

Town of Greenwich Harbor Management Plan



Harbor Management
Commission



Greenwich, Connecticut

August 2017

Final Draft for Town Adoption

STATEMENT OF PURPOSE:

The Greenwich Harbor Management Commission is responsible for preparing, maintaining, and implementing a Harbor Management Plan for the Town of Greenwich for the most desirable use of the Greenwich Harbors Area for recreational, commercial, and other purposes and for preservation and use of the GHA's coastal resources.

**TOWN OF GREENWICH
HARBOR MANAGEMENT PLAN
Final Draft for Town Adoption**



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Town of Greenwich, Connecticut

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August 2017

FOREWORD

This document contains the *Town of Greenwich Harbor Management Plan, Final Draft for Town Adoption* (the Plan) August 2017. The Plan has been prepared by the Greenwich Harbor Management Commission (HMC) in accordance with municipal authority provided by the Connecticut Harbor Management Act of 1984 (Sections 22a-113k through 22a-113t of the Connecticut General Statutes) and by the Town of Greenwich HMC Ordinance (Chapter 7A of the Greenwich Town Code).

In accordance with Sec. 22a-113m of the General Statutes and Chapter 7A of the Town Code, the Plan has been approved by the Board of Selectmen (BOS), reviewed by the U.S. Army Corps of Engineers (USACE), and approved by the Connecticut Commissioner of Energy and Environmental Protection and the Connecticut Port Authority. To take effect, it requires adoption by ordinance by the Greenwich Representative Town Meeting (RTM).

Included in the Plan are Town goals, policies, and recommendations for beneficial use and conservation of the Greenwich Harbors Area (GHA). The GHA includes all navigable waters and intertidal areas within the Town's municipal jurisdiction on the Byram River/Port Chester Harbor, Byram Harbor, Greenwich Harbor, Cos Cob Harbor, Greenwich Cove, Tomac Creek, and other nearshore waters of Long Island Sound known as Greenwich Outer Harbor.

A principal purpose of the Plan is to strengthen and maintain the Town's authority for managing use and conservation of the GHA. That purpose is achieved through Town planning, regulatory, and other initiatives undertaken in coordination with state and federal agencies, notably the Connecticut Department of Energy and Environmental Protection (DEEP) and USACE.

Public and private activities affecting the GHA must be consistent with the Plan. The HMC is responsible for determining this consistency through a Harbor Management Review Process established in the Plan.

The Plan strengthens and maintains coordination among the different Town agencies with responsibilities affecting the GHA. It helps ensure that these agencies incorporate an awareness and understanding of harbor management concerns into their decisions, and that their actions are, to the extent practical and permitted by law, consistent with the Town goals, policies, and recommendations established in the Plan. In addition, actions by the State of Connecticut Harbor Master must be consistent with the Plan.

The Plan adheres to the principles outlined in the 2009 *Greenwich Plan of Conservation and Development* (POCD). The Plan and POCD are complementary Town documents.

Plan implementation is a dynamic process that will evolve as conditions change. The Plan establishes a policy and decision-making framework to guide the Town's actions, including case-by-case decision-making by the HMC. That framework is flexible and requires modification over time in response to changing conditions. To ensure that it responds to changing conditions, the Plan contains provisions for future amendment as needed.

ACKNOWLEDGMENTS

Many individuals contributed to preparation of the Plan, including Town officials and residents and representatives of Town, state, and federal agencies.

The Plan was prepared under the leadership of the Greenwich HMC—the principal agency responsible for Plan implementation:

Bruce Angiolillo (Chairman)	
Bernard Armstrong	Lile Gibbons (Vice Chair)
William Ingraham	Frank Mazza
Steve Kinner	Mike Van Oss (Secretary)
Don Carlson (Alternate)	
Casey McKee (Alternate)	
Harbor Master Ian Macmillan (Ex-Officio)	

The Plan could not have been prepared without the support of First Selectman Peter Tesei and Selectmen Drew Marzullo and John Toner who, along with former Selectman David Theis, demonstrated their strong commitment to stewardship of the Town's coastal and navigable waters.

Former HMC members James Bonney, Peter Quigley, and Gary Silberberg contributed significantly to preparation of the Plan. Among the many Town agency representatives who provided information, assistance, and advice during the process of preparing the Plan are: Joseph Siciliano, Director of Parks and Recreation; Jeff Freidag from the Department of Parks and Recreation's Marine and Facilities Operating Division; Lieutenant John Brown from the Greenwich Police Department; Katie DeLuca, Director of Planning and Zoning; Denise Savageau, Conservation Director; and Amy Siebert, Public Works Commissioner. From the Shellfish Commission, Chairman Roger Bowgen and Commissioner Sue Baker provided much-needed advice and support throughout the planning process. In addition, representatives of a number of state and federal agencies, including DEEP, Connecticut Port Authority, Connecticut Bureau of Aquaculture, and the USACE, provided substantial assistance.

Ian Macmillan, State of Connecticut Harbor Master for Greenwich, provided assistance throughout the planning process.

The Land and Water Resources Division of DEEP provided technical assistance and support for development of the Plan through the efforts of John Gaucher, its liaison to the HMC.

Geoffrey Steadman of Westport, CT served as consultant to the HMC for preparation of the Plan and worked at the direction of the HMC to prepare all Plan documents. Photographs in the Plan are by Mr. Steadman from October 23, 2008. Associates of Mr. Steadman who contributed to the Plan include Keith Placko of Fairfield, CT who provided computer-aided mapping assistance.

Deserving of special thanks and recognition are the citizens of Greenwich who participated in the HMC's public meetings held during the planning process and otherwise demonstrated their support for the Town's efforts to plan for the beneficial use and conservation of the Town's harbors and waterfront resources for the benefit of future generations.

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LIST OF ACRONYMS AND ABBREVIATIONS

BOS:	Greenwich Board of Selectmen
BMP:	Best Management Practice
CCMA:	Connecticut Coastal Management Act
CJL:	Coastal Jurisdiction Line
CPA:	Connecticut Port Authority
DEEP:	Connecticut Department of Energy and Environmental Protection
GHA:	Greenwich Harbors Area
I-95:	Interstate Route 95
MHW:	Mean High Water
MLLW:	Mean Lower Low Water
HMC:	Greenwich Harbor Management Commission
LWRD:	Land and Water Resources Division
Plan:	Greenwich Harbor Management Plan
POCD:	Greenwich Plan of Conservation and Development
RTM:	Greenwich Representative Town Meeting
Town Code:	Greenwich Municipal Code of Ordinances
TMDL:	Total Maximum Daily Load
USACE:	U.S. Army Corps of Engineers
WB Zone:	Waterfront Business Zone
WQS:	Connecticut Water Quality Standards

Chapter One:

Introduction and

Plan Overview

This first chapter of the *Town of Greenwich Harbor Management Plan* (the Plan) provides an introduction to the Greenwich Harbors Area (GHA). The GHA defines the Town's area of municipal harbor management jurisdiction over its coastal waters, intertidal areas, and several distinct harbors on Long Island Sound. As described in this chapter, Town authority for managing use and conservation of the GHA is provided by Special Legislative Acts, unique to the Town, that were enacted by the Connecticut General Assembly, and by the Connecticut General Statutes and the Town Charter and Code of Ordinances. This authority is implemented through actions by the Greenwich Representative Town Meeting (RTM), the Board of Selectmen (BOS), and the Greenwich Harbor Management Commission (HMC).

