unconsolidated bouldery to stony or sandy to gravelly soils. The slopes are active and the shore retreating (eroding). The slopes may be mantled with a sparse shrub or herb cover of salt spray tolerant plants. (Sources: 1,2)
- mE modified Bluffs and Escarpments: Bluffs and escarpments which have been temporarily stabilized by erosion control structures (retainment, bulkhead or seawall) positioned seaward of the marine cliff or escarpment. (Source: 1)
- B Beaches and Dunes: Moderately sloping shores composed of water worked sand, silt or cobble deposits (beach) and when present, wind deposited sands (dunes or sand flats). The beach (properly) is positioned between mean low water and coastal bluffs/escarpments or shore vegetation. The map designations include all areas of sandy beach fill. Dunes and sand flats positioned landward and elevated above the beach, support coastal grasslands dominated by beach grass (*Ammophila proveyana*). (Sources: 1,2,3,4)
- mB modified Beaches and Dunes: Beach systems temporarily stabilized by an erosion control structure (retainment, seawall or bulkhead) positioned between the dune ridge and the beach. (Source: 1)
- R Rocky Shorefronts: Shorefront composed of bedrock or armored with a dense aggregate of boulder and zone. Includes rugged nearly vertical rock cliffs or gently seaward sloping rock and bouldery lands. (Source: 1)
- Coastal "Flood" Hazard Areas: 100 year coastal flood hazard area as identified by the Federal Emergency Management Agency (FEMA). On those coastal islands currently unmapped by FEMA, the flood hazard area is conservatively approximated by the 10' contour interval. (Sources: 2,5)
- F Freshwater Wetlands and Undesignated Tidal Wetlands: Areas defined in Section 22a-38 of the Connecticut General Statutes as "land, including submerged land, not regulated pursuant to sections 22a-28 to 22a-38 ('Tidal Wetlands and Watercourses Act,' inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial and glacial, ... (Inland Wetlands and Watercourses Act)." Includes all freshwater wetlands soils and any poorly to very poorly drained soils of the Pawcatuck and Westbrook series (tidal wetlands soils that are unmapped and unregulated by the state tidal wetland program. (Source: 1,5)
- I Islands: A land mass of bedrock or till encircled by coastal waters. (Note: All critical coastal resource components of the island such as bluffs and escarpments, beaches and dunes, rocky shorefront and wetlands should be managed accordingly whether or not these are displayed on this map. (Source: 1,2)
- Shorelands: Upland areas at elevations in excess of the 100 year still water flood level and located within the coastal boundary. (Source: 2,5)
- D Developed Shorefront: Port and harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of their natural physiographic features or systems. (Sources: 1,3,4,7)
- W Water: Open water bodies such as but not limited to lakes and ponds subject to regulation under Sections 22a-38 to 22a-45 of the Connecticut General Statutes. (Source: 2)

INTERTIDAL RESOURCES

- T Regulated Tidal Wetlands: Official state designated and regulated tidal wetlands located within the coastal boundary. The areas depicted on this map shall in no way supersede the official state regulated tidal wetland maps at the scale of 1:24000. (Source: 6)
- Intertidal Flats: Level to gently sloping areas subjected to alternating periods of tidal inundation and exposure. Sediments is variable ranging from mud to sand. (Source: 2)

COASTAL WATERS

- EM Estuarine Embayments: Protected coastal water bodies with an open connection to the Sound including tidal rivers, bays, coves and lagoons. (Source: 2)
- HW Nearshore Waters: Those waters and submerged lands between mean low water and a depth approximated by the 10 meter bathymetric contour. (Source: 2)
- OW Offshore Waters: Those waters and submerged lands seaward of a depth approximated by the 10 meter bathymetric contour. (Source: 2)

Coastal Boundary: As defined in Section 22a-94 of the Connecticut General Statutes as amended by Public Act 79-525. (Lands and waters seaward of the inside edge of this line are subject to the provisions of the Connecticut Coastal Management Act)

- Sources:
1. False Color Infrared Aerial Photographs (1:12000), 1974
  2. U.S.G.S. 7 1/2 Minute Quadrangle
  3. Surficial Geology Maps (U.S.G.S. or Connecticut Geological and Natural History Survey)
  4. Soil Conservation Service, Coastal Soil Maps (1:24000), 1979
  5. Flood Insurance Map Prepared by the Federal Emergency Management Agency (hazard boundary map, preliminary flood insurance rate maps or final flood insurance rate maps, whichever ones were most current at this printing)
  6. State Regulated Tidal Wetland Maps (1:24000)
  7. Coastal Area Management, Land Use Overlays (1:24000)

This map is intended as a guide to identify the approximate locations of coastal resources. Map designations conform to the resource definitions in Section 22a-93 of the Connecticut General Statutes as amended by Public Act 79-525. Boundary lines are as precise as this map and source information permit. This map shall not supersede any existing and more precise official tidal wetland map, state or municipal inland wetlands map or FEMA flood insurance map. Specific question or comments, relating to the map uses or the application of this map, should be directed to the Connecticut Coastal Area Management Program.

**MUNICIPAL  
COASTAL  
PROGRAM**

**COASTAL RESOURCES**  
CITY OF GROTON, CONNECTICUT

MAP 4



COASTAL AREA BOUNDARY  
Soundings in feet of Low Mean Water

### 3. ISSUES, PROBLEMS AND OPPORTUNITIES

#### **3.1 General**

Because of the diversity of the city's waterfront, it is necessary to discuss the subject of this chapter in terms of shoreline segments. Those utilized have already been presented in the land use descriptions contained in Chapter 2, and have been illustrated in Figures 2-2 through 2-7. Their locations are shown on Figure 2-1. Each segment has its own particular topographic and land use characteristics which give rise to a specific set of issues, problems and opportunities.

However, before discussing the segments, it is necessary to mention several concerns which apply to the entire waterfront. These are:

1. The allocation of water areas outside of the federal channel to appropriate uses. Competing uses include dockage, placement and usage of moorings, fairways, and recreational uses such as swimming, waterskiing, scuba diving plus rowing, sailing, fishing and motorboating.
2. The related problems of public access to the shoreline and the accommodation of transient vessels and their crews. Aside from private facilities, there are few places where the public can launch boats or land from transient vessels, except the state-owned launching facilities.
3. The potential for the encroachment of piers and docks into channels and anchorages, and the need for coordination between adjacent property owners in the planning and construction of such facilities.
4. The problem of water pollution. This is brought about by the urban and industrial nature of the City.
5. The related problems associated with the conflicts resulting from use of the same areas for recreation and aquaculture.
6. The Commission will cooperate with state federal and local authorities regarding the security of the waterfront.

#### **3.2 Area A: Groton Bank**

The principal problem facing this area of the City is economic revitalization, of both the land uses along the river and of the waterfront itself. Several groups within the City have been formed to help solve this problem. The City administration has taken steps to help, notably by commissioning the Thames Street Study, a planning study of the area funded by the Coastal Area Management section of the Connecticut Department of Environmental Protection. The City has also created the Thames Street Revitalization Advisory Committee and is acting on the Committee's recommendations. In 1990 the City completed the Thames Street Beautification Program Report and has completed streetscape improvements to the Thames Street/School Street intersection, as well as the Thames Street/Latham Street intersection and the Thames Street/Fort Street intersection.

From the point of view of the Harbor Management Commission, economic revitalization in this area means encouragement of water-dependent businesses, such as tour boats and charter fishing boats, encouragement of provisions for transient vessels, and water-dependent businesses generally.

One of the recommendations of the above study was a public walkway along parts of the waterfront, to attract pedestrians and bring people into the area. However, generally the City's voters have been reluctant to approve expenditures for property acquisition. There are physical and geographic problems in the development of the waterfront in this area. The land between

Thames Street and the river is narrow and steep, which makes development on the waterfront difficult. The area is exposed to the full width of the New London Harbor, and the predominant west or southwest winds produce rough seas which make keeping boats at docks difficult. The main harbor channel is very close to the shore at this point, and is used by a variety of vessel traffic. This adds to the wave wash problem. The water is deep close to the shore which makes development for the support of small boats expensive.

There are a few moorings in this area, but the limited space and lack of shore support facilities and public access has held down their number.

An important asset in this area is the state-owned boat launching facility under the Route I-95 bridge. Utilization of this facility by the general public should be encouraged.

It seems that the eventual revitalization of this area may well require large scale redevelopment. The multiplicity of small land holdings and properties with small frontage on the river make coordination of development projects difficult.

### **3.3 Area B: Industrial Area**

As described in Chapter 2 of this plan, three large industrial firms are located on this section of waterfront. These are the Electric Boat Corporation which builds nuclear-powered submarines for the U.S. Navy, the Amerada Hess Corporation, which operates a large oil terminal, and Pfizer, Inc., a pharmaceutical firm. All of these are water-dependent activities. The Electric Boat Corporation uses its waterfront for shipbuilding and ship support. At the Amerada Hess Corporation seagoing tankers and barges are off-loaded, and Pfizer, Inc. has barges at the wharf.

This area contains a concentrated economic base of manufacturing employment in southeastern Connecticut. It is essential that this plan should not inhibit this economic activity. The need for additional dock space for large vessels can be foreseen, as well as the need for industrial use of the waterfront. As in the Thames Street area described above, the physical characteristics of the area will constrain future development. Here, also, the land area is narrow and steeply sloping, and the main ship channel is close to shore. The water between the channel and the shoreline, while too deep and exposed for easy marina development, is too shallow in many locations for large ships.

An important concern in this part of the river is the potential for oil and chemical spills into the river. The Harbor Management Commission is concerned about the potential for oil and chemical spills.

Within the city's waters, there is a security zone in the New London Harbor, established by the US Coast Guard. Nautical Chart 13213, published by the National Oceanic and Atmospheric Administration, shows the location of the security zone adjacent to the Electric Boat shipyard. The regulations pertaining to this zone are contained in the United States Coast Pilot 2 (Cape Cod to Sandy Hook). The security zone, which is shown on Figure 2-3 on page 16, is to prevent unauthorized entry into the zone and is maintained by Electric Boat security personnel. For reference the regulations are quoted herein.

A 25 yard permanent Regulated Navigation Area (RNA) has been established by USCG around all bridge foundations, support stanchions, piers or abutments in the Captain of the Port, Long Island Sound Zone.

#### **Subpart D – Security Zones** **§165.30 Security zones.**

(a) A security zone is an area of land, water, or land and water which is so designated by the Captain of the Port or district Commander for such time as is necessary to prevent damage or

injury to any vessel or waterfront facility, to safeguard ports, harbors, territories, or waters of the United States or to secure the observance of the rights and obligations of the United States.

No persons, work barges or vessels of any type may enter into these regulated navigation areas without advance approval from USCG Captain of the Port, Long Island Sound.

(b) The purpose of a security zone is to safeguard from destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of a similar nature-

- (1) Vessels.
- (2) Harbors.
- (3) Ports and
- (4) Waterfront facilities—in the United States and all territory and water, continental or insular, that is subject to the jurisdiction of the United States.

§165.33 General regulations.

Unless otherwise provided in the special regulations in Subpart F of this part-

(a) No person or vessel may enter or remain in a security zone without the permission of the Captain of the Port;

(b) Each person and vessel in a security zone shall obey any direction or order of the Captain of the Port;

(c) The Captain of the Port may take possession and control of any vessel in the security zone;

(d) The Captain of the Port may remove any person, vessel, article, or thing from a security zone.

(e) No person may board, or take or place any article or thing on board, any vessel in a security zone without the permission of the Captain of the Port; and

(f) No person may take or place any article or thing upon any waterfront facility in a security zone without the permission of the Captain of the Port.

§165.140 New London Harbor, Connecticut—security zone.

(a) Security Zones—

(1) Security zone A. The waters of the New London Harbor west of the Electric Boat Division Shipyard enclosed by a line beginning at a point on the shoreline at

41°20'22.1"N.;72°04'52.8"W.;then west to  
41°20'28.7"N.;72°05'03.5"W.;then to  
41°20'53.3"N.;72°05'06.6"W.;then to  
41°21'03. N.;72°05'06.7"W.;then due east to a point on the shoreline at  
41°21'03.N.;72°05'00.7"W.;then along the shoreline to the point of beginning.

(b) Special regulation. Section 165.33 does not apply to public vessels when operating in Security Zones A or to vessels owned by, under hire to, or performing work for the Electric Boat Division when operating in Security Zone A.

Although it is possible that the defense orientation of one of the major industries here might cause economic dislocation in the event of a decrease or change in priorities in defense spending, the final result of this cannot be predicted at this time. Thus, this Plan must assume that these industries will continue for the foreseeable future, and extensively utilize their collective waterfront areas.

### **3.4 Area C: Eastern Point**

This portion of the City's shoreline can be divided into three areas, proceeding from north to south as follows: First, a well kept attractive residential area of turn-of-the-century single-family houses; next, a water-related recreational area containing the City-owned Eastern Point Beach, and the Shennecossett Beach Club; and third, the property of the University of Connecticut.

In the residential area, the shore is rocky and broken into house lots. There are a few moorings here for boats which belong to the property owners, but the lack of public access up to the present time, and the fact that the shoreline is exposed to winds and waves from the southwest, have limited their numbers. There is a splendid opportunity for public access to the shore as Pfizer, Inc. conveyed a parcel of waterfront land extending from Shore Avenue to the Thames River and provides approximately 1000 feet of shorefront access. This parcel contains two masonry piers and can be used for fishing and sightseeing.

It is essential that the recreational uses south of the residential area be conserved and enhanced. Eastern Point Beach is used principally for swimming but also for fishing and scuba diving during the seasons when the swimming areas are closed. There are no public boat launching facilities in this area, although it does seem possible that a launching ramp for dinghies could be developed here, perhaps at the "concrete beach" which forms an embankment along Shore Avenue. The Shennecossett Beach Club is a private club, the principal function of which is water-related sports, principally swimming, but there also is dinghy and board boat sailing off the beach.

The rocky shore in this area lends itself to lobstering. There are lobster pots here. Lobsters are also taken by scuba divers. There is also some waterskiing and personal watercraft activity. A water use plan which will allocate space to all of these activities is highly desirable.

There are two ponds or conservation areas along Shennecossett Road, one on the Beach Club property and one on property belonging to the University of Connecticut. While these areas are not specifically under the cognizance of the Harbor Management Commission, their existence should be noted, as they perform important drainage functions, as well as provide habitat for wildlife, notably shore birds.

At the University of Connecticut, the shoreline included in the map entitled Eastern Point Area is all open to the public. Much use is made of it by local residents for walking, jogging, and simply looking at the view. It is intended by the state that this use will continue. The marine-related activities of the university will be discussed in the next section.

### **3.5 Area D: Pine Island Bay**

This area is the most active in the City with respect to recreational boating, and also supports the waterfront facilities of the University of Connecticut.

At the university property are docked boats of Project Oceanology which are used for educational purposes by the school systems of the surrounding towns. The University of Connecticut has fair and equitable access to the waterfront and has facilities sufficient to their needs. Also kept there are the smaller state research boats and the boats of the Coast Guard Research and Development

Center. The United States Coast Guard uses facilities at the Avery Point campus and presently makes only minor use of waterfront facilities.

At the Shennecossett Yacht Club, the Walsh Marina, and Pine Island Marina, are many slips for berthing pleasure boats plus numerous private docks in the bay. The Walsh Marina only rents dock space. It utilizes the fairway from the boat launch to the main fairway and also the main fairway to gain access to the Sound. Also located on Pine Island Bay is the state-owned Bayberry Lane boat launching facility. Also located here are many private waterfront residences. Some of these residences have piers at which moor pleasure boats of varying sizes are kept.

The potential exists for expansion of the university's water-related activities; notably those of the Marine Sciences Institute. Funds have been appropriated and construction has been substantially completed to upgrade the facilities at Avery Point to allow a four year degree in Marine Science.

Pine Island Marina rents moorings and the Shennecossett Yacht Club maintains approximately 39 moorings and provides launch service to any Shennecossett Yacht Club members on General Public moorings.

There are also private moorings owned by individuals. The Harbor Master has the responsibility for the allocation of moorings. A temporary shortage of moorings was created when the U.S. Army Corps of Engineers and the Connecticut Department of Environmental Protection required the removal of the southernmost row of moorings from the north anchorage area in Pine Island Bay. The fairway from the Bayberry Lane boat launch southwesterly in front of the Pine Island Marina and Shennecossett Yacht Club piers provides a safer and more direct access for boaters to enter Fisher's Island Sound

The existing transient area off of the northwest end of Pine Island contains several anchorage sites and two transient moorings. Experience has shown the demand for transient moorings in Pine Island Bay is low. Additional transient moorings are not required for the foreseeable future. Demand for transient anchorages and demand for transient moorings should be evaluated by the Harbormaster and the Harbor Management Commission if this is found necessary. There is no fee presently for use of the transient moorings. These are available on a first come first serve basis. Publicity of these moorings shall be left to the Harbormaster. The system does not require coordination between the Harbormaster and the dockmasters as General Public moorings cannot be used by transient boaters.

Pine Island Bay is subject to wave action from the south and southwest. To help in alleviating this problem, the City of Groton, the University of Connecticut, the Shennecossett Yacht Club, and Pine Island Marina have cooperated in the construction of a breakwater extending southeasterly from Avery Point. This breakwater provides some protection from waves out of the southwest; however, the central and east parts of the bay are still subject to wave action.

The potential exists for Pine Island Bay to be used for aquaculture. The potential for conflicts occur when the aquaculture area and recreational areas overlap. The needs of the many different users of the water need to be balanced in any decisions regarding permit requests for installation of aquaculture structures and equipment.

### **3.6 Area E: Baker Cove**

A consideration here is that much of the shorefront land is in the flood hazard area. While regulations of development in the flood hazard area are under the cognizance of the Planning and Zoning Commission, it is important that this Plan recognize the problem.

The small area and frontage on the cove of some of the residential lots requires the coordination of plans for dock construction between properties so that construction of a dock on one property will not limit the use of the water by its neighbors. Dock lengths could also be a problem as long docks could limit the cove's navigability.

At Calf Pasture Cove to the north of the intensively developed residential area there is some very attractive undeveloped shorefront. These should be preserved for aesthetic, historical and ecological reasons. Especially important is the preservation of views, notably from Shennecossett Road.

Moving northwards again, we come to the Elks Club property and marina. This marina has expanded its facilities, and more expansion can be expected, even though the boats must be small because of the shallowness which extends to the Thomas Road bridge. North of the bridge lies the City-owned open space area which will be described in the next section.

There are private aids to navigation north of Chapman's Boatyard leading to the Elk's Club which are maintained by the Elk's Club. There is also City maintained no wake buoy located at the entrance to Baker Cove between the southern tip of Jupiter Point and Bushy Point Island. City ordinance and Sec. 15-121-B151. Pine Island Bay and Baker Cove Regulation of the Connecticut Department of Environmental Protection Boating regulations makes Baker Cove a no wake zone with a maximum speed of six miles per hour which should help prevent accidents.

### **3.7 Area F: Birch Plain Creek**

This is a fragile and important environmental area. (See Map F) Another topic of concern here is public access, both by land and by boat. Access by land is available on four properties: The City owned Birch Plain Creek Conservation Area, the City-owned open space area at the end of Paul Revere Road and Nathan Hale Road, West Side Junior High School, and the Town-owned open space north of West Side Junior High School. All of these properties are utilized as passive open space areas and for teaching. The private properties along the creek all contain salt marsh areas. Development here is limited by the state statutes controlling activities in tidal wetlands. CGS section 22a-28 through section 22a-35 (Tidal Wetlands Act). Nevertheless, it is felt that dock construction should be discouraged in this area in order to help preserve the natural resources of Birch Plain Creek.

Access by boat is limited by the size of the creek. It is highly desirable to prohibit use of motors north of the Thomas Road Bridge because of the potential damage to the marshy banks from wakes and because of the possibility of pollution.

There is a concern here that increasing development of upland areas is causing an increase in storm water run-off, which is changing the salinity of the creek, resulting in the ecological characteristics of the marsh. However, this is a problem primarily for the Conservation Commission, although the Harbor Management Commission has voted to support a request for an increase in size of the opening of the Thomas Road Bridge in order to increase water flow and tidal flushing action. The bridge opening was recently enlarged by the Town.

This is a very beautiful area offering many opportunities for the observation of nature and the study of wildlife. Such a resource is a valuable asset for an urban municipality. The Harbor Management Commission must work in harmony here with the activities of the Conservation Commission in order to ensure that the area is appropriately managed.

## 4. GOALS, OBJECTIVES AND POLICIES

The goals and objectives listed here are derived directly from the issues, problems and opportunities discussed in the previous chapter. The same division of the City's waterfront into geographic areas based on topography and land use has been employed. These divisions are illustrated in Figures 2-2 through 2-7, and their locations are shown on Figure 2-1.

### **4.1 General Goals**

1. Allocate water areas to appropriate uses in order to allow the maximum utilization of those areas with minimum interference between uses and minimum detrimental environmental impacts.
2. Where necessary and appropriate, regulate one or more of the following aspects of moorings:
  - a. Location
  - b. Occupancy
  - c. Tackle Specifications
3. Monitor speeds and wakes of vessels.
4. Encourage use of shore front areas for public access to the waterfront. Public access includes not only physical access but visual access, i.e., preservation of water views.
5. Encourage the installation of sewage pump-out or dump facilities.

### **4.2 Area A: Groton Bank**

1. Objectives:
  - a. Encourage economic development, including, but not limited to:
    1. Ferry/Sightseeing Boats
    2. Marina Development
    3. Tourist/Sportfishing boats
    4. Facilities for commercial fishing boats
    5. Cruise ship berthing
  - b. Keep Thames River channel free of obstructions. There is a sunken vessel marked by a nun buoy, east of the Channel below the Thames Inn.
  - c. Provide for the equitable utilization of the available resources by commercial interests and residents of the Thames Street area.
  - d. Encourage public access and passive recreation.
  - e. Encourage use of state boat launch area.
  - f. Encourage accommodation for transient vessels.

## DRAFT

### 2. Policies to ensure proper utilization:

#### a. Shoreline Development Guidelines

1. Limit pier development within guidelines recommended by the US Army, Corps of Engineers.
2. Provide adequate water space between docks so as not to interfere with neighbors.
3. Coordinate review of dock proposals with review of Coastal Site Plans and site plans by the Planning and Zoning Commission to minimize land/water utilization conflicts.

#### b. Mooring Regulations

1. Limit mooring locations within guidelines recommended by the US Army, Corps of Engineers.
2. Mooring permits required
  - a. Mooring locations to be approved by the Harbor Master.
  - b. Mooring tackle to be approved by the Harbor Master using the following guidelines; Mooring gear shall consist of a mushroom anchor, heavy chain (1.5 times maximum depth of water), light chain (length equals maximum depth of water), white with blue stripe mooring buoy (marked with weight of anchor, boat owners name, assigned mooring number), 15' nylon pennant. Mooring gear shall be inspected annually and is the sole responsibility of the boat owner.

#### c. Transient vessels

1. Encourage commercial guest moorings
2. Encourage dock owners to provide space for transients

#### d. Encourage all new marinas or yacht clubs or any existing marina or yacht club undergoing 25% or more expansion to install and maintain pump-out and dump facilities at a location suitable to the Harbor Management Commission unless there are presently adequate pump-out facilities and dump facilities available to the general public that will support the boating traffic. Expansion percentage shall be determined by the increase in the number of slips versus existing slips. However, final decision on whether or not to require installation of pump out or dump facilities shall be left to the Connecticut Department of Environmental Protection Office of Long Island Sound Programs.

#### e. Encourage public access of all types through the review of Coastal Site Plans referred to the Harbor Management Commission by the Planning and Zoning Commission and Zoning Board of Appeals.

### **4.3 Area B: Industrial Area**

#### 1. Objectives:

- a. Support development by industry as improving the economic situation and tax base in the City, at the same time, guide such development in order to prevent adverse impacts.
- b. Maintain clear access for shipping to industrial facilities.

- c. As far as possible, prevent occurrence of oil and chemical spills and facilitate cleanup operations.
  - d. Keep New London Harbor and channel free of obstruction.
  - e. Maintain security zone in front of Electric Boat Division.
  - f. Recognize and support recreational boating activity by industries in this area.
2. Policies to ensure proper utilization:
- a. Shoreline Development Guidelines
    - 1. Limit pier development within guidelines recommended by the US Army, Corps of Engineers.
    - 2. Encourage open piling construction or floating construction
    - 3. Encourage shared water space
    - 4. Provide adequate water space between docks so as not to interfere with neighbors.
    - 5. Coordinate review of dock proposals with review of Coastal Site Plans and site plans by the Planning and Zoning Commission to minimize land/water utilization conflicts.

#### **4.4 Area C: Eastern Point**

1. Objectives:
- a. Maintain character of shoreline from Circle Avenue southwards to Tyler Avenue.
  - b. Encourage utilization by City residents and the general public of the area's natural and man-made features for a diversity of water-related recreational uses, but with minimum conflict between those uses.
    - 1. Swimming
      - a. Swimming at Eastern Point Beach for the general public.
      - b. Swimming at Avery Point for the general public
- The following activities occur throughout the area. No conflicts are known to exist.
- 2. Scuba diving
  - 3. Waterskiing
  - 4. Fishing from shore
  - 5. Lobstering
  - 6. Dinghy and board boat sailing
- c. Support full utilization by the City's residents of the facilities at Eastern Point Beach.
  - d. Encourage use of the shoreline at the University of Connecticut property at Avery Point for recreation.
2. Policies to ensure proper utilization:
- a. Designate "No Motors" area or areas for swimming in full compliance with the Boating Regulations of the DEP Bureau of Outdoor Recreation, Boating Division.
  - b. Monitor speeds and wakes of vessels.

## DRAFT

- c. Establish mooring permit regulations.
  - 1. Location: (No grid necessary due to lack of demand at this time.)
  - 2. Mooring tackle to be approved by the Harbor Master using the following guidelines; Mooring gear shall consist of a mushroom anchor, heavy chain (1.5 times maximum depth of water), light chain (length equals maximum depth of water), white with blue stripe mooring buoy (marked with weight of anchor, boat owners name, assigned mooring number), 15' nylon pennant. Mooring gear shall be inspected annually and is the sole responsibility of the boat owner.
- d. Of the activities listed above, lobstering, fishing from shore, and dinghy sailing need no regulation by the Harbor Management Commission. However, the Commission must maintain continuing coordination with the Beach and Parks Committee to monitor changes in activities.
- e. Encourage the City of Groton to permit public access to their waterfront.

### **4.5 Area D: Pine Island Bay**

- 1. Objectives:
  - a. Achieve equitable utilization of the resources available in Pine Island Bay by the following groups:
    - 1. Residential property owners
    - 2. University of Connecticut
    - 3. Marine Sciences Institute
    - 4. Project Oceanology
    - 5. Shennecossett Yacht Club
    - 6. Marinas
    - 7. Private mooring owners
    - 8. State boat launch users
    - 9. General Public
    - 10. Transient boaters
    - 11. U.S. Coast Guard
  - b. Enhance the available physical resources of Pine Island Bay to alleviate the following problems:
    - 1. Siltation of Pine Island Bay including access to the state boat launch ramp.
    - 2. Wave action from the southwest which enters Pine Island Bay between Avery Point and Pine Island.
    - 3. Pollution caused by pumping of wastes over-board and dumping of garbage from vessels in the bay. The EPA has approved Connecticut's designation of a "No Discharge" area in Connecticut coastal waters from the Rhode Island Border to Eastern Point.
- 2. Policies to ensure proper utilization:
  - a. Continue engineering studies to find a solution to wave action problems and develop potential solutions, consistent with the Connecticut Coastal Management Act and the CT Structures, Dredging & Fill in Tidal, Coastal, or Navigable Waters Act.

- b. Encourage good environmental use of Pine Island and Pine Island Bay.
- c. Establish Mooring Regulations
  - 1. Mooring grid
  - 2. Mooring assignment procedure
  - 3. Mooring tackle specifications
- d. Encourage all new marinas or yacht clubs or any existing marina or yacht club undergoing 25% or more expansion to install and maintain pump-out and dump facilities at a location suitable to the Harbor Management Commission unless there are presently adequate pump-out and dump facilities available to the general public that will support the boating traffic. Expansion percentage shall be determined by the increase in the number of slips versus existing slips. However, final decision on whether or not to require installation of pump out

or dump facilities shall be left to the Connecticut Department of Environmental Protection Office of Long Island Sound Programs.

- e. Monitor the demand for the transient area and the need for transient moorings as well as transient anchorages.
- f. Maintain fairways at existing locations as defined by Connecticut DEP and US Army Corps of Engineers permits to the Shennecossett Yacht Club and Pine Island Marina.
- g. Support development of environmentally sound aquaculture as an effective use of our natural resources.
- h. Review and consider all requests for aquaculture permits and will provide recommendations in a timely manner to all appropriate State and Federal regulatory agencies.
- i. Recognize that "safety to navigation" includes commonly used fairways as well as navigable channels marked by buoys.

#### **4.6 Area E: Baker Cove**

##### 1. Objectives:

- a. Preserve and encourage appropriate educational and passive recreational uses of the fragile and valuable salt marsh areas at the northern end of Baker Cove and Calf Pasture Cove.
- b. Achieve equitable utilization of the resources of Baker Cove by conservation, recreational, water-related commercial, and residential uses.
- c. Enhance the available physical resources in Baker Cove by maintaining the existing channel, until its abandonment in favor of the fairway envisioned under the "Policies" below, taking steps to prevent siltation and to protect shore areas from wave action due to the breach between Bushy Point and the Bluff Point Coastal Reserve.
- d. Encourage all new marinas or yacht clubs or any existing marina or yacht club undergoing 25% or more expansion to install and maintain pump-out and dump facilities at a location suitable to the Harbor Management Commission unless there are presently adequate pump-out and dump facilities available to the general public that will support the boating traffic.

## DRAFT

Expansion percentage shall be determined by the increase in the number of slips versus existing slips. However, final decision on whether or not to require installation of pump out or dump facilities shall be left to the Connecticut Department of Environmental Protection Office of Long Island Sound Programs.

### 2. Policies:

- a. Establish conservation areas for northern area below railroad bridge.
- b. Establish conservation areas for the waters of Calf Pasture Cove.
- c. Establish future fairway locations to provide a safe navigable route for pleasure and commercial craft.
- d. Boat operation regulations
  1. Monitor speed and wake in channel
  2. Monitor outboard powered boats in environmentally sensitive areas. See map on page 38.

### **4.7 Area F: Birch Plain Creek**

#### 1. Objectives:

- a. Encourage the preservation for appropriate educational and passive recreational uses the marsh areas along Birch Plain Creek
- b. Encourage use of City property for park and appropriate small craft activity

#### 2. Policies:

- a. Limit navigation of the creek to non-powered vessels in full compliance with the Boating Regulations of the DEP Bureau of Outdoor Recreation, Boating Division.
- b. Encourage changes to the railroad and Thomas Road bridges in order to increase water exchange.
- c. Limit dock and pier construction because of potential for damage to marsh areas
- d. Support the development of the City property for a park

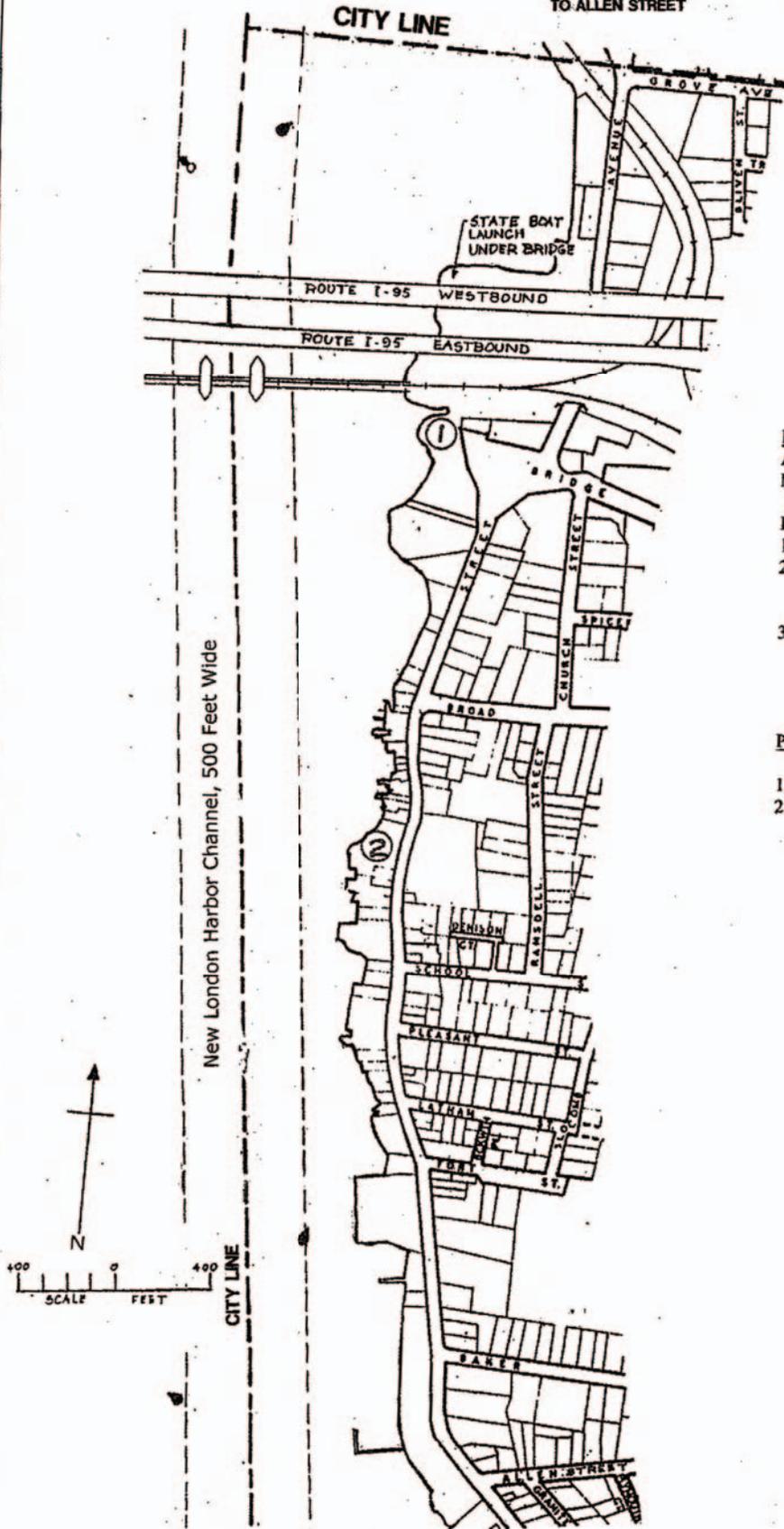
## **5. WATER USE PLAN**

This chapter consists of seven maps, one for each of the six geographic segments which are described in Chapter 3 plus a mooring grid for Pine Island Bay. These maps depict in graphic form the specific policies which the Harbor Management Commission has adopted for each of the City's diverse geographic areas. The maps thus provide a link between the policies enumerated in the previous chapter and the Harbor Management Ordinance contained in Appendix C. The maps also form part of the Ordinance, and are adopted as such by reference. They make up a plan for the use of the City's waters.

# WATER USE PLAN MAP A

## GROTON BANK

THIS MAP COVERS AREA FROM NORTHERN CITY LINE TO ALLEN STREET



### MOORINGS

Anywhere in the City, the Harbormaster Must approve tackle.

In area covered by map:

1. Harbormaster must approve locations
2. Mooring locations must be in accordance with guidelines of the US Army, Corps of Engineers
3. No grid system is planned

### Potential Public Access Sites

1. Bridge abutment
2. Puffins Restaurant

Figure 5-1

# WATER USE PLAN MAP B

## INDUSTRIAL AREA

THIS MAP COVERS AREA FROM ALLEN ST. TO SOUTHERN END OF PROPERTY OF PFIZER INC.