This chapter also sets forth the Town's harbor management goals, identifies the Town's harbor management priority issues, and introduces the Plan's policies, recommendations, and responsibilities for implementation. The policies and recommendations are not intended to provide a definitive solution to every issue confronting the GHA, but instead provide a guiding framework for case by case decision-making by the HMC.

The Plan adheres to the principles outlined in the 2009 *Greenwich Plan of Conservation and Development* (POCD). The Plan and POCD are complementary Town documents.



INTRODUCTION TO THE GREENWICH HARBORS AREA

The municipal harbor management jurisdiction of the Town encompasses a broad geographic area waterward of the Mean High Water (MHW) line, including a number of well-known harbors and coves supporting a diversity of water-dependent uses and activities. For the purpose of the Plan, this area of jurisdiction is referred to as the GHA. (See map 1-1.)



Photo 1-1: The view east over the Greenwich Harbors Area; Byram River/Port Chester Harbor in the foreground

Distinct harbors and coves within the GHA include, from west to east: the Byram River/Port Chester Harbor (so much as lies within the Town’s municipal boundaries); Byram Harbor; Greenwich Harbor; Smith Cove; Indian Harbor; Cos Cob Harbor; Greenwich Cove; and Tomac Creek. Some of these harbors and coves are defined in Sec. 7-8 of the Greenwich Municipal Code (Town Code) as distinct “inner harbors” of the Town. Also included in the GHA is the area known as the Outer Harbor bounded to the west by Byram Point, to the south by Great Captain Island and Little Captain Island, and to the east by Greenwich Point. Three harbors—Byram River/Port Chester, Greenwich, and Cos Cob—are served by federal navigation projects authorized by the U.S. Congress. The GHA is described in more detail in Chapter Two of the Plan.

Many agencies at the Town, state, and federal levels of government have authorities and responsibilities that affect use, conservation, and enhancement of the GHA. In addition, the general public and waterfront property owners have important rights in the GHA, and private organizations are also interested parties. This institutional framework for harbor management is described in Chapter Three of the Plan.



Photo 1-2: The view west over Greenwich Cove and the GHA

Town officials and agencies recognize the need for ongoing attention to both maintain safe and enjoyable use of the GHA and conserve the natural resources and ecological values provided by the harbors of the Town. This recognition was the impetus for preparing the Town's Harbor Management Plan. A discussion of harbor management priority issues is included in Chapter Four of the Plan.

TOWN AUTHORITY FOR HARBOR MANAGEMENT

Board of Selectmen

In addition to its powers and duties for administration of Town government, the three-member Greenwich BOS has unique municipal authority for harbor management granted through Special Legislative Acts 288 and 93 of the Connecticut General Assembly (see Appendix C of the Plan. Significant harbor management authority is also provided to the BOS through Article 19, Sec. 307 of the Town Charter.

On September 15, 2011, the BOS by unanimous vote accepted the September 2011 report "A Waterways Vision for the Town of Greenwich" prepared by the Greenwich Department and Board of Parks and Recreation. That report included a recommendation calling for the BOS to evaluate the potential benefits of preparing a Town Harbor Management Plan as authorized by the Connecticut General Statutes and recommended in both the 1998 and 2009 editions of the POCD. Following evaluation, the BOS proposed an ordinance, subsequently adopted by the RTM, which established the HMC. That ordinance also specified the approval authority of the BOS over the Plan and any Plan amendments before the Plan and any future amendments may be adopted by the RTM.

Harbor Management Commission

On September 16, 2013, the RTM adopted the HMC Ordinance as Chapter 7A of the Town Code, creating the HMC. The HMC was thereby authorized to carry out all of the powers, duties, and authorities granted to municipal harbor management commissions by the Connecticut General Assembly through the 1984 legislation known as the Connecticut Harbor Management Act (P.A. 84-287; Sections 22a-113k through 22a-113t of the Connecticut General Statutes). A specific intent of the Act is to increase the authority and control of local governments over matters pertaining to the use, management, and conditions of their harbors. (The Connecticut Harbor Management Act and Chapter 7A of the Town Code are included as appendices D and E, respectively, of the Plan.)

Chapter 7A of the Town Code contains the following statement of purpose.

Pursuant to the provisions of Connecticut General Statutes §§ 22a-113k through 22a-113t, there is hereby created the Harbor Management Commission for the Town of Greenwich, which Commission, subject to the authority held by the Board of Selectmen of the Town of Greenwich under Town Charter § 307, shall be responsible for preparing, maintaining and implementing a Harbor Management Plan for the Town of Greenwich in accordance with General Statutes § 22a-113m through § 22a-113t. Any Harbor Management Plan prepared by the Harbor Management Commission shall be effective only upon approval and adoption by the Board of Selectmen and the Representative Town Meeting. Any and all actions of the Harbor Management Commission may be reviewed by or appealed to the Board of Selectmen within thirty (30) days of the Harbor Management Commission's action being appealed.

HARBOR MANAGEMENT PLAN

Following its appointment by the RTM, the HMC prepared the Plan. In doing so, the HMC sought and received input from interested residents and organizations, Town officials and agencies, and state and federal agencies with harbor management responsibilities. The HMC will continue to work in coordination with all involved agencies, officials, organizations, and residents when pursuing the Town's harbor management goals and otherwise implementing the Plan.

Harbor Management Goals

At the outset of the planning process, the HMC set forth 11 goals to serve as the foundation of the Plan and, in effect, to establish the Town's harbor management vision. Based in part on the legislative goals and policies of the Connecticut Coastal Management Act (CCMA), the Town's harbor management goals are directed toward achieving an appropriate balance in the GHA between safe and beneficial use of the GHA for recreational and other purposes on the one hand, and protection of natural coastal resources and the existing character and quality of life in the Town on the other. The HMC recognizes that, due to the uniqueness of some coastal resources, a balance accommodating both recreational and commercial use and environmental conservation cannot be achieved in all areas and at all times.

The goals are based in large part on the concept of environmental stewardship whereby agencies, organizations, governmental officials, and Town residents with an interest or authority pertaining to the Town's coastal and harbor resources will recognize a responsibility to care for those resources in the public interest. That care—or stewardship—is for the purpose of ensuring that the resources and their natural and community values are sustained for the future. The goals also establish the basis for the Plan's harbor management policies and area-specific recommendations.

Goal 1: Effective Town Management of the GHA

Use and conservation of the GHA will be actively managed by the Town in the public interest, while preserving the Town's natural and traditional character and heritage tied to Long Island Sound and the tidal watercourses draining into the GHA. Harbor management will be accomplished through thoughtful, long-range planning, effective regulation of water and waterfront activities, and non-regulatory measures including, but not limited to, personal stewardship actions and continued public outreach and education initiatives.

Goal 2: Environmental Conservation, Enhancement, and Sustainability

Environmental quality, including water quality, and coastal resources in the GHA will be protected, enhanced, and sustained, with recognition of the vital ecological relationship between Long Island Sound and its many tributaries and watersheds, including the Byram River, Mianus River, and other tributaries flowing into the GHA.

Goal 3: Coastal Resiliency

Vulnerability of the GHA and shoreline to the damaging impacts of natural hazards will be reduced, including vulnerability to flooding, erosion, and wind hazards caused by hurricanes, coastal storms, and rising sea level. Recovery from damage inflicted by natural hazards will be accelerated, and costs for restoring Town services, public infrastructure, and community functions damaged by natural hazards will be reduced.

Goal 4: Viable Water-Dependent Uses and Facilities

A diversity of water-dependent uses and facilities that individually and collectively enhance the GHA, the local and regional economy, and the quality of life in the Town will be supported and maintained.

Goal 5: Nonfederal Dredging

Environmentally sound, nonfederal dredging will be encouraged and supported to maintain safe and efficient access to the GHA and the viability of water-dependent uses, improve water circulation and water quality, and remediate the adverse effects of siltation.

Goal 6: Recreational Uses

Opportunities for recreational use of the GHA, consistent with the GHA's capacity to support that use without the occurrence of significant adverse impacts on environmental quality or on the public's health, safety, welfare, and enjoyment will be maintained and enhanced.

Goal 7: Public Health, Safety, and Welfare

Use and development of the GHA and waterfront will be properly managed to assure the most orderly and efficient use, reduce and avoid conflicts among competing uses, and otherwise provide for the continued health, safety, and welfare of everyone who uses and enjoys the GHA and waterfront.

Goal 8: Sustainable Economic Benefits

Economic benefits associated with the GHA and waterfront, facilitated by coordinated use, development, and enhancement of suitable waterfront areas for water-dependent uses, will be recognized and pursued.

Goal 9: Appropriate Access to the GHA

Safe and enjoyable opportunities for public use of, and access to, the GHA for active and passive recreational uses will be provided in appropriate locations, consistent with the capacity of coastal resources to accommodate public access in an environmentally sound manner.

Goal 10: Coordinated Planning and Regulation of Waterfront Land-Use

Waterfront land-use will be planned and regulated through the POCD and Building Zoning Regulations in coordination with implementation of the Plan, in a manner consistent with the CCMA and Town goals for land-use and development, and with the capacity of the natural and man-made environment to support waterfront use and development without significant adverse impacts on coastal resources and water quality.

Goal 11: Public Interest, Support, and Participation

Public support for implementing the Plan will be established and maintained, along with public awareness and appreciation of the significant recreational, environmental, economic, and community resources and values provided by the GHA.

Priority Issues

During the harbor management planning process a number of questions and concerns were raised by Town residents, officials, and others participating in the process. In analyzing the issues, the HMC found that some require prompt attention; others may be more significant in the future or require longer-term approaches to their resolution; and many are inter-related. All may be addressed through the Town's goals, policies, and recommendations established in the Plan.

The HMC identified seven harbor management priority issues. These priority issues, listed below, are discussed in Chapter Four of the Plan.

- 1. Improved procedures are needed to effectively apply the full range of municipal authority for managing the GHA, including authority of the BOS pursuant to Special Legislative Acts and harbor management authority from the General Statutes.**

2. **Regular maintenance dredging of the Mianus River, Greenwich Harbor, and Port Chester Harbor (Byram River) federal navigation projects is necessary to maintain safe and efficient navigation, long-term viability of water-dependent facilities, and enjoyable public access to Long Island Sound.**
3. **A new and comprehensive Town program is needed for fair and equitable management of all boat mooring locations in all harbors of the Town.**
4. **An effective procedure is needed for allocating funds, including mooring permit fees, for maintenance and improvement of the GHA for the public and for expenses for personnel and equipment directly related to implementation of the Plan.**
5. **Existing and potential conflicts among motorized and human-powered vessels require ongoing attention and coordination among responsible agencies and the public to protect all users, achieve effective enforcement of applicable laws and regulations, and increase public awareness.**
6. **Additional Town guidelines are needed to avoid environmental impacts and other potentially adverse effects of docks and piers, while maintaining property owners' rights for reasonable access to navigable water and protecting the public's rights and interests and the traditional character of the shoreline.**
7. **Pressure for redevelopment of waterfront sites, especially in the Town's Waterfront Business zoning district (WB Zone), may require amendment of waterfront zoning regulations to help ensure continuation of some water-dependent land-uses, including recreational boating facilities and services.**
8. **Sections of the Town Code pertaining to the GHA are outdated and require amendment to implement the Plan and achieve consistency with current laws and regulations.**

Harbor Management Policies and Recommendations

The Plan establishes Town policies that guide case by case decisions by the HMC and other Town agencies when responding to the harbor management priority issues and other harbor management concerns regarding the GHA. The following policies, set forth in Chapter Five of the Plan, apply throughout the Town's harbor management jurisdiction: 1) public health, safety, and welfare policies; 2) navigation and water-use policies; 3) coastal resources and water quality policies; 4) recreational boating policies; 5) waterfront land-use and development policies; 6) water and waterfront access policies; and 7) harbor management administration and coordination policies.

More site-specific harbor management recommendations are also included in the Plan in Chapter Six. These have been formulated for each of the seven identified harbors of the Town: Byram River/Port Chester Harbor; Byram Harbor; Greenwich Harbor; Cos Cob Harbor; Greenwich Cove and Tomac Creek; and the Outer Harbor.

Implementing the Harbor Management Plan

In Chapter Seven, the Plan identifies responsibilities for Plan implementation, including responsibilities of the RTM, BOS, HMC, other Town agencies, the Harbor Master, state and federal governmental agencies, including DEEP and the USACE, and private groups and individuals. Among other responsibilities, the RTM will apply its authorities to adopt Town plans, ordinances, and fee schedules, and to approve Town operating and capital budget requests, in a manner to advance the Plan; the BOS will apply its authority provided by Special Legislative Acts 288 and 93 and Sec. 307 of the Town Charter as needed; and the HMC will conduct a Harbor Management Review Process to review proposals affecting the GHA to determine their consistency with the Plan, and establish and implement regulations relating to use and maintenance of the GHA, including regulations for mooring of all vessels.

Benefits of the Harbor Management Plan

The Plan will be used by the Town to achieve a number of important purposes and benefits. Among other benefits, the Plan will:

- Address the Town's immediate harbor management issues, including mooring administration, dredging, dock and pier management, and funding matters;
- Strengthen the Town's role, in coordination and cooperation with state and federal authorities, for planning, management, and regulation of in-water and waterfront activities and development;
- Advance the Town's long-range vision for appropriate and beneficial use and conservation of the GHA and the individual harbors of the Town, in coordination with the POCD;
- Encourage coordination and cooperation among Town agencies and among the different Town, state, and federal agencies with responsibilities affecting the GHA, including land-use responsibilities affecting water quality in the GHA;
- Facilitate increased cooperation by the Harbor Master for achieving Town goals for beneficial use and conservation of the GHA and the harbors of the Town;
- Establish a continuing local forum to give all citizens, officials, and businesses an opportunity to address issues concerning the GHA and Plan; and
- Provide a formal basis for applying operational funds for the beneficial management of the GHA on an on-going basis and for capital projects and other harbor management initiatives.