**SECURITY ZONE**  
EXTENDS FROM NORTHERN AND SOUTHERN LIMITS INDICATED AND BETWEEN SHORELINE AND EASTERN EDGE OF THAMES RIVER CHANNEL

**MOORINGS**  
PROHIBITED IN AREA COVERED BY THIS MAP

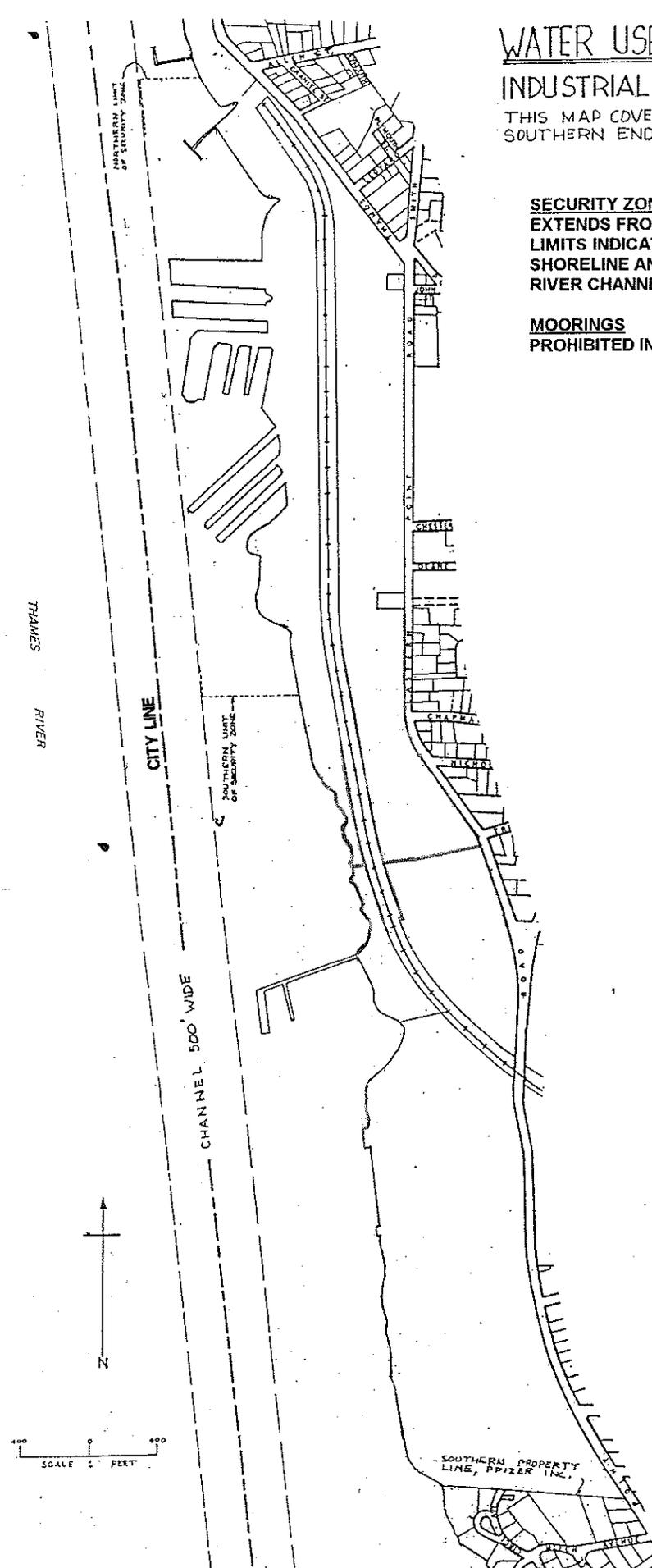


Figure 5-2

# WATER USE PLAN MAP C

## EASTERN POINT

THIS MAP COVERS AREA FROM SOUTHERN END OF PFIZER INC, PROPERTY TO SOUTHEASTERN EXTREMITY OF AVERY POINT

### LEGEND

- (A) MOORING AREA
- (B) AREA WHERE USE OF MOTORS IS PROHIBITED
- SWIMMING BEACH

### MOORINGS

ANYWHERE IN CITY HARBORMASTER MUST APPROVE TACKLE.  
IN AREA COVERED BY THIS MAP HARBORMASTER MUST APPROVE LOCATION  
NO MOORING GRID IS PLANNED IN THIS AREA

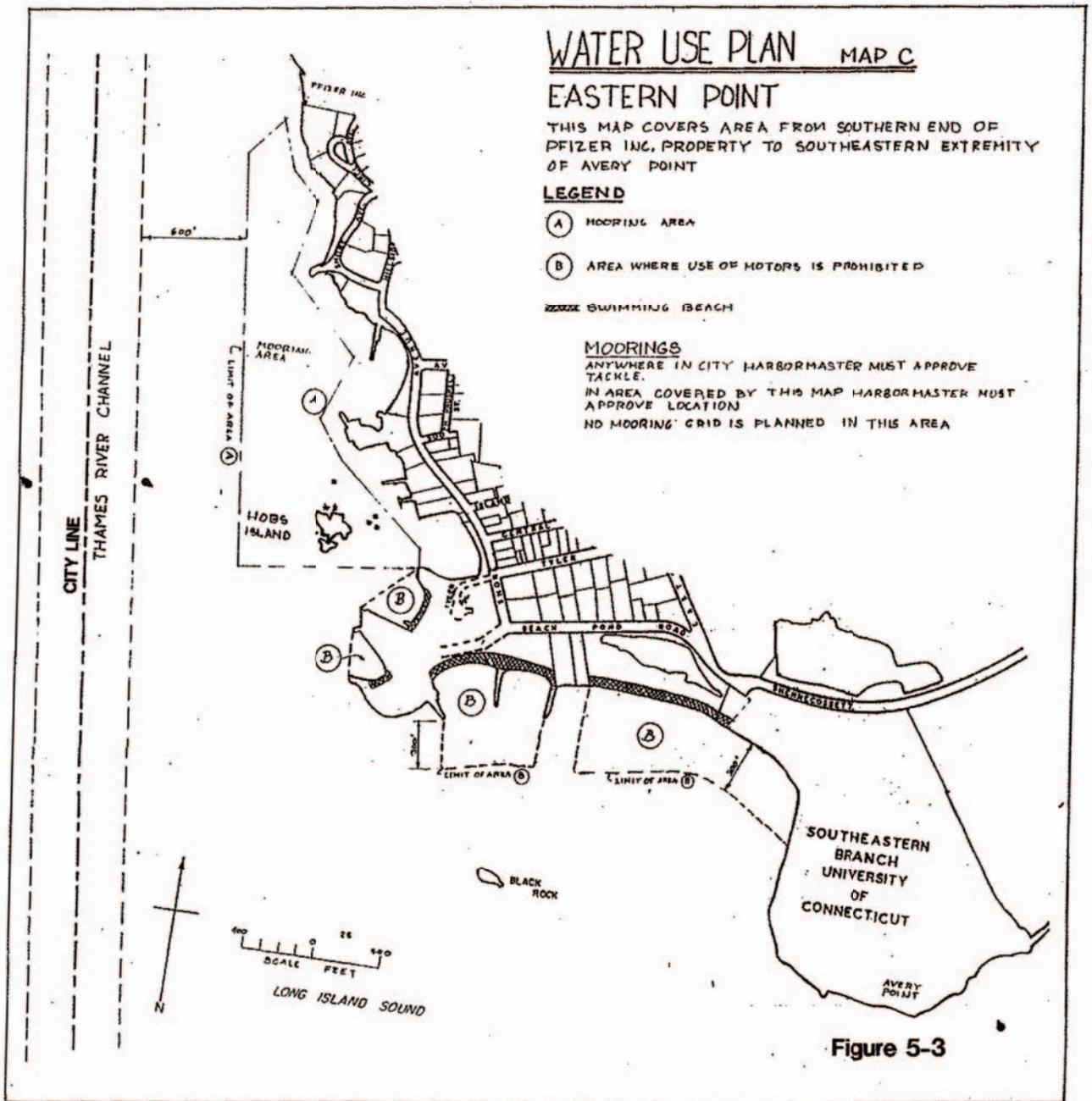


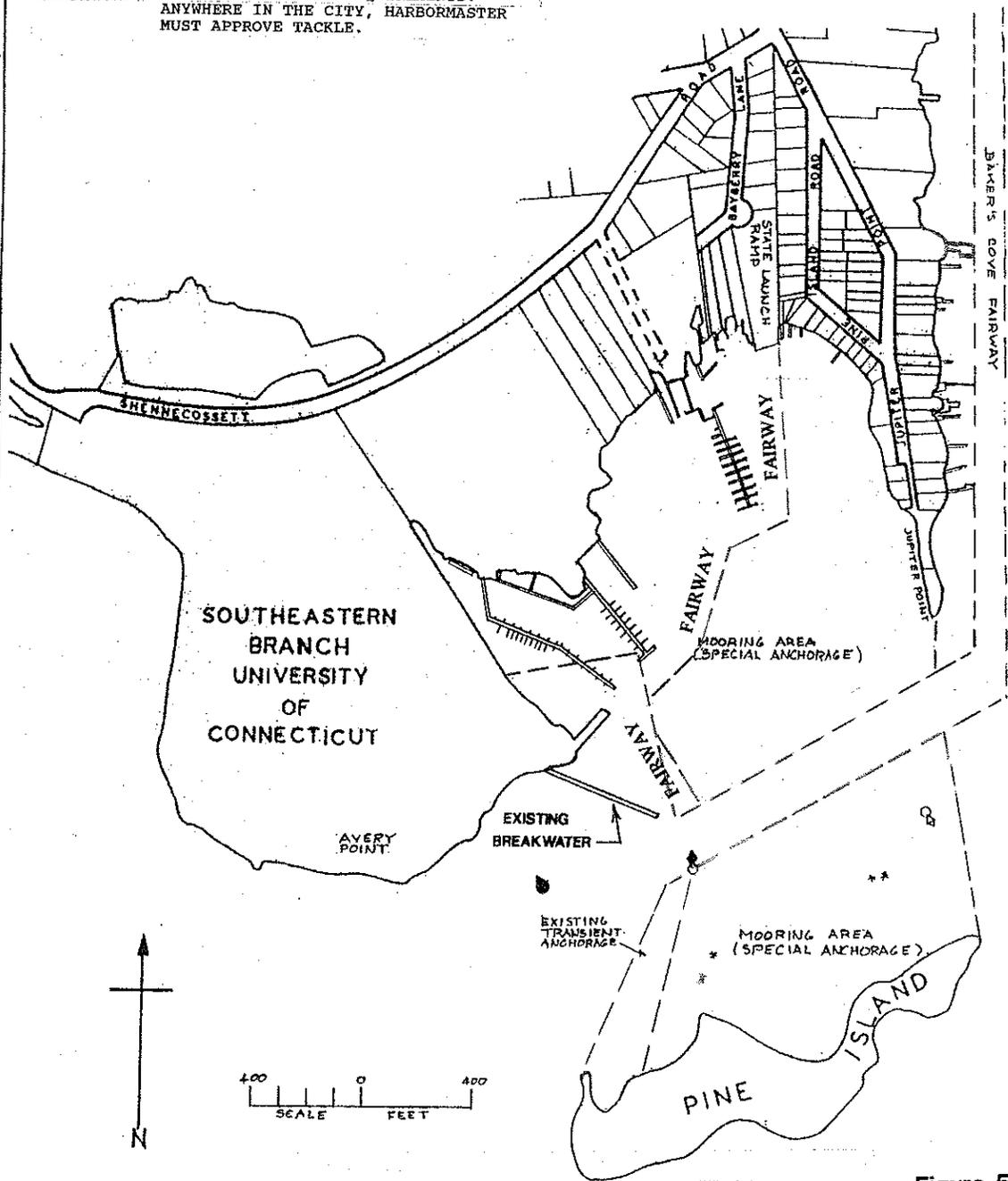
Figure 5-3

# WATER USE PLAN MAP D

## PINE ISLAND BAY

THIS MAP COVERS AREA NORTH OF PINE ISLAND FROM SOUTHEAST EXTREMITY OF AVERY POINT TO SOUTHERN END OF JUPITER POINT

**MOORINGS:** SEE ORDINANCE FOR REQUIREMENTS. ANYWHERE IN THE CITY, HARBORMASTER MUST APPROVE TACKLE.



SPECIFIC TOPOGRAPHIC, HYDROGRAPHIC, MOORING AND FAIRWAY DETAILS ARE SHOWN ON PAGE 40

Figure 5-4

THE DEP HAS NOT ENDORSED ANY PROPOSED FAIRWAYS

# WATER USE PLAN MAP E

## BAKER COVE

THIS MAP COVERS AREA FROM SOUTHERN END OF JUPITER POINT TO THE BAKER COVE RAILROAD BRIDGE

**MOORINGS**  
IN AREA COVERED BY THIS MAP,  
MOORINGS ARE PROHIBITED  
EXCEPT AS NOTED IN PARA. 6-3.8.25

**AREAS OF SPECIAL  
ECOLOGICAL CONCERN** 

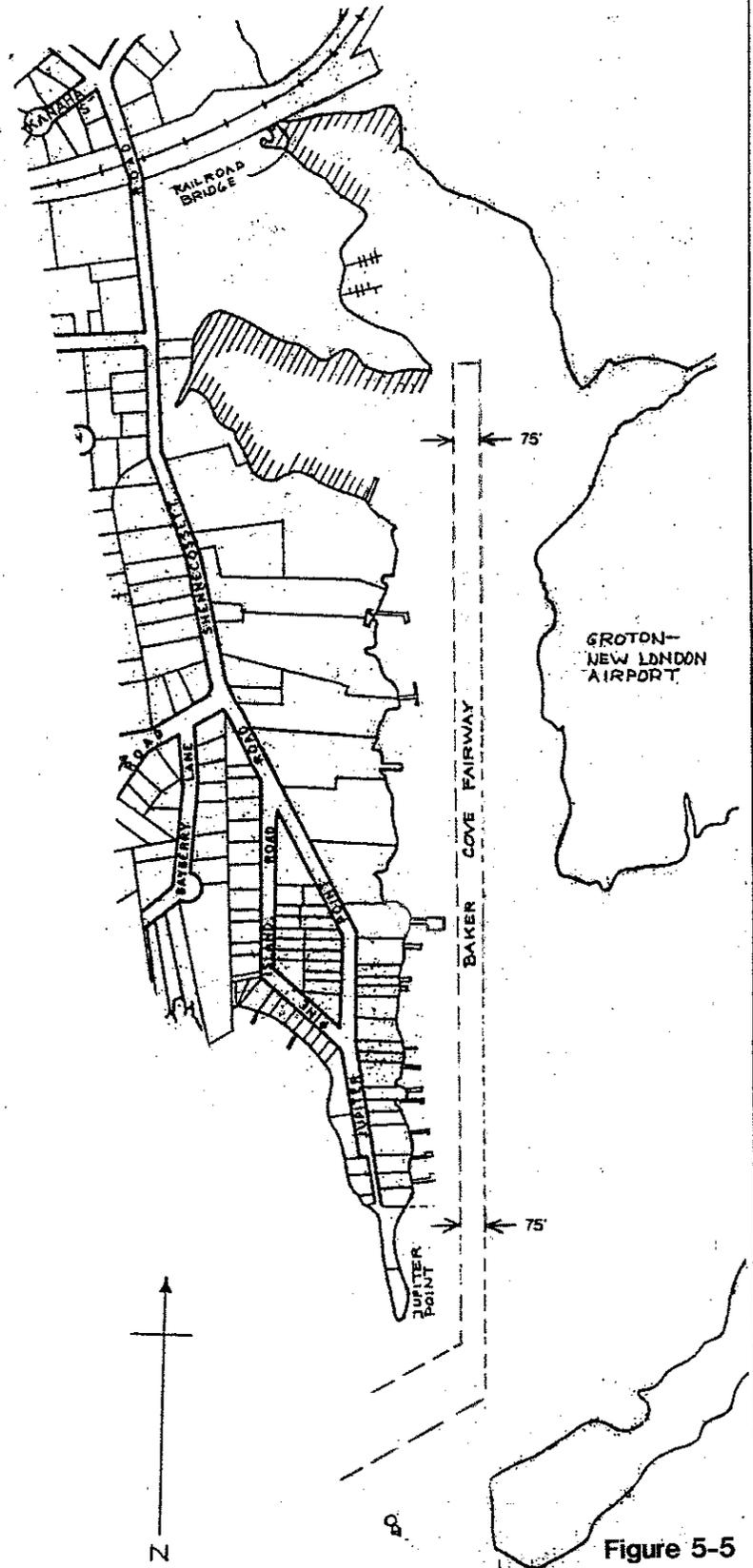


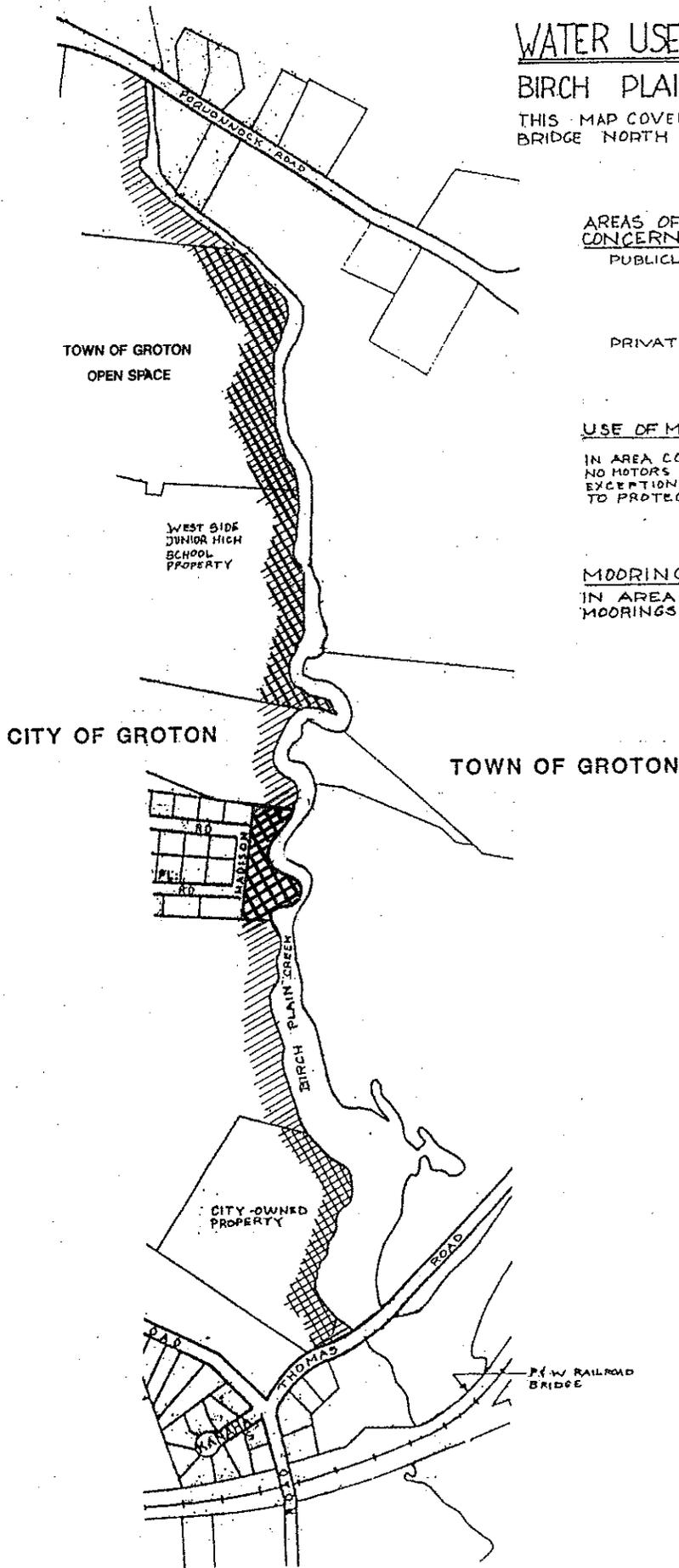
Figure 5-5

THE DEP HAS NOT ENDORSED ANY PROPOSED FAIRWAYS

# WATER USE PLAN MAP F

## BIRCH PLAIN CREEK

THIS MAP COVERS AREA FROM P&W RAILROAD BRIDGE NORTH TO PORQUONNOCK ROAD



### AREAS OF SPECIAL ECOLOGICAL CONCERN :

PUBLICLY OWNED 

PRIVATE 

### USE OF MOTORS

IN AREA COVERED BY THIS MAP, NO MOTORS ARE TO BE USED WITH THE EXCEPTION OF ELECTRIC MOTORS, IN ORDER TO PROTECT NATURAL RESOURCES.

### MOORINGS

IN AREA COVERED BY THIS MAP, MOORINGS ARE PROHIBITED

Figure 5-6

# MOORING COORDINATES

MOORING	EASTING	NORTHING	MOORING	EASTING	NORTHING	MOORING	EASTING	NORTHING
A6	1189593.3	677834.3	L10	1190209.8	677220.7	Q12	1190596.9	676764.6
A7	1189662.4	677863.4	L11	1190274.3	677258.9	Q13	1190661.9	676802.1
B6	1189622.4	677765.1	L12	1190338.8	677297.2	Q14	1190726.9	676839.6
B7	1189691.5	677794.3	L13	1190403.3	677335.5	R1	1189919.6	676287.6
C5	1189582.1	677666.6	L14	1190467.8	677373.8	R2	1189984.6	676325.1
C6	1189651.3	677695.8	L15	1190532.3	677412.0	R3	1190049.5	676362.6
C7	1189720.3	677724.9	M1	1189660.4	676818.3	R4	1190114.5	676400.0
C14	1190146.5	677968.2	M2	1189726.4	676853.9	R5	1190179.5	676437.4
D4	1189542.3	677568.3	M3	1189792.4	676889.6	R6	1190244.5	676474.9
D5	1189611.3	677597.4	M4	1189858.4	676925.2	R7	1190309.5	676512.4
D6	1189680.4	677626.6	M5	1189922.9	676963.3	R8	1190374.4	676549.8
D7	1189749.5	677655.8	M6	1189987.4	677001.6	R9	1190439.4	676587.3
D13	1190117.8	677863.9	M7	1190051.9	677039.9	R10	1190504.4	676624.8
D14	1190182.3	677902.1	M8	1190116.5	677078.1	R11	1190569.4	676662.2
E4	1189571.4	677499.2	M9	1190181.0	677116.4	R12	1190634.4	676699.7
E5	1189640.5	677528.4	M10	1190245.5	677154.6	R13	1190699.3	676737.1
E6	1189709.6	677557.6	M11	1190310.0	677192.9	R14	1190764.3	676774.6
E7	1189778.6	677586.8	M12	1190374.5	677231.2	S1	1189957.0	676222.6
E13	1190153.4	677797.8	M13	1190439.0	677269.4	S2	1190022.0	676260.1
E14	1190217.9	677836.1	M14	1190503.5	677307.7	S3	1190087.0	676297.6
F5	1189669.6	677459.3	M15	1190568.0	677345.9	S4	1190152.0	676335.0
F6	1189738.8	677488.4	N1	1189696.0	676752.3	S5	1190217.0	676372.5
F7	1189807.9	677517.6	N2	1189762.0	676787.9	S6	1190281.9	676409.9
F13	1190189.1	677731.8	N3	1189828.0	676823.6	S7	1190346.9	676447.4
G5	1189698.9	677390.2	N4	1189894.0	676859.2	S10	1190541.9	676559.8
G6	1189767.9	677419.4	N5	1189958.6	676897.3	S11	1190606.8	676597.3
G12	1190160.3	677627.4	N6	1190023.1	676935.6	S12	1190671.8	676634.7
G13	1190224.8	677665.8	N7	1190087.6	676973.8	S13	1190736.8	676672.2
H5	1189728.0	677321.1	N8	1190152.1	677012.1	S14	1190801.8	676709.6
H7	1189873.5	677370.1	N9	1190216.6	677050.3	T2	1190059.5	676195.1
H8	1189938.0	677408.4	N10	1190281.1	677088.6	T3	1190124.5	676232.6
H9	1190002.5	677446.6	N11	1190345.6	677126.9	T4	1190189.5	676270.1
H10	1190067.0	677484.9	N12	1190410.1	677165.1	T5	1190254.4	676307.5
H11	1190131.5	677523.1	N13	1190474.6	677203.4	T6	1190319.4	676344.9
H12	1190196.0	677561.4	N14	1190539.1	677241.6	T11	1190644.3	676532.3
H13	1190260.5	677599.7	N15	1190603.6	677279.9	T12	1190709.3	676569.8
I6	1189844.6	677265.8	O1	1189731.6	676686.3	T13	1190774.3	676607.2
I7	1189909.1	677304.1	O2	1189797.6	676721.9	T14	1190839.3	676644.6
I8	1189973.6	677342.3	O3	1189863.6	676757.6	U2	1190097.0	676130.1
I9	1190038.1	677380.6	O4	1189929.6	676793.2	U3	1190161.9	676167.6
I10	1190102.6	677418.8	O5	1189994.3	676831.3	U4	1190226.9	676205.1
I11	1190167.1	677457.1	O6	1190058.8	676869.5	U5	1190291.9	676242.6
I12	1190231.6	677495.4	O7	1190123.3	676907.8	U6	1190356.9	676280.0
I13	1190296.3	677533.6	O8	1190187.8	676946.0	U7	1190421.9	676317.4
J5	1189815.9	677161.4	O9	1190252.3	676984.3	U11	1190681.8	676467.3
J6	1189880.4	677199.8	O10	1190316.8	677022.6	U12	1190746.8	676504.8
J7	1189944.9	677238.0	O11	1190381.3	677060.8	U13	1190811.6	676542.2
J8	1190009.4	677276.3	O12	1190445.8	677099.1	V2	1190134.4	676065.2
J9	1190073.9	677314.5	O13	1190510.3	677137.3	V3	1190199.4	676102.6
J10	1190138.4	677352.8	O14	1190574.8	677175.6	V4	1190264.4	676140.1
J11	1190202.9	677391.1	O15	1190639.3	677213.9	V5	1190329.4	676177.6
J12	1190267.4	677429.3	P1	1189767.5	676621.1	V6	1190394.4	676215.0
J13	1190331.9	677467.6	P2	1189833.5	676656.6	V7	1190459.3	676252.5
J14	1190396.4	677505.9	P3	1189899.5	676692.2	V8	1190524.3	676289.9
K2	1189655.1	676985.9	P4	1189965.6	676727.8	V9	1190589.3	676327.4
K3	1189721.0	677021.5	P5	1190029.2	676765.0	W2	1190171.9	676000.2
K4	1189787.0	677057.2	P6	1190094.2	676803.2	W3	1190236.9	676037.7
K5	1189851.5	677095.4	P7	1190162.5	676842.1	W4	1190301.9	676075.1
K6	1189916.0	677133.7	P8	1190227.2	676880.4	W5	1190366.8	676112.6
K7	1189980.5	677171.9	P9	1190291.5	676918.7	W6	1190431.8	676150.1
K8	1190045.0	677210.2	P10	1190355.8	676956.6	W7	1190496.8	676187.5
K9	1190109.5	677248.5	P11	1190420.4	676995.2	X16	1189627.8	676170.3
K10	1190174.1	677286.8	P12	1190484.9	677033.3	X17	1189699.4	676147.9
K11	1190238.6	677325.0	P13	1190549.6	677071.5	Y16	1189605.4	676098.6
K12	1190303.1	677363.3	P14	1190609.9	677109.3	Y17	1189677.0	676076.3
K13	1190367.6	677401.5	Q1	1189882.1	676352.6	Z16	1189583.1	676027.0
K14	1190432.1	677439.8	Q2	1189947.1	676390.1	Z17	1189654.8	676004.7
K15	1190496.6	677478.1	Q3	1190012.1	676427.5	AA16	1189560.9	675955.4
L2	1189690.8	676919.9	Q4	1190077.1	676465.0	AA17	1189632.5	675933.1
L3	1189756.8	676955.6	Q5	1190142.0	676502.4	BB16	1189538.6	675883.8
L4	1189822.6	676991.2	Q6	1190207.0	676539.9	BB17	1189610.3	675861.5
L5	1189887.3	677029.4	Q7	1190272.0	676577.4	CC15	1189444.8	675834.4
L6	1189951.8	677067.6	Q8	1190337.0	676614.8	CC16	1189516.4	675812.1
L7	1190016.3	677105.9	Q9	1190402.0	676652.3	CC17	1189587.9	675789.9
L8	1190080.8	677144.2	Q10	1190466.9	676689.8	DD16	1189494.0	675740.6
L9	1190145.3	677182.4	Q11	1190531.9	676727.2	DD17	1189565.6	675718.3

**DRAFT**

**6. HARBOR MANAGEMENT IMPLEMENTATION AND REGULATIONS**

**6-1 GENERAL PROVISIONS**

**6-1.1** The provisions of this chapter will be incorporated, where appropriate, in a City ordinance as provided by Article V, Section 14 of the City of Groton Charter, effective ~~December XX 2006~~.

**6-1.2 Applicability** The provisions of this chapter and any rules and regulations adopted pursuant thereto shall be applicable, and shall govern the use of harbor lands, waters, and facilities under the jurisdiction of the City of Groton Harbor Management Commission. The ordinance shall be subordinate to all existing federal and state statutes and regulations affecting the City of Groton, and is not intended to preempt any other valid laws. The Harbor Management Commission may from time to time amend the following rules and regulations in accordance with the procedures for harbor management plan modifications in the Harbor Management Act.

**6-1.3 Authorities** The City of Groton Harbor Master, or his or her designee, under the direction of the City of Groton Harbor Management Commission, shall have the authority to carry out harbor management directives and enforce all provisions of the Harbor Management Plan, including the ordinance. The harbor master, or his or her designee, may cite any alleged violators of the ordinance.

**6-1.4 Violations** Any violation of the ordinance shall be a municipal infraction and a fine not to exceed \$100.00 shall be imposed for each conviction hereunder. Each day in violation shall be considered a separate, repeat offense and subject to separate citations. A fine not to exceed \$100.00 shall be imposed for each repeat offense.

**6-1.5 Water Use Plan** The Water Use Plan, Chapter 5 of the Harbor Management Plan, is hereby incorporated in the ordinance by reference. It indicates the geographic locations where the various provisions of the ordinance apply.

**6-1.6 Harbor Management Fund** A Harbor Management Fund will be created to receive and expend monies for harbor management purposes determined by the Harbor Management Commission. All revenues generated by (1) permits, if a fee for mooring permits is approved, and (2) fines levied under the provisions of the Harbor Management Ordinance shall be deposited into this fund. Funds shall be disbursed for purposes directly associated with the management of the waters of the City of Groton and implementation of the City of Groton Harbor Management Plan. Monies from this fund may be allocated to the Harbor master, or his or her designee, for the purpose of enforcing the provisions of the City of Groton Harbor Management Plan and/or the Harbor Management Ordinance. The Harbor Management Fund shall be established, budgeted, and administered in a manner consistent with the procedure contained within the City of Groton Charter and Connecticut General Statutes Section 22a-113s.

**6-1.7 Amendment Procedure** A modification to the plan may be proposed at any time and shall be approved in the same manner as the original plan. To begin this process, the proposed modification shall be presented to the Harbor Management Commission. The plan shall be reviewed annually by the commission and the Commissioners of Environmental Protection and Transportation pursuant to Section 22a-113m of the Harbor Management Act.

## 6-2 FEES

6-2.1 The Harbor Management Commission shall set a schedule of fees for mooring permits, pursuant to Section 22a-113s of the Connecticut General Statutes.

6-2.2 The fee schedule shall be set by the Harbor Management Commission by November 10th. If the schedule is not set by November 10th, the previous year's fee schedule shall govern until the next season.

6-2.3 There shall be no fee for properly authorized swimming rafts or governmental moorings.

6-2.4 Fees shall be collected by the Harbor Master and deposited to the General Fund of the City of Groton.

6-2.5 Funding of the Harbor Management Commission shall be provided for in accordance with the budgeting process of the City of Groton.

## 6-3 HARBOR REGULATIONS

These regulations are designed to regulate activities in the waters of the City of Groton. The Harbor Management Commission may from time to time amend the following rules and regulations, however, the Harbor Management Commission cannot amend state regulations.

6-3.1 Wake Regulations Vessels are to operate in accordance with state regulation Sec. 15-121-B15l. Pine Island Bay and Baker Cove Regulation.

Effective May 19, 1994

On the waters of Pine Island Bay and Baker Cove, both located in the City of Groton and the Noank section of the Town of Groton bounded on the west by a line extending from the southernmost point of Avery Point to the westernmost point of Pine Island and bounded on the east by a line extending from the southernmost point of the east bank of Baker Cove to the westernmost point of Bushy Point, the following restrictions shall apply from the fifteenth day of May through the fifteenth day of September:

- (a) All motorboats shall be operated at SLOW - NO - WAKE [with minimum wake, at a speed not to exceed six miles per hour];
- (b) No person shall water-ski and no person shall operate a vessel towing a water-skier.

6-3.1.1 Slow No Wake A vessel shall not produce more than a minimum wake and shall not attain speeds greater than 6 miles per hour over the ground unless a higher minimum speed is required to maintain steerageway when traveling with a strong current.

6-3.2 Speed Regulations Vessels are to operate in accordance with state regulations Sec. 15-121-B14. Restricted speed limit.

Effective November 5, 1991

(a) [Except as provided in Section 15-121-A15(a)(4), no] NO person shall operate a motorboat at a speed in excess of [six miles per hour] SLOW - NO - WAKE within one hundred feet of shore, or of a dock, pier, float, or anchored or moored vessel, unless such

## DRAFT

motorboat is approaching such float, dock or shore for the purpose of enabling a person engaged in waterskiing to take off or land.

(b) The commissioner may temporarily limit vessel speed to SLOW -NO - WAKE in a construction area. Uniform state waterway marking system controlled area regulatory markers may be placed to indicate the SLOW - NO - WAKE area.

(c) Violation of subsection (a) of this section shall be an infraction.

(d) This section shall not preempt town ordinances or regulations which are adopted in accordance with Section 15-136 of the Connecticut General Statutes and which have more stringent speed limits or distance from shore limits.

**6-3.3 Waterskiing Regulations** Waterskiing is to be performed in accordance with state regulations.

**6-3.4 Motor Regulations** The use of motors may cause environmental damage or safety hazards in some areas; therefore, characteristics and use of motors are regulated. Pursuant to Connecticut General Statutes Section 15-136, ordinances pertaining to operation of vessels must be approved by DEP after local adoption.

**6-3.4.1** Given the fragile nature of the habitat and the potential for wetland destruction, the use of an internal combustion engine to power any vessel is prohibited in Birch Plain Creek, north of the Providence and Worcester railroad bridge, with the exception of Law Enforcement Vessels. The use of battery powered electric motors is permitted.

**6-3.5 Noise Abatement** This prohibition includes, but is not limited to, operating a motor boat without an adequate muffler as provided under Connecticut General Statutes Section 15-129, loud offensive language or behavior, and playing of radios, musical instruments or other noise producing devices so loudly as to constitute a nuisance. No person shall leave a vessel without securing all halyards and other noise producing objects in such a manner as will effectively prevent the production of noise under all reasonably foreseeable conditions.

**6-3.6 Discharge of Refuse** The provisions of Connecticut General Statutes Section 22a-250, inclusive, shall be strictly enforced with respect to discharge of refuse.

**6-3.7 Marine Sanitation Device** The provisions of Connecticut General Statutes Sections 15-170 through 15-175, inclusive, shall be strictly enforced with respect to marine toilets.

**6-3.8 Mooring Allocation/Assignment** Pine Island Bay Mooring Grid is shown on Page 40 of this Plan. As per US Army Corps of Engineer's Permit #1990-00882 and Connecticut DEP Permit # 199500782-KH, those moorings inside the area shown in their permit are assigned to the Shennecossett Yacht Club for use by their members. Two moorings in the southern portion are to be designated "Transient Moorings". As per US Army Corps of Engineer's Permit #1982-00251 and Connecticut DEP Permit # 199600496-SG, those moorings inside the area shown in their permit are assigned to Pine Island Marina for its use by their customers. Individual assignment of these moorings will be controlled by Shennecossett Yacht Club and Pine Island Marina respectively. A single mooring permit is issued by the Harbormaster to Pine Island Marina with the total number of locations assigned to it. To obtain mooring space in Shennecossett Yacht Club a mooring space application must be submitted to the City of Groton harbor master and a copy must be submitted to the Shennecossett Yacht Club Mooring Committee. All other moorings will be individually assigned to the General Public.

**6-3.8.1** The Eastern Point mooring area, as shown on the Water Use Plan, will be reserved for the general public and a separate waiting list will be established if required.

**6-3.8.2** Moorings location, scope length, and minimum ground tackle are regulated to avoid impediments to navigation as well as moored boats interfering with each other. Locations where moorings are permitted are shown on the Water Use plan maps.

**6-3.8.3** No mooring is to be placed in the waters of the City of Groton without a permit from the City of Groton Harbor Master. Moorings will be assigned without regard to residency.

**6-3.8.4** Any mooring buoys so permitted by the Harbor Master must be in compliance with the shape, color and layout as required under existing Regulations of Connecticut State Agencies (RSCA) Sec.15-121-A3(a).

**6-3.8.5** Any mooring permit granted by the City of Groton Harbor Master shall expire on December 15th in the year of its issue.

**6-3.8.6** Application to the Harbor Master must be made on a form provided by the Harbor Master annually.

**6-3.8.7** Upon granting a mooring permit, the Harbor Master shall send the permit to the applicant at the address shown on the permit application.

**6-3.8.8** Any time a mooring location is eliminated due to improvements, expansions, etc., the persons holding a General Public Permit on said mooring will immediately move to the top of the mooring waiting list. Those that are Commercial or Yacht Club will absorb the loss without replacement.

**6-3.8.9** Fees shall be set by the Harbor Management Commission no later than November 10th for the following year.

**6-3.8.10** Applications may be made to the harbor master after December 1st. Applications for mooring permits will only be accepted for Connecticut registered vessels or documented vessels with a Connecticut certification decal. Connecticut vessels legally exempt from registration may also be granted mooring permits. Subleasing or long term loaning of a mooring to other than the designated permittee is prohibited.

**6-3.8.11** Any applicant denied a permit may, at his option, have his name placed on a waiting list which shall be kept by the City Clerk, acting as the agent for the Harbor Master. This list shall be available to the general public during normal working hours.

**6-3.8.12** No name shall be placed on the waiting list unless an application has been received.

**6-3.8.13** If a suitable mooring becomes available the Harbor Master will notify the applicant. The applicant will have 30 days to make payment for the mooring permit. Upon payment for the mooring permit the Harbor Master will issue the permit. If the applicant fails to pay for the mooring permit no permit will be issued and the applicant will lose his place on the waiting list and go to the bottom of the list.

**6-3.8.14** Beginning January 10th the Harbor Master shall fill available General Public mooring locations in the following order of priority:

- a. Applications from shorefront property owners whose land abuts the waterway in which the mooring is to be placed. This priority classification is usable for only one mooring per property.
- b. Previous year permits shall be renewed upon application, unless unused for more than one season by the permittee.

**DRAFT**

- c. Applications from private individuals.
- d. Additional applications from clubs, associations, or marinas whose property abuts the waterway in which the mooring is placed. These permits shall be limited to one year and will not have the rights outlined in section 6-3.8.14 b.