Harbor Management Fund

The Greenwich Harbor Management Fund, established in accordance with Sec. 22a-113s of the Connecticut General Statutes and Sec. 7A-7 of the Town Code, will provide a source of funds for implementing administrative and other provisions of the Plan. In accordance with the statute and code, fees for mooring permits and other activities within the scope of the Plan are deposited into the Harbor Management Fund administered by the HMC and BOS. The fund may be used only for maintenance and improvement of the GHA for the benefit of the public and for expenses for personnel, equipment, and other items, including software, directly related to the function of the HMC and Harbor Master.

The Plan does not commit the Town to future expenditures, but provides a basis for implementing capital and other projects recommended in the Plan, utilizing the Greenwich Harbor Management Fund and other funds, including funds available from state, federal, and private grant programs, as available.

An On-Going Process

Managing the GHA through implementation of the Plan is a dynamic process that will evolve as conditions and circumstances change. The HMC, acting in coordination with the BOS and other Town agencies, works to implement the Plan, recognizes that the Plan cannot identify every issue that is likely to affect the GHA in the future, nor does the Plan provide a definitive answer to every possible problem. The Plan provides a policy and decision-making framework to guide the Town's actions, including case-by-case decision-making by the HMC and other Town agencies, as well as the actions of state and federal agencies. The framework will be flexible and require modification over time as conditions change and responses to sometimes complicated harbor management issues develops.

As the Town's harbor management initiatives progress, additional management provisions may be needed to respond to changing circumstances so as to ensure that the Plan remains up to date.

NOTE:

Laws and regulations affecting the GHA, including laws and regulations enforced by agencies of the State of Connecticut, are subject to change and/or renumbering. Persons affected by or otherwise interested in laws and regulations noted in the Plan should consult current statutes and regulations and may contact the appropriate agency for information on the status of current laws.

Chapter Two:

The Greenwich Harbors Area

This chapter describes the GHA encompassing the navigable waters and intertidal areas subject to the harbor management authorities of the Town. The GHA defines the jurisdiction of the Greenwich HMC and Plan. Boundaries of the GHA are coincident with the boundaries of the area, established in Special Legislative Act 93 and Section 307 of the Town Charter, within which the Town's BOS has authority to make rules, regulations, and orders respecting the use of the waters by all vessels. A diversity of water-dependent activities along with ecologically vital coastal resources is found in the GHA.

Included in this chapter are descriptions of: 1) the Town's coastal area setting on Long Island Sound; 2) historical uses and development of the Town's shoreline and navigable waters; 3) the boundaries of the GHA and some general conditions of interest in the GHA; and 4) conditions in each of the several distinct and well known harbors and coves of the Town within the GHA.

The information presented emphasizes how the Town's character and quality of life have always been, and remain, intrinsically tied to the Town's harbors and coves and the water and shoreline resources of Long Island Sound. The coastal area is generally recognized by Town officials and the general public as the Town's most important natural resource, providing a variety of environmental, economic, and community benefits for the Town and its citizens.

Prominent features of the GHA are shown on maps and photos included in this chapter.



COASTAL AREA SETTING

The Town of Greenwich in southwest Connecticut's Fairfield County is a coastal, primarily residential community with well-defined neighborhoods and village centers. Historically called the "gateway to New England," the Town may be characterized with regard to the exceptional natural character of its interior and shore area landscapes. The 2010 census counted the Town's population at 61,171. The area of the Town covers about 67 square miles, including about 48 square miles of land and 19 of water.

Set on the north shore of Long Island Sound, the Town is bounded on the east by the City of Stamford, on the north by the Town of North Castle; on the west by the Village of Port Chester, Town of Harrison and City of Rye; and on the south by the Sound. (See maps 2-1 and 2-2.)

The Town is served by the major transportation arteries of the Connecticut Turnpike (I-95), Merritt Parkway (Rt. 15), Post Road (Rt. 1), and Metro-North Commuter Railroad, and by navigable waterways in Long Island Sound.

The Town is part of the coastal area of the State of Connecticut as defined by the Connecticut Legislature in the Connecticut Coastal Management Act (CCMA). Much of the Town's historical growth and development as well as its beneficial quality of life is tied to Long Island Sound and the several distinct harbors and coves along the Town's shoreline. As the Town continues to thoughtfully plan for the beneficial use and conservation of its coastal and navigable waterways, it is helpful to consider some of its history, particularly as that history is related to the Town's coastal area setting on Long Island Sound—an estuary of national significance designated by the U.S. Congress.

A MARITIME COMMUNITY

The Town's roots as a community go back to the original settlement in 1640 when Daniel Patrick and Robert Feake, two settlers acting in the name of the New Haven colony, purchased the area now known as Old Greenwich (and formerly known as Sound Beach) from the Native American Siwanoy Tribe. Included was the land between the watercourse now called Long Meadow Creek (which flows through the present-day Binney Park into Greenwich Cove) and the present-day boundary between Greenwich and Stamford. As with Connecticut's other early communities, the site of the Town's first settlement was chosen because the coastal and estuarine environment provided abundant oysters, finfish, and other seafood; the salt marshes provided cordgrass and salt hay to sustain livestock; the upland forests provided firewood and game; and the creeks flowing into Greenwich Cove and Long Island Sound provided plentiful fresh water.

For security purposes, the settlement became a manor protected by the nearby Dutch colony of New Netherland in 1642. After a boundary dispute with the Dutch in 1650, the settlement again became part of the New Haven colony. The Town was considered part of Stamford from 1656 until 1665, when the Connecticut General Assembly declared Greenwich to be a separate township. In 1672, additional land along the shoreline to the west known as "Horseneck" (comprising the Field Point peninsula and so named because of the peninsula's shape) was purchased from the Native Americans. Settlements then grew along the entire shore from the Stamford boundary to

the Byram River and north to the border with New York State. By 1730, the Town's present boundaries were set.

Throughout the 1700s, farming was the Town's principal enterprise. Tide-powered grist mills, corn mills, and saw mills were built on the coastal creeks and rivers, including the Davis Mill built on the Indian Harbor inlet and operated for 200 years. Shipping businesses along the Mianus River and in Greenwich Harbor were established.

During the American Revolution, the Town's shoreline continued to support maritime trade in Long Island Sound, but the Sound also provided opportunity for British attacks on Greenwich and other western Connecticut towns. Raids from New York and Long Island were frequent, and in 1779 the British looted and burned the Town.

After the war, maritime trading and fishing industries took hold and prospered throughout much of the 19th century. Ships based at three Town landings transported agricultural goods to New York City and other ports. In the 1830s, steamboats began regular service for passengers and goods, stopping in Greenwich and Byram harbors. In 1840, a granite quarry on the site of the present-day Byram Park began operation and provided stone for major construction projects in New York City and elsewhere. Most of the Town's economic and cultural activities during this period took place on or near the waterfront.

When the New York and New Haven Railroad was completed through Greenwich in 1848, it set in motion a chain of events that would dramatically change the character of the Town. In addition to increasing the ease of transportation, the railroad brought many immigrants who became railroad workers, stone masons, and mill, foundry, and factory workers. In addition, the Town's popularity as a suburb of New York City began to grow as businessmen purchased sizable tracts of land and built homes outside the crowded city. During the latter part of the 1800s, the Town became a summer resort favored by New Yorkers. Town residents and visitors began to look at Long Island Sound and the Town's shoreline as a recreational resource. The original Riverside Yacht Club building was built in 1889. Hotels sprang up along the shore, and as more and more visitors decided to build permanent homes in the Town, shorefront communities such as Belle Haven, Field Point Park, and Byram Shore were established. Elsewhere in Town, farmland gave way to construction of grand estates. National leaders in business, finance, art, literature, and many other fields recognized Greenwich as an ideal location in which to live; they came to the Town to make their homes.

Despite the ongoing shift to rail and highway transportation, maritime commerce in the Town's harbors remained significant. Toward the end of the 19th century, the U.S. Congress authorized the first federal navigation improvements to be constructed in the Town's harbors, including dredged channels from Long Island Sound to the wharves in Greenwich and Cos Cob harbors. Since then, the navigation projects have been modified and expanded several times as they evolved from facilitating maritime commerce to serving pleasure craft. The federal lighthouse on Great Captain Island, a mile offshore and near the main shipping lanes in Long Island Sound, was constructed in 1829.

By the 1920s, Greenwich had the highest per capita income of any town in the nation and the building of waterfront estates continued along the entire shoreline. In addition to the residents who owned large tracts of land, many others owned or rented smaller homes and the need developed for public land for recreational purposes. Land for the first public park was bequested by Robert Bruce on the Davis Mill Pond near the center of Town. Bruce Park was thereby established in 1908 and improved for public use. Ten years later the Town purchased property on the west shore of Byram Harbor and Byram Park was built. Binney Park on the creek flowing into Greenwich Cove was established in 1927. In the 1940s and 1950s, prominent waterfront parks such as Greenwich Point Park (Tod's Point) and Roger Sherman Baldwin Park at the head of Greenwich Harbor were established. Most of Great Captain Island was acquired by the Town in 1966; the lighthouse property on the island was acquired in 1973.

HARBOR MANAGEMENT HISTORY

The Town's coastal location on Long Island Sound has been a major and constant influence affecting growth and development in Greenwich since the first settlement in 1640. The coastal location has provided the Town and its citizens with vital economic, environmental, and cultural opportunities and benefits throughout the Town's history.

In 1949 and 1955, the Connecticut General Assembly enacted Special Legislative Acts 288 and 93, respectively, giving the Board of Selectmen unique harbor management authority to make rules, regulations, or orders respecting the use of Town waters by all vessels. (See Chapter Three of the Plan.) By another Special Act in 1975 (Special Act 75-53), the General Assembly validated all actions of the Town pursuant to the powers granted by the 1955 Act, and ratified, confirmed, and approved all provisions of the 1955 Act and the powers and authority thereby granted to the Town. Special Act 75-53 was subsequently incorporated in the Town Charter as Sec. A-11.

In 1980, the CCMA established the state's policies for both conservation of natural coastal resources and beneficial use of those resources. The Town then established its own planning and zoning provisions to address the Town's coastal management issues. The Planning and Zoning Commission adopted appropriate modifications to the Town's land use policies and zoning regulations to protect water-dependent uses and achieve other goals for beneficial use and conservation of coastal resources. These planning and zoning initiatives recognized the quality of life and economic benefits associated with use of the Town's coastal area as well as the need to ensure that coastal resources and beneficial water-dependent uses are properly sustained.

Today, the attention given by Greenwich officials and planners to the Town's shoreline and harbor areas continues to reflect the Town's foresighted efforts to address the ongoing pressures and interest for use of Town and privately owned properties on and near the shoreline.

In 2008, the First Selectman of the Town established a 15-member advisory committee including representatives of Town agencies and interested stakeholders. The committee's purpose was to advise the BOS on matters concerning management of the GHA and the Town's harbors.

Pursuant to the authorities provided by the Special Legislative Acts of 1949 and 1955 and Sec. 307 of the Town Charter, the BOS in 2008 initiated several programs to strengthen the Town's role in guiding use and conservation of the GHA, and to address several harbor management issues

of interest to the public. In this regard, the BOS reaffirmed the “Rules and Procedures for Greenwich Harbor and Cos Cob Harbor” adopted by the BOS in 1985; supported establishment of a computerized boat mooring registration system; supported establishment of a special account within the Town’s General Fund to receive all mooring permit fees; established a policy that all such fees may be used only for purposes of managing and improving the GHA for the benefit of the public; and actively pursued, in coordination with the USACE, specific planning initiatives to achieve maintenance dredging of the federal navigation channel in the Town’s Cos Cob Harbor.

In 2009, the Town’s Planning and Zoning Commission updated the Town’s 1998 POCD, emphasizing the value of the Town’s coastal neighborhoods and resources and calling for long-range planning to guide beneficial use and conservation of the Town’s navigable waterways. It included a recommendation calling for the Town to manage its waterways through development and adoption of a Town Harbor Management Plan, utilizing authority provided to the Town by the Connecticut General Statutes.

In 2013, the RTM, utilizing authority provided by Sections 22a-113k through 22a-113t of the Connecticut General Statutes, adopted an ordinance, proposed by the BOS, establishing the Greenwich HMC. Among other powers, duties, and responsibilities, the HMC is authorized to prepare, maintain, and implement the Plan for the most desirable use of the Town’s coastal and navigable waterways.

THE GREENWICH HARBORS AREA

For harbor management purposes, the Town’s municipal jurisdiction over coastal waters of Long Island Sound encompasses a broad geographic area including tidal and navigable waters, other natural coastal resources, and a number of distinct and well known harbors and coves that support a diversity of water-dependent uses. This jurisdictional area, defined in Section 307 of the Town Charter, is the area for which the 1949 and 1955 Special Legislative Acts, the Charter, and the Greenwich Municipal Code (Town Code) authorize the Selectmen to make reasonable rules and regulations regarding the use of the water by all vessels. For the purpose of the Plan, this jurisdictional area is herein referred to as the GHA. Defined in the Charter and Special Legislative Act 93 (see map 2-3; see also map 1-1 in Chapter One of this Plan), this area is:

“.. bounded on the east by so much of the line separating the Town of Greenwich from the Town of Stamford as lies north of the forty-first parallel of latitude; on the south by a line running from the intersection of the Town line with the forty-first parallel westerly to Flat Neck Point, thence southwesterly through lighted bell buoy No. 1 east of Little Captains Island, thence southwesterly to red nun buoy No. 2 immediately southwesterly of Great Captains Island, and thence to the State line on a line running northwesterly through black can buoy No. 1 on Mansuring Reef at the entrance to Port Chester Harbor; on the west by the line between New York and Connecticut, and on the north by the shore line of the Town of Greenwich...”

To summarize, the GHA is waterward of the MHW line, bounded on the west and east, respectively, by the jurisdictions of the Village of Port Chester, New York and City of Stamford, Connecticut. The jurisdictional boundary between Greenwich and Port Chester is surveyed by the

State of Connecticut.¹ The boundary between the Town and Stamford in Tomac Creek and Long Island Sound, however, is not defined by any known governmental survey. On the south, the GHA is bounded by a line that runs, within the projection of the boundary lines of the neighboring municipalities, generally along the outside of Flat Neck Point, Little Captains Island, Great Captains Island, and Mansuring Reef at the entrance to Port Chester Harbor.² The GHA is not to be confused with Greenwich Harbor which is one of the Town's several distinct inner harbors within the GHA.