**6-3.8.15** Commercial mooring fields require a Corps of Engineers Permit under Section 10 of the Rivers and Harbors Act of 1899 and a Connecticut Department of Environmental Protection Permit. The Harbor Master will use his judgment in cases where he considers that mooring locations are a threat to public safety. Private moorings that are located in Federal Navigation Projects, associated with any boating facility or that may interfere with navigation need to be approved by the Corps of Engineers

**6-3.8.16** In granting applications, the Harbor Master shall consider:

- a. The priority list
- b. Whether a suitable mooring location is available as to length of boat, type of boat, weight of boat, displacement and draft of boat.
- c. The Harbor Master will be afforded reasonable discretion in enforcing these allocations/assignments for unusual or special circumstances such as extremely deep draft, use by handicapped and abutting property owners.

**6-3.8.17** Available moorings shall be offered to the senior applicant on the mooring list, subject to the constraints contained in these regulations. If the available mooring location is not suitable to accommodate the senior applicant's vessel or specific needs, it shall be offered to the next senior qualified applicant. The senior applicant shall retain his or her place on the waiting list in this case. The Harbor Master shall continue efforts to provide a suitable mooring location for the senior applicant. If the senior applicant refuses a mooring location which is suitable for his or her vessel in the opinion of the harbor master, the person shall be moved to the bottom of the waiting list.

**6-3.8.18** Moorings in Pine Island Bay shall be set on the grid points of the plan contained in the Harbor Management Plan and made part of this ordinance by reference. The grid points are on 75 foot centers. The scope length must be 45 feet.

**6-3.8.19** Minimum mooring tackle requirements.

- a. Minimum size for anchors and chains are given in the following table of specifications:

<u>Boat Length Overall</u>	<u>Minimum Mushroom Weight</u>	<u>Min Size of 1st 15 ft of Chain</u>	<u>Min Size of 2nd 15 ft of Chain</u>	<u>Min Size of 15 ft Polyester Pendant Diameter</u>
Under 15'	75#	1/2"	1/4"	3/8"
15' to 20'	100#	5/8"	5/16"	3/8"
20' to 25'	150#	3/4"	3/8"	1/2"
25' to 30'	200#	7/8"	7/16"	5/8"
30' to 35'	250#	1"	1/2"	3/4"
Over 35'	300#	1"	1/2"	7/8"

b. Minimum scope length is set by the Harbor Management Commission for mooring grid purposes or six times the depth at the anchor at mean low water at the discretion of the harbor master.

c. These minimum requirements do not mean that the required tackle is adequate for any boat. They are intended to provide a minimum standard reasonable for most conditions, but not to guarantee safety under extreme conditions. The City assumes no responsibility for these requirements.

d. Newer type anchoring systems may be used in lieu of a mushroom anchor with the approval of the Harbor Master.

**6-3.8.20** All mooring tackle shall be inspected to ascertain that adverse impacts to the benthic environment and organisms, including eelgrass beds, are minimized. The inspection of moorings in Pine Island Bay will be at a time interval determined by the Harbor Master. Method of inspection of mooring will be as deemed appropriate by the Harbor Master. Possible solutions to problems found during inspection include removal of the offending mooring, alternate tackle (such as a screw mooring), or relocation of the mooring to avoid the adverse impact to eelgrass. Primary responsibility for compliance with such orders and directions shall rest with the owner of the improperly anchored or moored vessel or his authorized agent

**6-3.8.21** Moorings may not be located in a Federal Navigational Channel or other channels fairways under the control of the Harbor Master. Private moorings that are located in Federal Navigation Projects, associated with any boating facility or that may interfere with navigation, need to be approved by the Corps of Engineers.

**6-3.8.22** The Harbor Master may order any unpermitted mooring, or mooring interfering with a fairway, channel, or other permitted mooring, removed at the owner's expense. If ownership of said removed mooring is undetermined ninety (90) days after removal, the Harbor Master may sell said mooring tackle with the receipt being deposited to the Harbor Management Fund after expenses are paid.

**6-3.8.23 Correcting an Unsafe Anchorage or Mooring:** If any vessel shall be found in the judgment of the Harbor master to be anchored or moored within any harbor or maritime facility in an unsafe or dangerous manner, or in such a way as to create a hazard to other vessels or to persons or property or cause water pollution, the Harbor Master shall order and direct necessary measures to eliminate such unsafe or dangerous condition. Primary responsibility for compliance with such orders and directions shall rest with the owner of the improperly anchored or moored vessel or his authorized agent; in the absence of such owner or agent, said responsibility shall rest with the authorized operator of the vessel or the facility at which the vessel is anchored or moored. In an emergency situation and in the absence of any such responsible person, the Harbor master shall forthwith board such vessel and cause the improper situation to be corrected, and the owner of the vessel shall be liable for any costs incurred by the Harbor Master or his agents in effecting such correction.

**6-3.8.24 Unseaworthy Vessels:** No person shall secure or permit to be anchored or moored in a harbor, waterway, or maritime facility a vessel of any kind whatsoever which the harbor master considers unseaworthy or in a badly deteriorated condition, or which is likely to sink or to damage docks, wharfs, floats, and/or other vessels, or cause water pollution, or which may become a menace to navigation. Such vessels shall be removed from the water and/or be otherwise disposed of as directed by the Harbor Master per Connecticut General Statutes Section 15-11a.

**6-3.8.25** There are to be no general public moorings placed in Baker Cove, Calf Pasture Cove, or Birch Plain Creek for reasons of navigation and potential environmental damage. However, to allow shorefront property owners to retain use of their property for boats that may not be

## DRAFT

appropriately stationed at a pier or dock, shorefront property owners along Baker Cove may be allowed 1 mooring to be placed directly in front of their property, if this is the most appropriate means of riparian or littoral access. This mooring may only be used if the swing of the moored boat does not interfere with riparian access.

### **6-4 TRANSIENT BOATS**

Two Shennecossett Yacht Club moorings are designated for transient use.

Transients may anchor or use transient moorings as they become available. The Harbor Master will monitor demand for transient moorings and will recommend to the Harbor Management Commission the number of required moorings and the areas they should be placed on an annual basis. All anchorages and moorings for transients are on a first come, first serve basis and may be assessed a usage fee for use of a mooring, if so established by the Harbor Management Commission.

**6-4.1 Transient Moorings** May be used for three consecutive days or extended with approval of the Harbor Master.

**6-4.2** Both Shennecossett Yacht Club and Pine Island Marina, through their respective dock masters, provide mooring facilities for transient boaters by utilizing moorings that are not occupied by the assigned vessel for short periods.

### **6-5 DEFINITIONS**

**6-5.1 Anchoring:** A boat is anchored when it “rides” or “lays” to a single anchor rode, although it is conceivable to have 2 anchors in tandem on that rode.

**6-5.2 Channel:** refers to any water areas officially marked and maintained to permit unobstructed movement of vessels.

**6-5.3 Coastal Boundary** refers to the boundary as defined in Connecticut General Statutes (CGS Section 22a-94 (current January 1, 2003)). Within the coastal area, there shall be a coastal boundary which shall be a continuous line delineated on the landward side by the interior contour elevation of the one hundred year frequency coastal flood zone, as defined and determined by the National Flood Insurance Act, as amended (USC 42 Section 4101, P. L. 93-234), or a one thousand foot linear setback measured from the inland boundary of tidal wetlands mapped under section 22a.20, whichever is farthest inland; and shall be delineated on the seaward side by the seaward extent of the jurisdiction of the state.

**6-5.4 Commercial Mooring:** refers to those moorings that are rented or leased.

**6-5.5 Dockmaster** refers to the official designated by the owner[s] or decision-making body of a public, private or commercial enterprise that offers dock space or moorings.

**6-5.6 Fairway** The parts of a waterway kept open and free of all moorings and reserved for the unrestricted movement of vessels. This is a locally designated fairway and not federally designated nor protected by government policies.

**6-5.7 Federal Emergency Management Agency National Flood Insurance Program.**

A1 – A30 Zones	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
----------------	---

B Zones Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

V1 – V30 Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

**6-5.8 General Public Mooring:** refers to those moorings reserved for the general public.

**6-5.9 HMA. The Harbor Management Act:** The legislation contained with the state of Connecticut General Statutes, Sections 22a-11k through 22a-113t and as may be amended.

**6-5.10 HMC. The Harbor Management Commission:** The local municipal commission established under and carrying out the responsibilities authorized by the Connecticut Harbor Management Act.

**6-5.11 Harbor Master:** a person appointed by the Governor pursuant to Connecticut General Statutes Section 15-1, who is charged with the general care and supervision of their waters of jurisdiction under the supervision of the Department of Transportation. Among their main responsibilities, is keeping channels and established fairways clear of obstructing vessels. The Harbor Masters authority to issue mooring permits is derived from Connecticut General Statutes Section 15-8. Harbor Masters are ex officio members of any Harbor Management Commission, and are required to exercise their authority consistent with an approved Harbor Management Plan, adopted pursuant to Connecticut General Statutes Section 22a- 113m, where one exists.

**6-5.12 Moor:** To secure a vessel to a mooring

**6-5.13 Mooring:** Permanent moorings are variations on the anchoring theme wherein the boat is secured in place by means of a ground tackle which is normally not part of the boat's on-board equipment. The single point mooring concept is similar to anchoring in that the boat is allowed to swing with wind and current, but it has the convenience of the operator' or crew not having to handle heavy ground tackle on board the boat.

**6-5.14 Mooring Tackle:** refers to the hardware and cordage used to secure a vessel at a mooring.

**6-5.15 Open-to-All on Equal Terms:** Federal navigation projects must be managed in the general public interest and must be accessible and available to all on equal terms. Any number of approaches may be used to assure that all citizens desiring mooring or other access to the projects are treated impartially; it is not the Federal Government's intention to prescribe specific procedures.

A management system shall be considered acceptable provided that it:

- Makes no arbitrary distinction or requirement of any kind in allocating use of the project and ancillary facilities and services to the public except as may be consistent with the purpose for which the project was constructed.
- Does not impose arbitrary fees or arbitrary variations in fees among users. The cost of providing necessary management and ancillary facilities and services may be offset through equitable user fees based on the actual costs incurred.

## DRAFT

- Information pertinent to harbor management - including but not limited to rules and regulations, lists of mooring holders, waiting lists, and fee schedules - shall be readily available to the public at all times.

**6-5.16 Small Craft:** a vessel 65 feet or less in length.

**6-5.17 Special Anchorage Area:** areas where vessels under 20 meters in length are not required to exhibit anchor lights, day shapes, or sound fog signals as required by the Inland Rules.

**6-5.18 Speed** The rate which a vessel transits the water.

**6-5.19 Transient Anchorage:** refers to any area reserved and designated on the Water Use Plan for the exclusive short term use of commercial and recreational vessels.

**6-5.20 Vessel:** refers to every description of watercraft, other than a seaplane on water, used or capable of being used as a means of transportation on water.

**6-5.21 Wake:** Waves caused by the passage of a vessel through the water. These waves are a function of water displaced by the vessel and are generally unrelated to excessive speed.

**6-5.22 Water-dependent uses:** means those uses and facilities which require direct access to, or location in, marine or tidal waters and which therefore cannot be located inland, including but not limited to; Marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyards and boat building facilities, water-based recreational uses, navigational aides, basins and channels, industrial uses dependent upon water-borne transportation or requiring large volumes of cooling or process water which cannot reasonably be located or operated at an inland site and uses which provide general public access to marine or tidal waters.

## APPENDIX A

### PERMIT AND REGULATORY AUTHORITIES

#### A-1 GENERAL

This Appendix lists the local, federal and state regulatory agencies with which the Harbor Management Commission must coordinate their activities in the administration of the Harbor Management Plan and Harbor Management Ordinance.

In addition to the ordinary coordination activities which might be assumed to take place with respect to other local boards, commissions and agencies, Section 22a-113p of the Connecticut General Statutes enables the Harbor Management Commission to establish a procedure to review waterfront development proposals which are submitted to other municipal agencies. The statutes, among other provisions, requires such agencies to send a copy of any proposals to the Commission for review, and requires that the agency consider the Harbor Management Commission's recommendations. Thus, the list of local regulatory agencies is a first step in establishing this review process.

#### A-2 LOCAL REGULATORY AGENCIES:

##### BEACH AND PARK COMMITTEE:

This Committee manages the Eastern Point Beach as well as other City recreation areas. It will thus interface directly with the Harbor Management Commission on the Plan for the beach.

##### CITY OF GROTON UTILITIES COMMISSION:

This body manages water supply, sewage disposal and electric power systems.

The Commission is overseen by the Mayor and Council. In the case of the sewage disposal system, the Mayor and Council act as the Water Pollution Control Authority. The impact of the Utilities Commission on the Harbor Management Plan is indirect, but could be felt.

##### CONSERVATION AND INLAND WETLANDS COMMISSION:

The Conservation Commission serves as an advisory body to the Mayor and Council, Planning and Zoning Commission, and other City agencies as appropriated on conservation matters. The Commission has a second function which is to regulate development in inland wetlands within the City, which it does through the issuance of permits. The Commission will interface with the Harbor Management Plan in areas of the harbor that require conservation input.

**Plans and Regulations:** City of Groton Inland Wetlands Regulations

##### Town of Groton Shellfish Commission:

This agency has regulatory responsible for shell fishing affairs and permitting.

**Eastern Point Historic District Commission:**

This agency reviews proposed changes to buildings within its jurisdiction in Eastern Point. The purpose of the commission is to retain, promote and enhance the distinct characteristics of the Eastern Point neighborhood.

**Harbor Management Commission:**

The Commission is preparing a Harbor Management Plan for the City and, when that Plan is adopted, will have the responsibility of administering and updating it when required. Actual implementation of the Plan will require coordinated action by several persons and agencies, including the Mayor and Council, Police Department and the Harbor Master.

**Plans and Regulations** Harbor Management Plan

**Harbor Master:**

The Connecticut General Statutes (CGS Section 15-1) mandate that harbor masters have "general care and supervision of the harbors and navigable waterways over which they have jurisdiction.... and shall exercise their duties in a manner consistent with any Harbor Management Plan..." This means that the harbor master will be the enforcement officer for the Harbor Management Commission in administration of the Plan.

**Mayor and Council:**

The Mayor is the Chief Executive of the City and acts as moderator of the City Council meetings. The Mayor is not a voting member of the Council, but does vote to break a tie. The six member council is the legislative authority for the City. The Council also serves as the City's Water Pollution Control Authority.

The Mayor and Council, as the executive and legislative bodies of the municipal government, will have an impact on the Harbor Management Plan through the adoption and administration of ordinances regulating activities and concerns within the harbor.

The Water Pollution Control Authority oversees the operation of and improvements to the sewage treatment plant. This plant is located on the waterfront, and thus will have to be considered in the Harbor Management Plan.

**Plans and Regulations:** The City's Charter and Ordinances

**Planning and Zoning Commission and Zoning Board of Appeals:**

These agencies perform the planning and zoning functions for the City. The authority of the Planning and Zoning Commission extends to the waterfront. The Planning and Zoning Commission and the Zoning Board of Appeals perform Coastal Site Plan reviews for

properties within the coastal zone. Also, construction of structures in the floodable areas as shown on the Flood Insurance Rate Map of the City are subject to additional regulation by the Planning and Zoning Commission. Generally, the floodable areas are adjacent to waters which will be regulated by the Harbor Management Plan. Many forms of development, marinas for example, will come under the cognizance of the Harbor Management Commission as well as under that of the Planning and Zoning Commission or Zoning Board of Appeals.

**Plans and Regulations:** Plan of Development, Municipal Coastal Program, Thames Street Study, Thames Street Beautification Program Report, Zoning Regulations, and Subdivision Regulations

**Police Department:**

In addition to its shoreside law enforcement duties, the Police Department currently patrols the waters of the City and has the responsibility for enforcing City Ordinances in waterfront areas. Thus, they will play a role in the administration of any Ordinances which are adopted pursuant to the Plan.

**A-3 STATE AND FEDERAL REGULATORY AGENCIES:**

Listed below are the agencies which regulate, or in some way oversee, harbor activities. These are organized by the types of regulations for which each agency is responsible. This list was taken from the Model Municipal Harbor Management Plan published by the Office of Long Island Sound Programs of the Connecticut Department of Environmental Protection.

An asterisk (\*) indicates that a permit or approval may be required. Individuals are advised to contact the agency for further clarification.

CGS means Connecticut General Statutes

USC means United States Code

CFR means Code of Federal Regulations

**Aids to Navigation/Buoys/Markers:**

Federal: \*Section 10 of Rivers and Harbors Act of 1899, structures in navigable waters of the U.S., (Corps) \*14 USC 83 and 33 CFR et seq., aid registration, (Coast Guard)

State: Section 15-121 CGS, recreational boating (DEP-BS&WS) Section 15-25 CGS, injuring, interfering with buoys, etc. (ConnDOT)

**Anchorage:**

Federal: \*Section 10 of Rivers and Harbors Act of 1899, federal maintenance in navigable waters of the U.S., (Corps) \*33 CFR 110.1, Subpart A, special anchorages (Coast Guard)

State: \*Section 15-8 CGS, use of, (Local harbor masters)

**Aquaculture see Shellfisheries**

**Beach Erosion:**

Federal: Section 103 of Rivers and Harbors Act of 1962, small beach erosion control projects, (Corps)

State: Section 25-69 through 83 CGS, State assistance for projects (DEP-WRU)  
Sections 22a – 359 through 22a – 363f CGS, violation in structures, dredging or filling, (DEP-OLISP)  
Sections 22a-90 through 22a-112 CGS, all state plans and Coastal Management Act (DEP-OLISP)

Local: Section 25-84 through 98 CGS, municipal Flood and Erosion Control Board, (local commission)

**Boating:**

Federal: 46 USC 25 and 33 CFR Parts 1-199, safety (Coast Guard)

State: Section 15-121 CGS, administration, (DEP-BS&WS)  
\*Section 15-127 through 15-140d CGS, safety (DEP- BS&WS and LE)  
Section 15-16 CGS, Speed, (DEP-BS&WS and LE)  
\*Section 15-136 CGS, local ordinances proposed by selectpersons, subject to DEP approval, (DEP-BS&WS)  
\*Sections 15-141 through 157 CGS, registration of boats, (DMV)  
Section 15-121 CGS, Safety and Security Zones

**Bridges see Structures**

**Buoys see Aids to Navigation, etc.**

### **Channels:**

Federal: Section 107 of River and Harbor Flood Control Act of 1960, small public navigation projects, (Corps)

\*Section 10 of Rivers and Harbors Act of 1899, construction and maintenance in navigable waters of the U.S. (Corps)

State: Sections 22a-340 and 386 CGS, layout, (DEP-WRU)

\*Section 22a-361 CGS, construction and maintenance of non-federal channels, (DEP-OLISP)

### **Discharges:**

Federal: Many authorities have been delegated to state under federal law

State: \*Sections 22a-416 through 22a-471, regulation of water pollution, (DEP-WRU) Sections 22a-448 through 22a-452, oil spills, (DEP-WRU)

\*Section 401 of the Clean Water Act, Water Quality Certificate, (DEP-OLISP)

Section 22a-430, point-source discharge, see also NPDES, (DEP-WRU)

Sections 15-170 through 15-176, discharge of sewage from vessels (DEP-WRU)

Section 22a-430b CGS General Permit for the discharge of stormwater associated with industrial activities (DEP-WRU)

### **Docks see Structures**

### **Dredging/Dredged Material Disposal:**

Federal: \*Section 103 of Marine Protection, Research and Sanctuaries Act of 1972, ocean dumping of dredged material, (Corps)

\*Section 404 of Clean Water Act, in all waters of the U.S. (Corps)

\*Section 10 of Rivers and Harbors Act of 1899, in navigable waters of the U.S. (Corps)

State: \*Section 22a-359 through 363f CGS, for navigation, (DEP-OLISP)

\*Section 401 of Clean Water Act, Water Quality Certificate, see also Section 22a-430 CGS, (DEP-OLISP)

\*Sections 22a-28 through 35 CGS, in tidal wetlands, (DEP-OLISP)

\*Sections 22a-36 through 45 CGS, in inland wetlands and watercourses, (DEP-WRU)

### **Enforcement:**

Federal: Corps and Coast Guard enforce the federal laws, usually enforcement authorities are not delegated to state or local agents.