The Town's irregular shoreline along the GHA covers about 27 miles according to the POCD; includes 30 islands (seven are Town-owned); and supports a number of different waterfront uses, including residential, recreational, commercial, and open space uses. The GHA also includes a number of distinct harbors and coves including, from west to east, the Byram River/Port Chester Harbor (so much as lies within the Town's boundaries)³, Byram Harbor, Greenwich Harbor, Smith Cove, Indian Harbor, Cos Cob Harbor, Greenwich Cove, and Tomac Creek. Several of these harbors and coves are defined in Chapter 7, Sec. 7-8 of the Town Code as distinct "inner harbors" of the Town, and are described later in this chapter.

Conditions Affecting Navigation

Federal navigation projects authorized by Acts of Congress to facilitate navigation and provide opportunities for boat mooring and anchoring have been established in three Town harbors. These projects, maintained by the USACE, have been established in Cos Cob Harbor (Mianus River project), Greenwich Harbor, and the Byram River. The USACE's New England District is responsible for maintenance dredging of the Cos Cob and Greenwich Harbor projects to maintain the projects' authorized dimensions as necessary. In the Byram River, the navigation project is known as the Port Chester Harbor; maintenance of this navigation project is the responsibility of the USACE's New York District.

¹ See the 1997 "Connecticut-New York State Boundary Line Perambulation" by the Connecticut Department of Transportation.

² The territorial limits of the Town of Greenwich extend southward to the Connecticut/New York boundary in the center of Long Island Sound. Recognizing that municipal harbor management authority does not extend to the center of the Sound, the area traditionally managed by the Town pursuant to the Special Legislative Acts and defined in the Town Charter is herein defined as the jurisdiction of the HMC and Plan. In addition, it is recognized that locations of aids to navigation used to identify the jurisdictional area defined in the Charter and Special Legislative Act 93 may have changed over time. As a result, the Plan recommends a jurisdictional area defined with reference to geographic coordinates.

³ For the purpose of the Plan, the harbor of the Town identified in Sec. 7-8 of the Town Code as Port Chester Harbor, "so much as lies in Connecticut and north of the southernmost end of the break-water on Byram Point," is called Byram River/Port Chester Harbor.



Photo 2-1: The federal channel in Greenwich Harbor follows the shoreline of the Steamboat Road Peninsula

Since construction and maintenance of federal navigation projects are funded by federal tax dollars, the USACE has a policy that all navigation projects must be “open to all on equal terms.” This policy is to ensure that all citizens have an equal opportunity to benefit from the projects.

Historically, the federal channels in the GHA have not been subject to very rapid shoaling and maintenance dredging has been required at relatively wide intervals. Dredged material from the GHA has typically been placed in open water disposal sites in Long Island Sound. Maintenance dredging was conducted by the USACE in 1985 in the Mianus River channel. At that time, the Town established “Rules and Regulations for Greenwich Harbor and Cos Cob Harbor” to achieve compliance with the USACE’s “open to all on equal terms” policy. (See Appendix H of the Plan.) Most recently, at the request of the Town and with funds provided by the State of Connecticut, the USACE conducted maintenance dredging of the Mianus River navigation project during the 2016-2017 dredging season.

In addition to the federal channels, non-federal navigation channels maintained by the Town also provide access to boating facilities in the GHA, notably in Byram Harbor and Greenwich Cove.

Aids to navigation in the GHA include federal aids maintained by the U.S. Coast Guard and private aids maintained by the Town’s Department of Parks and Recreation, operators of commercial marine facilities, and private clubs.

Navigation in the GHA is affected by weather, tide, and many other natural and man-made conditions. In summer, the prevailing southwest wind averages eight miles per hour. In winter, the prevailing wind is northwesterly and averages 12 miles per hour. Temperature throughout the year normally ranges from below zero F to over 100 degrees F with an average temperature of 53 degrees. Mean tidal range in the GHA is approximately 7.09 feet.

Coastal Resources

The Town's character and quality of life are intrinsically tied to the natural coastal resources in the GHA. These resources provide vital ecological functions related to fish and wildlife habitat (including shellfish habitat), water quality, flood and erosion control, and scenic quality. They also provide significant economic, recreational, and cultural values and benefits.

In addition to their natural values, the coastal resources provide opportunities for beneficial use and have significant economic, recreational, historic, scientific, and educational values. They enhance the value of waterfront properties, for example, and provide opportunities for the variety of boating and other water-dependent activities that provide significant recreational and economic benefits to the Town and its citizens.

A variety of coastal resources is found in and adjacent to the GHA, including, but not limited to, the area's tidal waters and embayments, intertidal flats, tidal wetlands, beaches, islands, floodplains, and living marine resources such as finfish and shellfish. The several tributaries and watersheds that drain into the GHA through the Town also have significant natural values and ecological functions. In addition to the major watersheds of the Byram and Mianus Rivers, the smaller watersheds associated with Horseneck Brook, Strickland Brook, Brothers Brook, Long Meadow Creek, Tom's Brook, and Tomac Creek also affect the GHA and Long Island Sound.

There is a fundamental relationship among these tributaries, watersheds, the GHA, and Long Island Sound. Storm water runoff from the watersheds eventually enters the GHA and Sound, affecting the quality of surface waters. Environmental quality of the GHA and Sound may be affected by contaminants emanating from upland building and construction projects and storm water runoff from roads and highways. The environmental quality of the Sound depends significantly on the environmental quality of its many tributaries and watersheds, including the watersheds draining into the GHA. All Town agencies recognize that storm water runoff from throughout the Town's watersheds affects water quality in the GHA and they apply cooperatively their various authorities to identify and correct sources of pollution.

The location and extent of coastal resources were identified by the Town in the course of developing the Town's coastal management policies and zoning requirements and are available for review in the Planning and Zoning Office.

Parts of the Town's shoreline, particularly in the Byram and Old Greenwich areas, have been subject historically to severe tidal flooding, most notably during hurricanes in the 1930s, '40s, and '50s; the December 1992 Nor'easter; and Hurricane Irene and "Superstorm" Sandy in 2011 and 2012, respectively. Shoreline flooding and erosion are also caused by more frequent spring and winter storms. Portions of the shore area fall within coastal flood hazard areas identified on Flood Insurance Rate Maps. Flood boundary locations shown on those maps predict the flooding extent of the theoretical 100-year (one percent chance) flood.



Photo 2-2: Intertidal resources, including in Long Meadow Creek, provide many environmental benefits.

In recent years there have been a number of accomplishments with regard to understanding and improving water quality conditions in the GHA and Long Island Sound, including improvements of municipal wastewater collection and treatment systems along the Sound (such as the significant improvements to the Town's Grass Island wastewater treatment plant over the past decade) and establishment of water quality monitoring and educational efforts. Nevertheless, pollution and the risk of pollution still exist. Bacteria and other pollutants can affect the enjoyment of boating activities, the vitality of fish and wildlife, and the health of those who come in contact with the water. Simply stated, water pollution in the GHA would diminish the quality of life and should be of concern to everyone.

Pursuant to the Connecticut Water Pollution Control Act, all state waters are classified by DEEP in accordance with state water quality standards. The classifications establish designated uses for surface waters and identify the criteria necessary to support those uses. The classifications applied in the GHA include "SA" and "SB."

Class "SA" is the highest classification applied to the state's coastal and marine surface waters. Designated uses of class "SA" waters are "marine fish, shellfish and wildlife habitat, shellfish harvesting for direct human consumption, recreation, and all other legitimate uses including navigation." Designated uses of class "SB" waters are "marine fish, shellfish and wildlife habitat, shellfish harvesting for transfer to a depuration plant or relay (transplant) to approved areas for purification prior to human consumption, recreation, industrial and other legitimate uses including navigation."

Much of the GHA is classified by the State of Connecticut as "SA." Areas with the "SB" classification are in the Byram River/Port Chester Harbor and the inner portion of Greenwich Harbor between Field Point on the west and the Steamboat Road peninsula on the east. At times, bacterial contamination, excessive nutrients, and other pollutants are found in the GHA in amounts that do not support, based on state-established standards, the designated uses of class "SA" and "SB" waters. As a result, DEEP has determined that some areas of the GHA do not meet the assigned state water quality goals. Those areas and the cause of their impairment are included on the state's list

of impaired water bodies. (See 2014 “State of Connecticut Integrated Water Quality Report, Final,” October 2014, by DEEP.)

Water quality has a significant effect on the quality of the Town’s shellfish resources which consist of not only shellfish populations but also the habitat required for those populations to reproduce, survive, and flourish. Significant shellfish beds with populations of hard- and soft-shell clams, razor clams, mussels, oysters, and slipper shells are found throughout the GHA. Pursuant to state laws originally enacted in the 1800s, three basic types of shellfish grounds totaling 5,630 acres have been designated in and near the GHA for shellfishing and shellfish management purposes: 1) private grounds (often called “Town grounds”) designated by the Town and worked by commercial shellfishing companies that own the exclusive rights to raise shellfish on these grounds; 2) “natural” shellfish grounds as defined by decrees of the Superior Court to be left open to the general public; and 3) state grounds within the jurisdiction of the Connecticut Department of Agriculture’s Bureau of Aquaculture where commercial shellfishing is in accordance with franchise rights (granted by the state prior to 1915) or lease arrangement with the state.

The Greenwich Shellfish Commission manages use and conservation of the natural shellfish grounds. Within those grounds, shellfishing areas currently open for recreational harvest are found in Greenwich Cove and the waters around the Captain Islands.

The Bureau of Aquaculture has calculated 1,244 acres of natural shellfish grounds, 660 acres of town grounds, and 3,726 acres of state-leased or franchised shellfish grounds within the Town’s territorial waters. (See map 2-3.)

Waters and intertidal areas of the GHA have been classified for shellfishing purposes by the Bureau. These classifications to protect the public health are called shellfish growing area classifications and are distinct from the water quality classifications established by DEEP. Shellfish growing area classifications currently applied in the GHA are: “Approved,” “Conditionally Approved,” “Restricted-Relay,” and “Prohibited.”

Intertidal resources in the GHA, including tidal wetlands and intertidal flats subject to alternating periods of tidal inundation and exposure, are of particular ecological significance. As areas of high nutrient value and biological productivity, the wetlands provide detrital products which become the food of organisms living in Long Island Sound, including crabs, worms, snails, finfish and shellfish. Tidal wetlands also provide habitat, nesting, feeding, and refuge areas for shorebirds and serve as the nursery ground for larval and juvenile forms of many of the Sound’s marine organisms.

Intertidal flats are gently sloping or flat areas usually devoid of vegetation and composed of muddy, silty and fine sandy sediments. They are found along the shoreline throughout the GHA and provide natural values similar to the values provided by wetlands. Intertidal flats serve as sources and reservoirs of nutrients for a variety of marine organisms. Microflora and algae, along with decaying marsh plants, can contribute to a vast reservoir of fragmented organic matter or detritus in the intertidal area. Shellfish are among the conspicuous benefactors of the productive intertidal flats in the GHA. In addition, intertidal flats enhance shellfish habitat by acting as a sink for toxic material and other pollutants.

Water and Waterfront Uses and Activities

The shoreline of the GHA is used for residential, recreational, and commercial purposes. There are a number of distinct shore area residential neighborhoods and villages, including the Cos Cob, Old Greenwich, and Byram villages, that developed with a connection to a specific harbor of the Town and retain their historic and beneficial patterns of development.

Commercial development along the shoreline, including commercial marinas and other boating facilities, is generally limited to the Town's four Waterfront Business Districts: one on the Byram River/Port Chester Harbor; one on Greenwich Harbor; and two on Cos Cob Harbor. These zoning districts were established to assure that limited waterfront areas are reserved for the uses they are uniquely suited for and not pre-empted by uses that are not water-dependent and which therefore can be more appropriately located elsewhere.

The GHA shoreline is also characterized by substantial waterfront parks providing exceptional and varied opportunities for public access to the harbors of the Town and Long Island Sound for boating and other beneficial purposes. These include Greenwich Point Park on Greenwich Cove and Long Island Sound, Cos Cob Park adjoining Cos Cob Harbor, Roger Sherman Baldwin Park and Grass Island Park adjoining Greenwich Harbor, Byram Park on Byram Harbor, and the Town islands (Great Captain and Little Captain) in the outer harbor. A significant feature of Grass Island Park is the Town's wastewater treatment plant which operates alongside public boating facilities.

The Town is a significant center of recreational boating in western Long Island Sound. A number of facilities serving the boating public are located on the Town's waterfront and in the GHA. These facilities include docks, boat slips, moorings, and boat launching ramps as well boat sales, service, repair, and storage facilities. Boating facilities include those operated by the Town for public use, including the Byram, Grass Island, Cos Cob, and Greenwich Point municipal marinas, as well as privately owned facilities. The privately owned facilities include commercial marinas, boatyards, and excursion/charter boat businesses. Several private waterfront clubs provide recreational boating opportunities for their members and guests. In addition, private docks enable boating access from many waterfront residential properties.

Significant portions of the shoreline are also designated and managed for conservation purposes, including the Grass Island conservation area, the Great Captain Island bird sanctuary, the Shell Island wildlife sanctuary, and the Calf Island unit of the Stewart B. McKinney National Wildlife Refuge.

Along with the recreational boating activities, a variety of other water-dependent uses take place in and adjoining the GHA. These include swimming, commercial and recreational fishing and shellfishing, waterfowl hunting, land-based recreational fishing, excursions to islands in the GHA, and more passive recreational activities such as walking along the shoreline, picnicking, island camping, and the enjoyment of scenic views of the GHA.



Photo 2-3: Grass Island Park and Marina and the Town's wastewater treatment plant on Greenwich Harbor.

Subject to specified restrictions concerning minimum distance from dwellings and other restrictions, waterfowl hunting is permitted by state law waterward of the intertidal area unless specifically prohibited by regulations established by DEEP. In the GHA, waterfowl hunting is prohibited in areas of Byram Harbor, Greenwich Harbor, Cos Cob Harbor, and Greenwich Cove. (See map 2-4.)

Numerous boat mooring locations have been established in the GHA, including in the federal anchorage basins in Greenwich Harbor, the special anchorage areas in Cos Cob Harbor, and elsewhere. Mooring locations are used by persons who require access through Town facilities to reach their moored vessels, by the members of private waterfront clubs, and by waterfront property owners.