State: Violations are pursued under the same statutory authority that regulates the activity. For example, some of the state statutory authorities are listed below.

Section 15-121 through 157 CGS, state boating statutes, (Section 15-154 CGS) can be enforced by DEP or POST trained and certified harbor master, POST trained and certified deputy harbor master, conservation officer, special conservation officer,

state police officer, municipal police officer, special police officer (under Section 29-18 through 19 CGS), volunteer police auxiliary force (under Section 29-22 CGS), and town marine officers (appointed under Section 15-15a CGS), (DEP-LE and DEP-BS&WS))

Sections 22a-416 through 471 CGS, enforcement authority for water pollution control, (DEP-WCU) Sections 22a-36 through 45, (DEP-IWRMD), Sections 22a-28 through 35, Sections 22a-359 through 361, Sections 22a-383 through 390 CGS, violation in structures, dredging or filling, (DEP-OLISP) Sections 26-205 through 206 CGS, violation of shellfish laws, (Aquaculture)

Local: Section 26-6a CGS, constables for fish and game protection (local appointment)  
Section 15-8 CGS, location of vessels in harbor, (local harbor master)

### **Filling:**

Federal: \*Section 10 of Rivers and Harbors Act of 1899, in navigable waters of the U.S., (Corps)  
\*Section 404 of Clean Water Act, in all waters of the U.S. (includes wetlands), (Corps)

State: \*Section 22a-359 through 363f CGS, in coastal, tidal or navigable waters (DEP-OLISP)  
\*Section 22a-36 through 45 of CGS, in inland wetlands and watercourses (DEP-WRMD)  
(local wetlands agency)  
Section 22a-28 through 35 of CGS, in tidal wetlands (DEP-OLISP)

### **Fish and Game Refuges:**

State: Sections 26-99 through 107 CGS, establishment of boundaries, restrictions on hunting, fishing, etc. (DEP- WILDLIFE) Section 26-17a CGS, acquisition and preservation of tidal wetlands (DEP-PROP)

### **Fisheries:**

State: \*Sections 26-142 through 186a CGS, commercial, fishing, recreational fishing, lobstering,  
(DEP-LICENSE) (DEP- FISH)  
Section 26-16 CGS, public hunting and fishing lands and waters, (DEP-WILDLIFE))

### **Floats see Structures**

### **Floodplain Encroachment Lines:**

Local: Section 7-147 CGS, setbacks landward from mean high water line, (local ordinance)

### **Harbor Improvements:**

- Federal: Water Resource Development Act of 1974, federal authorization of improvements (Corps)  
Section 7 of Rivers and Harbors Act of 1915, federal authorization of improvements (Corps)  
Section 107 of River and Harbor Flood Control Act of 1960, redevelopment and construction of small navigation projects (Corps)
- State: Sections 13b-56 and 57 CGS, agencies, plans grants-in-aid, (local agency, with DEP/ConnDOT approval)  
Sections 22a-359 through 22a-363f CGS, violation in structures, dredging or filling, (DEP-OLISP)

### **Harbor Lines:**

- Federal: Section 11 of the Rivers and Harbors Act approved March 3, 1899, (33 U.S.C. 404), authorizes the Secretary of the Army to establish harbor lines channelward of which no piers, wharves, bulkheads, or other works may be extended or deposits made without approval of the Secretary of the Army. Effective May 27, 1970, permits for work shoreward of those lines must be obtained in accordance with Section 10 and, if applicable, Section 404 of the Clean Water Act.
- State: \*Sections 22a-360 CGS, designation, (DEP-OLISP)

### **Harbor Management:**

- State: Sections 22a-113k through 113t CGS, commissions, plans, mooring fees, (DEP-OLISP) (ConnDOT)

### **Harbor Masters:**

- State: Sections 15-1 through 10 and 13b-51 CGS, responsibilities, (ConnDOT)  
Section 15-7 CGS, jurisdiction, powers, duties in Bridgeport only, (harbor master)  
Section 3-125 CGS, Attorney General appearance on behalf of harbor master, (ConnDOT)

### **Houseboats:**

- Federal: See Structures/Bridges/Docks/Floats/Piers
- State: Sections 19a-227 through 230 CGS, limitations on use, (local Director of Health)  
Sections 22a-359 through 22a-363f CGS, violation in structures, dredging or filling, (DEP-OLISP)

### **Land Development/Use on Waterfront:**

- Federal: \*Section 307 of Federal Coastal Zone Management Act, federal activities, federal financial assistance and federal permits must be consistent with Connecticut Coastal Management Program, (DEP-OLISP)  
44 CFR 59 et seq., National Flood Insurance Program, (local ordinance) (DEP-IWRMD)

- State: \*Section 22a-92 through 112 CGS, all state plans and Coastal Management Act, (DEP-OLISP)  
\*Section 25-68b through 68h CGS, state-funded or state-regulated actions in floodplains, (DEP-IWRMD)
- Local: Sections 22a-92 through 112 CGS, activities within town's coastal boundary must be consistent with Coastal Management Act (local land use agencies)  
Variances to local flood regulations and standards must be approved by local zoning boards of appeal and referred to DEP-WRU for approval under Section 743 of the State Building Code  
Section 22a-113p CGS, recommendation by Harbor Management Commission (local Harbor Management Commission)

**Lobstering see Fisheries:**

**Marine Sanitation Devices:**

- Federal: Section 312 of Clean Water Act, (Coast Guard)
- State: Sections 15-121 (b)(8), 15-144(f) CGS, (DEP-LE)  
Sections 15-170 through 15-176, discharge of sewage from vessels (DEP-WCU)

**Markers see Aids to Navigation**

**Moorings:**

- Federal: \*Section 10 of Rivers and Harbors Act of 1899, individual or commercial moorings in navigable waters of the U.S. (Corps)
- State: \*Section 15-8 CGS, individual and/or commercial moorings, separate applications required, (local harbor master)  
Regulations of Connecticut State Agencies (RCSA) Sec. 15-121-A3(a).
- Local: Section 113s CGS, local mooring fee (local harbor master) (Harbor Management Commission)

**Navigation:**

- Federal: 33 USC 164.01 through 164.61, safety, (Coast Guard) Various River and Harbor Acts and Congressional Authorizations, dredging of authorized facilities, (Corps)
- State: Sections 15-1, 15-7b, 15-8 CGS, Harbor Masters (ConnDOT)

**"No Discharge" Zones see Marine Sanitation Devices**

**Obstructions to Navigation:**

Federal: Sections 15, 19 and 20 of the Rivers and Harbors Act of March 3, 1899, as amended by Section 939, Public Law 99- 662 (Water Resources Development Act of 1986)

State: \*Section 15-11a CGS, disposal of old vessels and floating structures, (ConnDOT)  
Section 15-140d CGS, removal of hazardous structures in tidal waters, (ConnDOT)

Local: Section 15-12 CGS, removal of obstructions from water- front land, (local selectmen)

**Piers see Structures**

**Pollution see Discharges**

**Port Authorities:**

State: Sections 7-329a through 7-329f CGS, formation of port authorities

**Public Facilities:**

Local: Section 7-148 CGS, description of municipal powers to develop public facilities

**Races, Regattas, Marine Parades:**

Federal: \*33 CFR 100, permits (Coast Guard)

**Restricted Boating Areas:**

State: \*Section 15-121 CGS, designation of and regulation (DEP- BS&WS)

**Shellfisheries:**

State: \*Sections 26-192 through 237 CGS, state shellfisheries, (Aquaculture)  
Section 19a-95 through 101 CGS, shellfishing closures, (Aquaculture)  
\*Section 22a-361 CGS, erection of structures or placement of fill on oyster grounds (DEP-OLISP)  
Section 22-416 through 418 CGS, State Aquaculture Commission (Aquaculture)

Local: \*Section 26-238 through 294 CGS, local shellfisheries, (local shellfish commission)

**Stream Channel Encroachment Lines:**

State: \*Section 22a-342 through 348 CGS, encroachments in floodways, (DEP-IWRMD)

**Structures/Bridges/Docks/Floats/Piers:**

Federal: \*Section 10 of Rivers and Harbors Act of 1899, in navigable waters of the U.S. (Corps)  
\*Section 404 of Clean Water Act, in all waters of the U.S. (includes wetlands), (Corps)  
\*Section 9 of Rivers and Harbors Act of 1899, bridges, (Coast Guard)  
Houseboats - 33 CFR 322.2 (b) lists structures and includes permanent mooring structures.

Guidelines for the Placement of Fixed and Floating Structures in Navigable Waters of the United States Regulated by the New England Division U.S. Army Corps of Engineers

State: \*Section 22a-359 through 363f CGS, permit (DEP-OLISP) Section 22a-362 CGS, nuisance/violation, (DEP-OLISP)

\*Section 22a-36 through 45 CGS, in inland wetlands, (DEP-WRU) (local wetlands agency)  
Section 22a-28 through 35 CGS, in tidal wetlands (DEP- OLISP)

Local: Planning and Zoning Site Plan and Coastal Site Plan Review

**Swimming Areas:**

Federal: 14 USC 83 and 33 CFR 60 et seq. floats, (Coast Guard)  
\*Section 10 Rivers and Harbors Act, floats, (Corps)

State: \*Section 15-121 CGS, marked swimming areas (DEP-BS&WS)

**Vessels (removal of):**

Federal: Sections 19 and 20 of Rivers and Harbors Act of 1899, removal of wrecks from navigable waters of the U.S. (Corps)

State: Section 15-11a CGS, order for removal of sunken vessels as violation, (ConnDOT/DEP-WRU)  
Section 22a-359 CGS, sunken vessels as encroachments (DEP-OLISP)

Local: Section 15-9 through 11 CGS, moving obstructing vessels, (local harbor masters)

**Waterfront Development see Land Development/Use, etc.**

**Wetlands Activities:**

- Federal: \*Section 404 of Clean Water Act, discharges of dredged or fill material in waters of the U.S. (Corps)
- State: \*Section 22a-28 through 35 CGS, activities in tidal wetlands, determined by vegetation, (DEP- OLISP)  
\*Section 22a-36 through 45 CGS, activities in inland wetlands, determined by soil type (DEP-WRU)  
Section 26-17a CGS, acquisition and preservation of tidal wetlands, (DEP-PROP)
- Local: \*Section 22a-36 through 45 CGS, activities in inland wetlands, determined by soil type, (local inland wetlands agency)

**FEDERAL/STATE AGENCIES  
WITH JURISDICTION OVER HARBOR ACTIVITIES**

Listed below are the agencies which regulate or in some way oversee harbor activities. The agencies are listed alphabetically according to the parenthetical abbreviations found with the statutory references on the previous pages. Contacts and addresses for local commissions, agencies and harbor masters are not listed here but can be obtained by calling the City Clerk.

1. (Aquaculture)  
Connecticut Department of Agriculture  
Aquaculture Division  
190 Rogers Avenue  
P.O. Box 97  
Milford, Connecticut 06460  
203-874-0696
  
2. (Coast Guard)  
U.S. Department of Transportation  
Commander  
Third Coast Guard District  
Governor's Island  
New York, NY 10004  
212-668-7994 bridge permit  
212-668-7193 aids to navigation  
  
Commander  
United States Coast Guard  
Group/Marine Safety Office  
Long Island Sound  
120 Woodward Avenue  
New Haven, CT 06512

Bridge Permits  
First Coast Guard District  
Battery Park Bldg.  
One South Street  
New York, NY 1004-5073  
(212) 668-7195

Mr. John Mauro  
Chief, Waterways management  
First Coast Guard District  
408 Atlantic Avenue  
Boston, MA 02110-3350

Coast Guard Station New London  
C/O Fort Trumbull  
New London, CT. 06320  
(860)442-4471

3. (ConnDOT)  
Connecticut Department of Transportation  
Bureau of Aviation and Ports  
State Pier  
New London, Connecticut 06320  
860-443-3856
4. (Corps)  
U.S. Army Corps of Engineers  
Attn: Regulatory Branch  
696 Virginia Road  
Concord, MA 01742-2751  
1-800-343-4789
5. (DEP-BD)  
Connecticut Department of Environmental Protection  
Bureau of Outdoor Recreation  
Boating Division  
333 Ferry Road  
P.O. Box 280  
Old Lyme, Connecticut 06371-0280  
860-434-8638
6. (DEP MFD)  
Connecticut Department of Environmental Protection  
Bureau of Natural Resources  
Marine Fisheries Division  
Marine District  
333 Ferry Road  
P.O. Box 719  
Old Lyme, CT 06371  
860-434-6043

7. (DEP-IWRMD)  
Connecticut Department of Environmental Protection  
Bureau of Water Protection and Land Use  
Inland Water Resources  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-424-3101
8. (DEP-BOR)  
Connecticut Department of Environmental Protection  
Bureau of Natural Resources  
Bureau of Outdoor Recreation  
Marine Patrol  
Old Lyme Headquarters  
333 Ferry Road  
P.O. Box 280  
Old Lyme, Connecticut 06371-0280  
860-434-9840
9. (DEP-LICENSE)  
Connecticut Department of Environmental Protection  
Office of Financial Management and Information Technology  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-424-3101
10. (DEP-OLISP)  
Connecticut Department of Environmental Protection  
Bureau of Water Protection and Land Use  
Office of Long Island Sound Programs  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-424-3034
11. (DEP-PROP)  
Connecticut Department of Environmental Protection  
Land Acquisition/Property Management  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-424-3016
12. (DEP-WCU)  
Connecticut Department of Environmental Protection  
Bureau of Materials Management and Compliance Assurance  
Water Enforcement and Engineering  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-424-3018

13. (DEP-WILDLIFE)  
Connecticut Department of Environmental Protection  
Bureau of Natural Resources  
Wildlife Division  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-424-3011
  
14. (DEP-WRU)  
Connecticut Department of Environmental Protection  
Bureau of Water Protection and Land Use  
Water Planning and Standards  
79 Elm Street  
Hartford, Connecticut 06106-5127  
860-566-7160
  
15. (DMV)  
Connecticut Department of Motor Vehicles  
60 State Street  
Wethersfield, Connecticut 06109  
860-566-3781

**DRAFT**

**APPENDIX B**

**CITY COUNCIL RESOLUTION OF OCTOBER 1, 1984**

**RESOLUTION OF FINAL APPROVAL OF RENAMING THE  
WATERFRONT COMMISSION FOR THE CITY OF GROTON THE  
CITY OF GROTON HARBOR MANAGEMENT COMMISSION**

**WHEREAS**, P.A. No. 84-247 authorized the establishment of a Harbor Management Commission in the City of Groton and specifically authorized the designation by ordinance of an existing commission to serve as same, and

**WHEREAS**, the City of Groton, pursuant to Ordinance 52, has established a Waterfront Commission for the City of Groton, and

**WHEREAS**, the City of Groton is desirous of establishing a Harbor Management Commission to implement plans for the most desirable use of the harbor, including recreational, commercial and industrial uses,

**NOW THEREFORE BE IT RESOLVED THAT:**

1. The Waterfront Commission of the City of Groton is hereby designated and renamed the City of Groton Harbor Management Commission and shall, in addition to all powers which it currently possesses, hereinafter assume all duties and powers enumerated in "An Act Concerning Harbor Management," Public Act No. 84-247.
2. The Harbor Master of the City of Groton is hereby made a non-voting, ex-officio member of said Commission.
3. The Commission shall have jurisdiction over all property located in the City of Groton between the mean high water mark and the following boundary line:

Beginning at a monument set at the point where the stream leading into Baker Cove, sometimes known as Birch Plain Creek, comes up to the road line of Old Poquonnock Road; thence southerly with the midline of said stream and of Baker Cove to a point due north of a monument on the eastern extremity of Pine Island; thence due south through the Town of Groton; thence west by said south boundary line of the Town of Groton; thence west by said south boundary line to the division line to a point due west from a point on the bank of the Thames River, which point is due west from a monument located at the junction of the north line of Grove Avenue with the east line of Fairview Avenue; thence due east to said point on the bank of the Thames River.

4. All other provisions of Ordinance 52, including the number of the commission, their method of selection, terms of office and procedures for filling any vacancy, are hereby affirmed and continued in full force and effect.

## APPENDIX C

### HARBOR MANAGEMENT PLAN—CITY OF GROTON

#### AN ORDINANCE ADOPTING A HARBOR MANAGEMENT PLAN FOR THE CITY OF GROTON

Be it ordained by the City Council of the City of Groton that the City adopt the plan entitled "City of Groton Harbor Management Plan, December 2006 ("Plan"), prepared by the City of Groton Harbor Management Commission, in accordance with sections 22a-113k, et seq. of the Connecticut General Statutes. Said Plan consists of 53 pages of text, and Appendices A-1 through A-14, B-1, C-1 through C-10 and D-1 through D-7.

#### Article I: GENERAL PROVISIONS

Sec. 1 Title: This Ordinance shall be known as the City of Groton Harbor Management Ordinance.

Sec. 2 Applicability:

#### 2-1 GENERAL PROVISIONS

2-1.1 Applicability. The provisions of this chapter and any rules and regulations adopted pursuant thereto shall be applicable, and shall govern the use of harbor lands, waters, and facilities under the jurisdiction of the City of Groton Harbor Management Commission. The ordinance shall be subordinate to all existing federal and state statutes and regulations affecting the City of Groton, and is not intended to preempt any other valid laws. The Harbor Management Commission may from time to time amend the following rules and regulations in accordance with the procedures for harbor plan modifications in the Harbor Management Act.

2-1.2 Authorities. The City of Groton Harbor Master, or his or her designee, under the direction of the City of Groton Harbor Management Commission, shall have the authority to carry out harbor management directives and enforce all provisions of the Harbor Management Plan, including the ordinance. The Harbor Master, or his or her designee, may cite any alleged violators of the ordinance.

2-1.3 Violations. Any violation of the ordinance shall be a municipal infraction and a fine not to exceed \$100.00 shall be imposed for each conviction hereunder. Each day in violation shall be considered a separate, repeat offense and subject to separate citations. A fine not to exceed \$100.00 shall be imposed for each repeat offense.

2-1.4 Water Use Plan. The Water Use Plan, Chapter 5 of the Harbor Management Plan, is hereby incorporated in the ordinance by reference. It indicates the geographic locations where the various provisions of the ordinance apply.

2-1.5 Harbor Management Fund. A Harbor Management Fund will be created to receive and expend monies for harbor management purposes determined by the Harbor Management Commission. All revenues generated by (1) permits if a fee for mooring permits is approved, and (2) fines levied under the provisions of the Harbor Management Ordinance shall be deposited into this fund. Funds shall be disbursed for purposes directly associated with the management of the waters of the City of Groton and implementation of the City of Groton Harbor Management Plan. Monies from this fund may be allocated to the Harbor Master, or his or her designee, for the purpose of enforcing the provisions of the City of

Groton Harbor Management Plan and/or the Harbor Management Ordinance. The Harbor Management Fund shall be established, budgeted, and administered in a manner consistent with the procedure contained within the City of Groton Charter and Connecticut General Statutes Section 22a-113s.

**2-1.6** **Amendment Procedure.** A modification to the plan may be proposed at any time and shall be approved in the same manner as the original plan. To begin this process, the proposed modification shall be presented to the Harbor Management Commission. The plan shall be reviewed annually by the commission and the commissioners of Environmental Protection and Transportation pursuant to Section 22a-113m of the Harbor Management Act.

**2-2** **FEES**

**2-2.1** The Harbor Management Commission shall set a schedule of fees for mooring permits, pursuant to Section 22a-113s of the Connecticut General Statutes.

**2-2.2** The fee schedule shall be set by the Harbor Management Commission by November 10th. If the schedule is not set by November 10th, the previous year's fee schedule shall govern until the next season.

**2-2.3** There shall be no fee for properly authorized swimming rafts or governmental moorings.

**2-2.4** Fees shall be collected by the Harbor Master and deposited to the General Fund of the City of Groton.

**2-2.5** Funding of the Harbor Management Commission shall be provided for in accordance with the budgeting process of the City of Groton.

**2-3** **HARBOR REGULATIONS**

These regulations are designed to regulate activities in the waters of the City of Groton. The Harbor Management Commission may from time to time amend the following rules and regulations; however, the Harbor Management Commission cannot amend state regulations.

**2-3.1** **Wake Regulations** Vessels are to operate in accordance with state regulation Sec. 15-121-B15l. Pine Island Bay and Baker Cove Regulation.

Effective May 19, 1994

On the waters of Pine Island Bay and Baker Cove, both located in the City of Groton and the Noank section of the Town of Groton bounded on the west by a line extending from the southernmost point of Avery Point to the westernmost point of Pine Island and bounded on the east by a line extending from the southernmost point of the east bank of Baker Cove to the westernmost point of Bushy Point, the following restrictions shall apply from the fifteenth day of May through the fifteenth day of September:

- (a) All motorboats shall be operated at SLOW - NO - WAKE [with minimum wake, at a speed not to exceed six miles per hour];
- (b) No person shall water-ski and no person shall operate a vessel towing a water-skier.

**2-3.1.1 Slow No Wake** A vessel shall not produce more than a minimum wake and shall not attain speeds greater than 6 miles per hour over the ground unless a higher minimum speed is required to maintain steerageway when traveling with a strong current.

**2-3.2 Speed Regulations** Vessels are to operate in accordance with state regulations Sec. 15-121-B14. Restricted speed limit.

Effective November 5, 1991

(a) [Except as provided in Section 15-121-A15(a)(4), no] **NO** person shall operate a motorboat at a speed in excess of [six miles per hour] **SLOW -NO - WAKE** within one hundred feet of shore, or of a dock, pier, float, or anchored or moored vessel, unless such motorboat is approaching such float, dock or shore for the purpose of enabling a person engaged in waterskiing to take off or land.

(b) The commissioner may temporarily limit vessel speed to **SLOW -NO - WAKE** in a construction area. Uniform state waterway marking system controlled area regulatory markers may be placed to indicate the **SLOW - NO - WAKE** area.

(c) Violation of subsection (a) of this section shall be an infraction.

(d) This section shall not preempt town ordinances or regulations which are adopted in accordance with Section 15-136 of the Connecticut General Statutes and which have more stringent speed limits or distance from shore limits.

**2-3.3 Waterskiing Regulations.** Waterskiing is to be performed in accordance with state regulations.

**2-3.4 Motor Regulations** The use of motors may cause environmental damage or safety hazards in some areas; therefore, characteristics and use of motors are regulated. Pursuant to Connecticut General Statutes Section 15-136, ordinances pertaining to operation of vessels must be approved by DEP after local adoption.

**2-3.4.1** Given the fragile nature of the habitat and the potential for wetland destruction, the use of an internal combustion engine to power any vessel is prohibited in Birch Plain Creek, north of the Providence and Worcester railroad bridge, with the exception of Law Enforcement Vessels. The use of battery powered electric motors is permitted.

**2-3.5 Noise Abatement** This prohibition includes, but is not limited to, operating a motor boat without an adequate muffler as provided under Connecticut General Statutes Section 15-129, loud offensive language or behavior, and playing of radios, musical instruments or other noise producing devices so loudly as to constitute a nuisance. No person shall leave a vessel without securing all halyards and other noise producing objects in such a manner as will effectively prevent the production of noise under all reasonably foreseeable conditions.

**2-3.6 Discharge of Refuse** The provisions of Connecticut General Statutes Section 22a-250, inclusive, shall be strictly enforced with respect to discharge of refuse.

**2-3.7 Marine Sanitation Devices:** The provisions of Connecticut General Statutes Sections 15-170 through 15-175, inclusive, shall be strictly enforced with respect to marine toilets.

**2-3.8** **Mooring Allocation/Assignment.** Pine Island Bay Mooring Grid is shown on Page 40 of this Plan. Per U.S. Army Corps of Engineer's Permit #1990-00882 and Connecticut DEP Permit # 199500782-KH, those moorings inside the area shown in their permit are assigned to the Shennecossett Yacht Club for use by their members. Two moorings in the southern portion are to be designated "Transient Moorings". As per U.S. Army Corps of Engineer's Permit # 1982-00251 and Connecticut DEP Permit # 199600496-SG, those moorings inside the area shown in their permit are assigned to Pine Island Marina for its use by their customers. Individual assignment of these moorings will be controlled by Shennecossett Yacht Club and Pine Island Marina respectively. A single mooring permit is issued by the Harbor Master to Pine Island Marina with the total number of locations assigned to it. No mooring permit is issued by the Harbor Master for any moorings in the Shennecossett Yacht Club assigned areas. All other moorings will be individually assigned to the General Public.

**2-3.8.1** The Eastern Point mooring area, as shown on the Water Use Plan, will be reserved for the general public and a separate waiting list will be established if required.

**2-3.8.2** Moorings location, scope length, and minimum ground tackle shall comply with the minimum mooring tackle requirements in Section 2-3.8.19. Locations where moorings are permitted are shown on the Water Use plan maps.

**2-3.8.3** No mooring is to be placed in the waters of the City of Groton without a permit from the City of Groton Harbor Master. Moorings will be assigned without regard to residency.

**2-3.8.4** Any mooring buoys so permitted by the Harbor Master must be in compliance with the shape, color and layout as required under existing Regulations of Connecticut State Agencies (RSCA) Sec.15-121-A3(a).

**2-3.8.5** Any mooring permit granted by the City of Groton Harbor Master shall expire on December 15<sup>th</sup> in the year of its issue.

**2-3.8.6** Application to the Harbor Master must be made on a form provided by the Harbor Master annually.

**2-3.8.7** Upon granting a mooring permit, the Harbor Master shall send the permit to the applicant at the address shown on the permit application.

**2-3.8.8** Any time a mooring location is eliminated due to improvements, expansions, etc., the persons holding a General Public Permit on said mooring will immediately move to the top of the mooring waiting list. Those that are Commercial or Yacht Club will absorb the loss without replacement.

**2-3.8.9** Fees shall be set by the Harbor Management Commission no later than November 10<sup>th</sup> for the following year.

**2-3.8.10** Applications may be made to the Harbor Master after December 1st. Applications for mooring permits will only be accepted for Connecticut registered vessels or documented vessels with a Connecticut certification decal. Connecticut vessels legally exempt from registration may also be granted mooring permits. Subleasing or long term loaning of a mooring to other than the designated permittee is prohibited.

**2-3.8.11** Any applicant denied a permit may, at his option, have his name placed on a waiting list which shall be kept by the City Clerk, acting as the agent for the Harbor Master. This list shall be available to the general public during normal working hours.

**2-3.8.12** No name shall be placed on the waiting list unless an application has been received.

**2-3.8.13** If a suitable mooring becomes available the Harbor Master will notify the applicant. The applicant will have 30 days to make payment for the mooring permit. Upon payment for the mooring permit the Harbor Master will issue the permit. If the applicant fails to pay for the mooring permit no permit will be issued and the applicant will lose his place on the waiting list and go to the bottom of the list.

**2-3.8.14** Beginning January 10<sup>th</sup> the Harbor Master shall fill available General Public mooring locations in the following order of priority.

- a. Applications from shorefront property owners whose land abuts the waterway in which the mooring is to be placed. This priority classification is usable for only one mooring per property.
- b. Previous year permits shall be renewed upon application, unless unused for more than one season by the permittee.
- c. Applications from private individuals.
- d. Additional applications from clubs, associations, or marinas whose property abuts the waterway in which the mooring is placed. These permits shall be limited to one year and will not have the rights outlined in section 2-3.8.14 b.

**2-3.8.15** Commercial moorings require a Corps of Engineers Permit under Section 10 of the Rivers and Harbors Act of 1899 and a Connecticut Department of Environmental Protection Permit. The Harbor Master will use his judgment in cases where he considers that mooring locations are a threat to public safety. Private moorings that are located in Federal Navigation Projects, associated with any boating facility or that may interfere with navigation need to be approved by the Corps of Engineers.

**2-3.8.16** In granting applications, the Harbor Master shall consider:

- a. The priority list
- b. Whether a suitable mooring location is available as to length of boat, type of boat, weight of boat, displacement and draft of boat.
- c. The Harbor Master will be afforded reasonable discretion in enforcing these allocations/assignments for unusual or special circumstances such as extremely deep draft, use by handicapped and abutting property owners.

**2-3.8.17** Available moorings shall be offered to the senior applicant on the mooring list, subject to the constraints contained in these regulations. If the available mooring location is not suitable to accommodate the senior applicant's vessel or specific needs, it shall be offered to the next senior qualified applicant. The senior applicant shall retain his or her place on the waiting list in this case. The Harbor Master shall continue efforts to provide a suitable mooring location for the senior applicant. If the senior applicant refuses a mooring location which is suitable for his or her vessel in the opinion of the Harbor Master, the person shall be moved to the bottom of the waiting list.

**2-3.8.18** Moorings in Pine Island Bay shall be set on the grid points of the plan contained in the Harbor Management Plan and made part of this ordinance by reference. The grid points are on 75 foot centers. The scope length must be 45 feet.

**2-3.8.19** Minimum mooring tackle requirements.

a. Minimum size for anchors and chains are given in the following table of specifications:

Boat Length Overall	Minimum Mushroom Weight	Min Size of 1 <sup>st</sup> 15 ft. of Chain	Min Size of 2 <sup>nd</sup> 15 ft. of Chain	Min Size of 15 ft Polyester Pendant Diameter
Under 15'	75#	1/2"	1/4"	3/8"
15' to 20'	100#	5/8"	5/16"	3/8"
20' to 25'	150#	3/4"	3/8"	1/2"
25' to 30'	200#	7/8"	7/16"	5/8"
30' to 35'	250#	1"	1/2"	3/4"
Over 35'	300#	1"	1/2"	7/8"

b. Minimum scope length is set by the Harbor Management Commission for mooring grid purposes or six times the depth at the anchor at mean low water at the discretion of the Harbor Master.

c. These minimum requirements do not mean that the required tackle is adequate for any boat. They are intended to provide a minimum standard reasonable for most conditions, but not to guarantee safety under extreme conditions. The City assumes no responsibility for these requirements.

d. Newer type anchoring systems may be used in lieu of a mushroom anchor with the approval of the Harbor Master.

**2-3.8.20** All mooring tackle shall be inspected to ascertain that adverse impacts to the benthic environment and organisms, including eel grass beds, are minimized. The inspection of moorings in Pine Island Bay will be at a time interval determined by the Harbor Master. Method of inspection of mooring will be as deemed appropriate by the Harbor Master. Possible solutions to problems found during inspection include removal of the offending mooring, alternate tackle (such as a screw mooring), or relocation of the mooring to avoid the adverse impact to eelgrass. Primary responsibility for compliance with such orders and directions shall rest with the owner of the improperly anchored or moored vessel or his authorized agent.

**2-3.8.21** Moorings may not be located in a Federal Navigational Channel or other channels fairways under the control of the Harbor Master. Private moorings that are located in Federal Navigation Projects, associated with any boating facility or that may interfere with navigation, need to be approved by the Corps of Engineers.

**2-3.8.22** The Harbor Master may order any unpermitted mooring, or mooring interfering with a fairway, channel or other permitted mooring, removed at the owner's expense. If ownership of said removed mooring is undetermined ninety (90) days after removal, the Harbor Master may sell said mooring tackle with the receipt being deposited to the Harbor Management Fund after expenses are paid.

**2-3.8.23** **Correcting an Unsafe Anchorage or Mooring.** If any vessel shall be found in the judgment of the Harbor Master to be anchored or moored within any harbor or maritime facility in an unsafe or dangerous manner, or in such a way as to create a hazard to other vessels or to persons or property or cause water pollution, the Harbor Master shall order and direct necessary measures to eliminate such unsafe or dangerous condition. Primary responsibility for compliance with such orders and directions shall rest with the owner of the improperly anchored or moored vessel or his authorized agent; in the absence of such owner or agent, said responsibility shall rest with the authorized operator of the vessel or the facility at which the vessel is anchored or moored. In an emergency situation and in the absence of any such responsible person, the Harbor Master shall forthwith board such vessel and cause the improper situation to be corrected, and the owner of the vessel shall be liable for any costs incurred by the Harbor Master or his agents in effecting such correction.

**2-3.8.24** **Unseaworthy Vessels:** No person shall secure or permit to be anchored or moored in a harbor, waterway, or maritime facility a vessel of any kind whatsoever which the Harbor Master considers unseaworthy or in a badly deteriorated condition, or which is likely to sink or to damage docks, wharfs, floats, and/or other vessels, or cause water pollution, or which may become a menace to navigation. Such vessels shall be removed from the water and/or be otherwise disposed of as directed by the Harbor Master per Connecticut General Statutes Section 15-11a.

**2-3.8.25** There are to be no general public moorings placed in Baker Cove, Calf Pasture Cove, or Birch Plain Creek for reasons of navigation and potential environmental damage. However, to allow shorefront property owners to retain use of their property for boats that may not be appropriately stationed at a pier or dock, shorefront property owners along Baker Cove may be allowed 1 mooring to be placed directly in front of their property, if this is the most appropriate means of riparian or littoral access. This mooring may only be used if the swing of the moored boat does not interfere with riparian access by adjacent shorefront property owners.

## **2-4 TRANSIENT BOATS**

Two Shennecossett Yacht Club moorings are designated for transient use.

Transients may anchor or use transient moorings as they become available. The Harbor Master will monitor demand for transient moorings and will recommend to the Harbor Management

Commission the number of required moorings and the areas they should be placed on an annual basis. All anchorages and moorings for transients are on a first come, first serve basis and may be assessed a usage fee for use of a mooring, if so established by the Harbor Management Commission.

**2-4.1 Transient Moorings** May be used for three consecutive days or extended with approval of the Harbor Master.

**2-4.2** Both Shennecossett Yacht Club and Pine Island Marina, through their respective dock masters, provide mooring facilities for transient boaters by utilizing moorings that are not occupied by the assigned vessel for short periods.

**2-5 DEFINITIONS**

**2-5.1 Anchoring**: A boat is anchored when it “rides” or “lays” to a single anchor rode, although it is conceivable to have 2 anchors in tandem on that rode.

**2-5.2 Channel**: refers to any water areas officially marked and maintained to permit unobstructed movement of vessels.

**2-5.3 Coastal Boundary**: Refers to the boundary as defined in Connecticut General Statutes (CGS Section 22a-94 (current January 1, 2003)). Within the coastal area, there shall be a coastal boundary which shall be a continuous line delineated on the landward side by the interior contour elevation of the one hundred year frequency coastal flood zone, as defined and determined by the National Flood Insurance Act, as amended (USC 42 Section 4101, P.L. 93-234), or 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 tidal wetlands mapped under section 22a-20, whichever is farthest inland; and shall be delineated on the seaward side by the seaward extent of the jurisdiction of the state.

**2-5.4 Commercial Mooring**: refers to those moorings that are rented or leased.

**2-5.5 Dockmaster**: refers to the official designated by the owner[s] or decision-making body of a public, private or commercial enterprise that offers dock space or moorings.

**2-5.6 Fairway**: The parts of a waterway kept open and free of all moorings and reserved for the unrestricted movement of vessels. This is a locally designated fairway and not federally designated nor protected by government policies.

**2-5.7 Federal Emergency Management Agency National Flood Insurance Program**:

AI - A30 Zones      Areas of 100-year flood; base flood elevations and flood hazard factors determined.

B Zones              Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood.

VI - V30             Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

**2-5.8 General Public Mooring**: refers to those moorings reserved for the general public.

**2-5.9 HMA. The Harbor Management Act**: The legislation contained within the State of Connecticut General Statutes, Sections 22a-11k through 22a-113t and as may be

amended.

**2-5.10 HMC. The Harbor Management Commission:** The local municipal commission established under and carrying out the responsibilities authorized by the Connecticut Harbor Act.

**2-5.11 Harbor Master:** : a person appointed by the Governor pursuant to Connecticut General Statutes Section 15-1, who is charged with the general care and supervision of their waters of jurisdiction under the supervision of the Department of Transportation. Among their main responsibilities, is keeping channels and established fairways clear of obstructing vessels. The Harbor Masters authority to issue mooring permits is derived from Connecticut General Statutes Section 15-8. Harbor Masters are ex officio members of any Harbor Management Commission, and are required to exercise their authority consistent with an approved Harbor Management Plan, adopted pursuant to Connecticut General Statutes Section 22a- 113m, where one exists.

**2-5.12 Moor:** To secure a vessel to a mooring.

**2-5.13 Mooring:** Permanent moorings are variations on the anchoring theme wherein the boat is secured in place by means of a ground tackle which is normally not part of the boat's on-board equipment. The single point mooring concept is similar to anchoring in that the boat is allowed to swing with wind and current, but it has the convenience of the operator' or crew not having to handle heavy ground tackle on board the boat.

**2-5.14 Mooring Tackle:** refers to the hardware and cordage used to secure a vessel at a mooring.

**2-5.15 Open-to-All on Equal Terms:** Federal navigation projects must be managed in the general public interest and must be accessible and available to all on equal terms. Any number of approaches may be used to assure that all citizens desiring mooring or other access to the projects are treated impartially; it is not the Federal Government's intention to prescribe specific procedures.

A management system shall be considered acceptable provided that it:

- Makes no arbitrary distinction or requirement of any kind in allocating use of the project and ancillary facilities and services to the public except as may be consistent with the purpose for which the project was constructed.
- Does not impose arbitrary fees or arbitrary variations in fees among users. The cost of providing necessary management and ancillary facilities and services may be offset through equitable user fees based on the actual costs incurred.
- Information pertinent to harbor management - including but not limited to rules and regulations, lists of mooring holders, waiting lists, and fee schedules - shall be readily available to the public at all times

**2-5.16 Small Craft:** a vessel 65 feet or less in length.

**2-5.17 Special Anchorage Area:** areas where vessels under 20 meters in length are not required to exhibit anchor lights, day shapes, or sound fog signals as required by the Inland Rules.

**2-5.18 Speed:** The rate which a vessel transits the water.

**2-5.19 Transient Anchorage:** refers to any area reserved and designated on the Water Use Plan

for the exclusive short term use of commercial and recreational vessels.

**2-5.20 Vessel:** refers to every description of watercraft, other than a seaplane on water, used or capable of being used as a means of transportation on water.

**2-5.21 Wake:** Waves caused by the passage of a vessel through the water. These waves are a function of water displaced by the vessel and are generally unrelated to excessive speed.

**2-5.22 Water-dependent uses:** means those uses and facilities which require direct access to, or location in, marine or tidal waters and which therefore cannot be located inland, including but not limited to; Marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyards and boat building facilities, water-based recreational uses, navigational aides, basins and channels, industrial uses dependent upon water-borne transportation or requiring large volumes of cooling or process water which cannot reasonably be located or operated at an inland site and uses which provide general public access to marine or tidal waters.

WHEREAS, the Mayor and Council initially approved this Ordinance on \_\_\_\_\_;  
and

WHEREAS, this Ordinance was published in the Day, a newspaper having circulation in the City of Groton on \_\_\_\_\_ and \_\_\_\_\_; and

WHEREAS, the Public Hearing Notice was published in the Day, a newspaper having circulation in the City of Groton on \_\_\_\_\_ and the hearing was held \_\_\_\_\_ to receive comments concerning this Ordinance.

THEREFORE, BE IT RESOLVED that the Mayor and Council finally approve the adoption of the City of Groton Harbor Management Plan. This ordinance shall take effect upon passage.

\_\_\_\_\_  
DENNIS L. POPP, Mayor

\_\_\_\_\_  
DEBRA J. PATRICK, City Clerk

## APPENDIX D

### PLACEMENT OF FIXED AND FLOATING STRUCTURES

This Appendix is taken from the guidelines for placement of fixed and floating structures in navigable waters on the United States regulated by New England District, U.S. Army Corps of Engineers. These guidelines are available online at <http://www.nae.usace.army.mil/reg/reg2.htm>.

1. These guidelines have been developed due to the intense pressures of development in our coastal waters and on the adjacent land which have led to increasing conflict between users of these resources. They attempt to provide common sense guidance in allocating space for structures in navigable waters, recognizing reasonable use expectations of the general public and waterfront landowners. These guidelines do not constitute policy or regulation. They do, however, provide guidance for project design which typically will not generate adverse public comment or result in permit denial.
2. There is no statutory or regulatory prohibition against the Corps issuing regulatory permits authorizing structures or other work in Federal Navigation Project (FNP). However, the Corps permit regulations require district and division commanders to consider the extent to which that proposed work may be in conflict with the uses (and their respective navigational requirements) at issue when the FNP was authorized as well as with subsequent maintenance dredging activities. In general, the Corps discourages and has not permitted structures in FNPs, except as noted in paragraph 6 below. FNPs are typically channels, turning basins and anchorages.
3. In those cases where a project is proposed within two hundred feet (200') of a FNP the applicant shall determine and show the state plane coordinates for the extreme lateral limits of his project, the point on structures furthest beyond mean high water (MHW), and the point of closest approach of any structure to the FNP. (See sketch no. 1.)
4. Similarly, structures which may cause an intrusion into FNPs will typically not be permitted. FNPs are channels and anchorages created at public expense. Examples of intrusions are permanently moored vessels, fish harvesting devices, etc.
5. To preclude intrusions into FNPs, appropriate setbacks for structures from the project limits may be established on a case by case basis. The setbacks can be determined using appropriate criteria such as:
  - A. Project maintenance requirements. The typical setback shall be a horizontal distance three (3) times the authorized project depth since Corps projects often specify, for dredging purposes, side slopes of 3H: 1V. This will, over the long term, minimize the need, expense, and inconvenience of forcing people to remove structures to dredge. (See sketch no. 1).

- B. Traditional navigation patterns where because of type and size of vessel, channel conditions, fishing or recreational activities, etc. closer approach of structures to a FNP is not in the public interest.
  - C. The configuration and capacity of structures proposed adjacent to FNPs to facilitate intrusion into it. An example would be a pier capable of mooring vessels longer than itself which would extend into the FNP. Such structures would require a greater setback than noted above.
  - D. The presence of adjacent, authorized structures where it would be reasonable for new facilities to conform to their length to provide safe access to the new structure. In some instances this might authorize a smaller setback than noted above.
6. An exception to the guideline regarding FNPs, structures may be favorably considered where the applicant is a state or local government who would place such structures in a Federal Anchorage to provide greater or more effective use to the public, with the condition that such facilities would be available on an equal access basis to all citizens of the U.S.
7. In a linear waterway, i.e., river, canal, narrow estuary, etc., a reasonable area of public water should be maintained in the public interest to sustain activities not specifically related to simply transiting the area in safety. Such activities are cruising, fishing, sail boarding, swimming, water skiing, etc. which require open, unobstructed water and should not be eliminated for private interest.

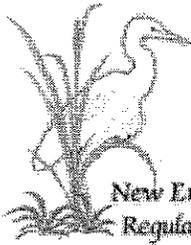
In such areas, no structure should extend more than 25% of the waterway width at mean low water. This will maintain 50% of the width as open water, an even split, between public and private interest. (See sketch no. 2.)

8. A maximum intrusion into a waterway in areas where there is not a physical width constriction is also desirable to preclude excessive loss of public water usage. In general, new structures should conform in length to adjacent structures and customary usage of the surrounding area. In areas where existing structures and usage do not seem applicable, a reasonable maximum authorized distance beyond mean low water of 600 feet (the traditional cable length) will be used. This may be modified if necessary for site specific conditions or public benefit. (See sketch no. 3.)
9. Numerous conflicts between neighboring waterfront property owners have arisen during our permit review process concerning the spacing of projects relative to riparian lines (demarcations of rights in the water associated with owning waterfront property). These conflicts are generally concerned with access to piers and floats for mooring vessels. We typically require a minimum setback from the reasonable riparian boundary of 25 feet. This is based on the fact that a median sized recreational vessel length is in the range of 32 feet. A minimum turning distance for such a vessel is 1.5 times its own length or 48 feet which we have rounded to 50 feet. Each adjacent facility provides half the required turning distance, which is an equitable distribution of the resource. (See sketch no.3)

If abutting property owners reach a mutual agreement regarding structures which has a lesser setback, that setback may be authorized, if the applicant agrees to record any ensuing Corps permit which will have that agreement as a condition and the abutter's letters of no objection, with the Registrar of Deeds, or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property.

10. Fields of individual single point moorings shall be defined by a polygonal area whose angle points are defined by coordinates, to within 10 feet, in the applicable state plane coordinate system and by a maximum number of moorings authorized within it. A rule of thumb for the area needed by a vessel on a single point mooring is a circle with a radius equal to vessel length plus five times the depth of water at high tide. This can be reduced but the minimum should be length plus three times water depth.

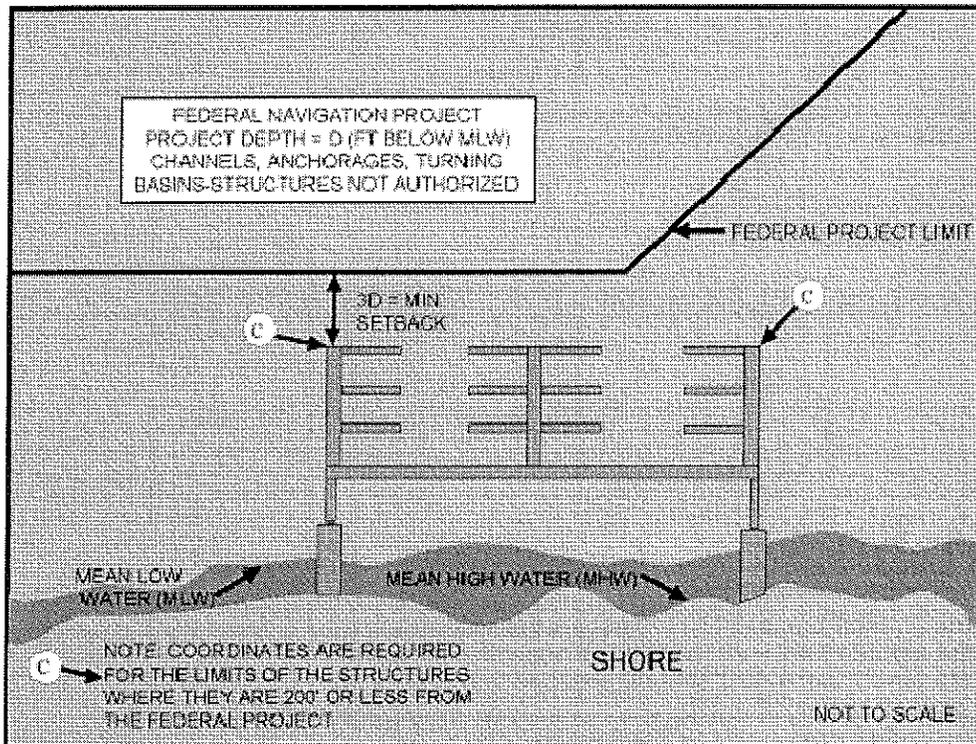
These mooring fields should be in reasonably close proximity to the applicant's property and preferably encompassed by his reasonable riparian lines and far enough offshore to keep noise disturbance to other shore owners in reasonable limits and not restrict reasonable future development by these owners. If mooring areas remote from the applicant's property are proposed, a clear description of why this is necessary and what are the potential positive and negative impacts to the public's use of the water may occur. See sketch no. 4)



New England District  
Regulatory Program

# Guidelines

For the placement of fixed and floating structures in navigable waters of the United States regulated by New England District, U.S. Army Corps of Engineers



SKETCH NO. 1: ILLUSTRATION OF GUIDELINES FOR STRUCTURES NEAR FEDERAL NAVIGATION PROJECTS



[Click Image to Return to Guidelines](#)

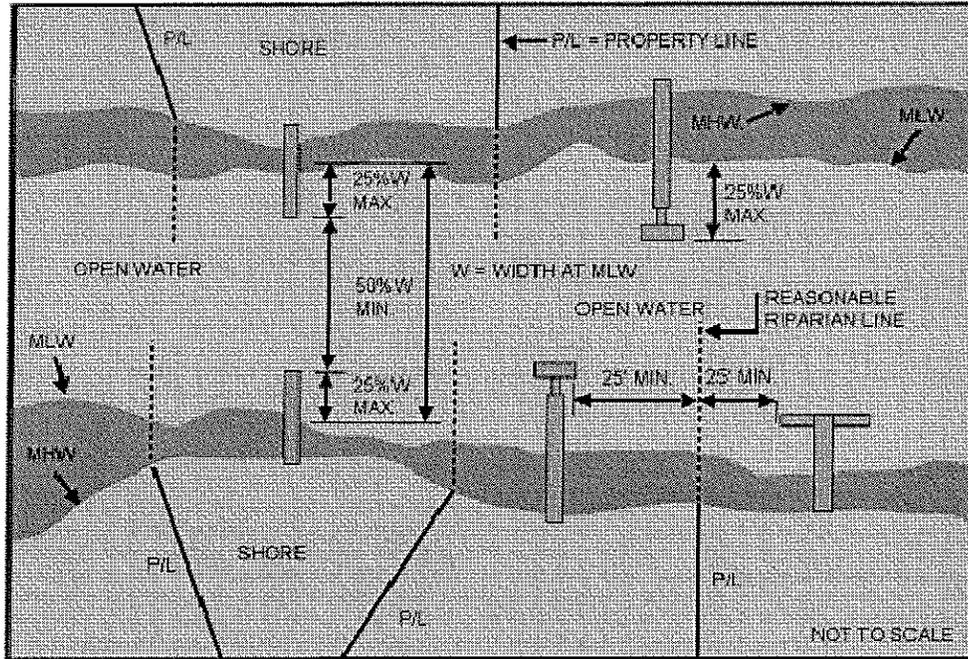
To receive a copy of these publications, e-mail Alexine M. Raineri  
[alexine.m.raineri@usace.army.mil](mailto:alexine.m.raineri@usace.army.mil)



New England District  
Regulatory Program

# Guidelines

For the placement of fixed and floating structures in navigable waters of the United States regulated by New England District, U.S. Army Corps of Engineers



SKETCH NO. 2: GUIDANCE ON LENGTH OF STRUCTURES IN LINEAR WATERWAYS

[Click Image to Return to Guidelines](#)



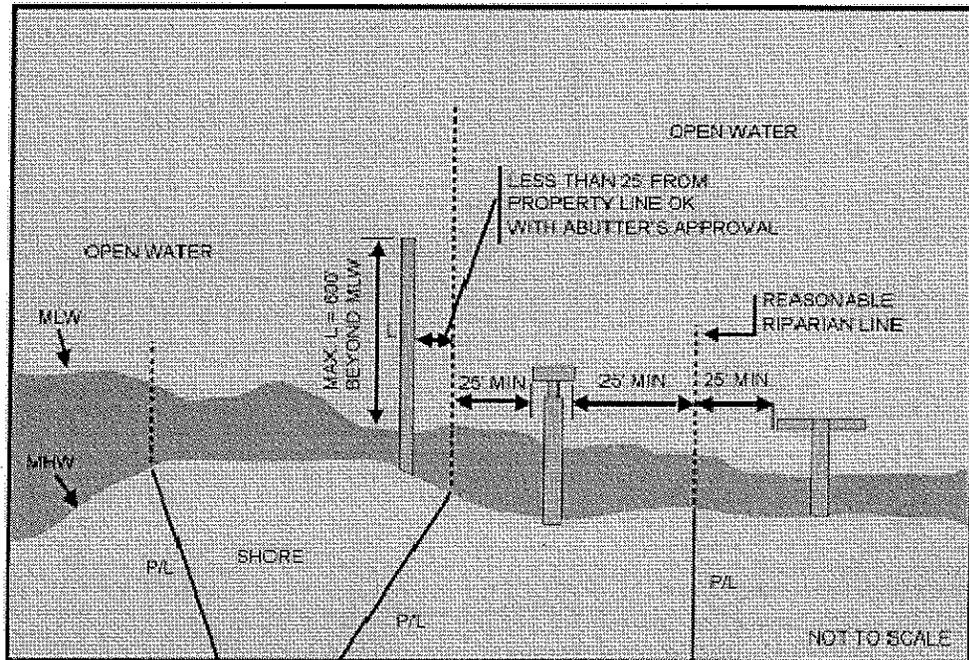
To receive a copy of these publications, e-mail Alexine M. Raineri  
[alexine.m.raineri@nae01.usace.army.mil](mailto:alexine.m.raineri@nae01.usace.army.mil)



New England District  
Regulatory Program

# Guidelines

For the placement of fixed and floating structures in navigable waters of the United States regulated by New England District, U.S. Army Corps of Engineers



**SKETCH NO. 3: GUIDANCE ON SPACING STRUCTURES RELATIVE TO ADJACENT PROPERTIES AND MAXIMUM LENGTH BEYOND MEAN LOW WATER (MLW)**

[Click Image to Return to Guidelines](#)



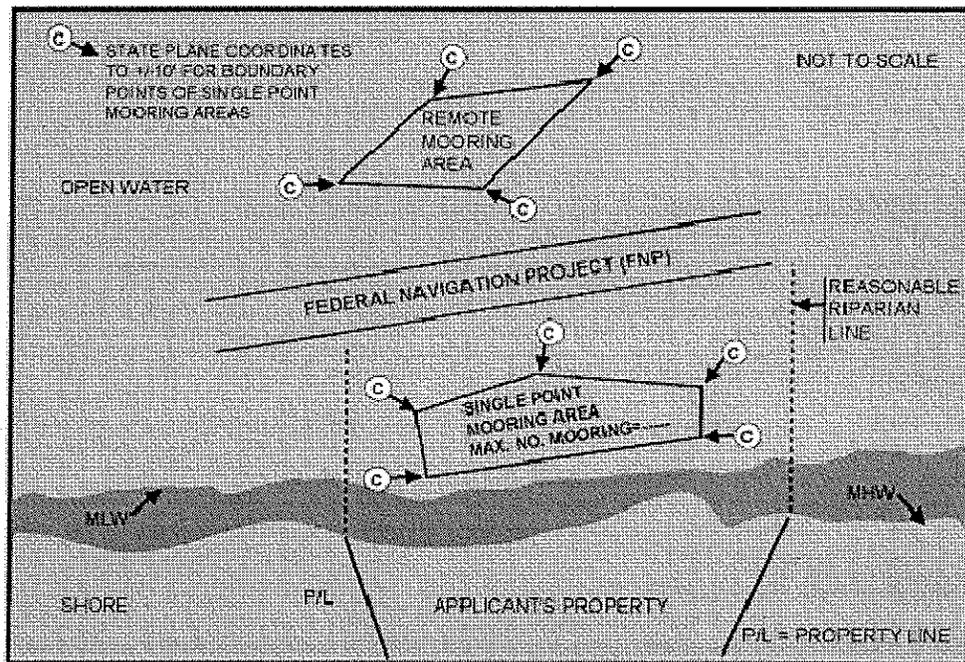
To receive a copy of these publications, e-mail Alexine M. Raineri  
[alexine.m.raineri@nae01.usace.army.mil](mailto:alexine.m.raineri@nae01.usace.army.mil)



New England District  
Regulatory Program

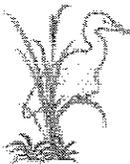
# Guidelines

For the placement of fixed and floating structures in navigable waters of the United States regulated by New England District, U.S. Army Corps of Engineers



SKETCH NO. 4: ILLUSTRATION OF GUIDELINES FOR SINGLE POINT MOORING FIELDS

[Click Image to Return to Guidelines](#)



To receive a copy of these publications, e-mail Alexine M. Raineri  
[alexine.m.raineri@nae01.usace.army.mil](mailto:alexine.m.raineri@nae01.usace.army.mil)