Recreational vessels moored in Byram Harbor, Greenwich Harbor, Cos Cob Harbor, and Greenwich Cove add to the vitality of water-dependent uses of the GHA. Many moorings are maintained in large managed fields, and include moorings placed and maintained by private clubs in accordance with area permits issued by DEEP and the USACE and Town-established agreements, as well as moorings placed and used individually by members of the general public in accordance with Town rules and regulations. In 2016, the Harbor Master reported a total of 455 individual-private mooring locations in the GHA and 350 mooring locations managed by private clubs.

The location of water-dependent uses on the GHA shoreline, including public and private facilities, is shown on maps 2-5 through 2-18.



Map 2-4: Waterfowl Hunting Areas

Planning and Development Initiatives

Commercial development and redevelopment proposals affecting the waterfront in the Town's four designated Waterfront Business Districts are subject to the use regulations and special requirements of the Town's WB Zone. To implement the coastal management goals of the CCMA and POCD, the uses permitted in the WB Zone are water-dependent uses such as recreational and commercial boating and fishing facilities, water-based recreational uses, and dock facilities. Continued pressure for redevelopment in the WB Zone is recognized by the Town's land-use agencies. In 2015, the Board of Estimate and Taxation approved funds for the 2015/16 Fiscal Year to study and, if necessary, revise the WB Zone regulations to maintain consistency with the POCD.

Elsewhere along the waterfront, Town planning and development initiatives include efforts to enhance opportunities for public access, including access for boating and other beneficial purposes, to and along the GHA through the Town parks, marinas, and islands. A major initiative includes the recently opened Cos Cob Park on the site of the former Cos Cob Power Plant. The common theme in all these Town projects is not new; it can be seen throughout the Town's history; and involves connecting the Town with its harbors and Long Island Sound while protecting the Town's most valuable natural assets for the benefit of future generations.

When considering potential development initiatives that may affect the GHA, Town planners anticipate that a significant number of applications for work in the GHA will continue to be submitted each year to DEEP and the USACE for approval. Those applications will include, but not be limited to, proposals by water-dependent facility operators, residential property owners, and the Town to construct or extend docks and piers to reach navigable water in the GHA and/or increase

docking capacity. As a result, state and federal decisions will continue to have a significant influence on the GHA and it will be in the best interest of the Town to continue to strengthen its influence on those decisions. To do so will require, in part, continued informed and thoughtful review of the applications submitted to DEEP and the USACE, and pursuit of available means to ensure that the state and federal decisions incorporate the Town's input to the maximum extent possible, and are consistent with the Town's goals and policies for use and conservation of the GHA.

BYRAM RIVER / PORT CHESTER HARBOR

Byram River/Port Chester Harbor is formed by the tidally influenced portion of the Byram River. The harbor includes the navigable waterway in the Byram River, so much as lies within the Town's jurisdiction, upstream from Byram Point to the head of navigation at the Mill Street Bridge, a distance of about 1.7 miles. The river begins in New York State and its main stem flows south about 20 miles before entering Long Island Sound. The 29-square mile Byram River watershed includes parts of Greenwich and five towns in New York State.

The harbor, including that part of the waterway within the jurisdiction of the Village of Port Chester, supports a mix of recreational, commercial, and industrial water-dependent uses and is served by the Congressionally authorized Port Chester Harbor Federal Navigation Project, including a navigation channel 100 to 175 feet wide with an authorized depth of three to 12 feet measured at Mean Lower Low Water (MLLW), a breakwater at Byram Point, and an anchorage area with authorized depth of 12 feet MLLW.

Prominent waterfront features include the Connecticut Turnpike (I-95) bridge crossing over the harbor about half way between Byram Point and Mill Street; the several waterfront terminals and the village wastewater treatment plant site on the Port Chester shoreline; and recreational boating facilities, including commercial boatyard and marina facilities and boat slips associated with waterfront restaurants and residential development. The Town's WB zoning district covers all of the waterfront properties along South Water Street, from Mill Street south to the I-95 bridge. There are several public areas on both shorelines that provide access to the harbor. (See map 2-5.) Waterfront land-use in the WB Zone, including a review of Town-owned properties providing opportunities for future access to the harbor, is described in more detail in the Town's Byram Comprehensive Plan (updated May 2011).

The 2011 Byram River Watershed Management Plan describes water quality in the harbor as impaired by bacterial pollution to the extent that shellfish and recreation are adversely affected. Pollution is attributed to sewage from poorly functioning septic systems, illicit sanitary connections to storm water pipes, wildlife, pets, sewage from boats, marinas, and runoff from urban infrastructure such as roads, bridges, parking lots and other impervious surfaces. Also described in the Watershed Management Plan, administrative orders have been issued previously by the U.S. Environmental Protection Agency to the Village of Port Chester to identify and repair illicit storm sewer connections.



Photo 2-4: The view south over the Byram River/Port Chester Harbor; Mill Street Bridge in foreground; Port Chester, NY to right.

BYRAM HARBOR

Byram Harbor includes the navigable waters bounded on the west by the Long Island Sound shoreline of the Byram area of the Town, and on the east by the area of the Town known as Belle Haven. Byram Point on the west and Field Point on the east are prominent landmarks that frame the harbor. The Metro North Railroad and I-95 pass close by the shoreline of the northern part of the harbor. (See map 2-6.)

On the west, the harbor's shoreline is characterized by the waterfront homes along Byram Shore Road, virtually all with docks and piers for boating access, and by the Town's Byram Park. The park includes the Town's Byram Marina, one of four municipal boating facilities in the GHA, as well as beach facilities and waterfront recreation and open space areas. The marina provides boat slips and access to nearby Town-managed mooring locations in the harbor. The general locations of individual-private boat moorings identified by the Harbor Master in the period 2012-2016 are shown on map 2-7.

Within the boundaries of Byram Park, the Byram Shore Boat Club operates on Town-owned land in accordance with a lease agreement with the Town. Several small islands surround the marina. The nearby Shell Island is owned by the Greenwich Land Trust and managed as a nature preserve.

On the east, the harbor shoreline is characterized by waterfront homes and the private Belle Haven Club which operates and maintains beach and marina facilities along with boat mooring locations for its members and guests. Boat moorings controlled by the club are within a club-managed area delineated in mooring area permits issued by DEEP and the USACE.



Photo 2-5: Byram Harbor looking north over Shell Island; Byram Park and Marina to left.

Tom's Brook flows under the Metro North Railroad and I-95 and enters the northern part of the harbor through a box culvert. The brook's watershed includes the Town's Holly Hill waste disposal and recycling facility where the Town is implementing storm water best management practices to address runoff from the facility.

GREENWICH HARBOR

Greenwich Harbor includes all of the navigable waters north of an imaginary line between Field Point on the west and Tweed Island on the east. In addition to the main harbor (commonly known as Greenwich Harbor), it also includes Smith Cove and Indian Harbor—two other distinct bodies of water between prominent points of land. (See map 2-8.)

The main harbor, near the commercial center of the Town, is bounded by Field Point on the west and the Steamboat Road peninsula on the east. This body of water supports a variety of Town and private recreational boating facilities and activities, is served by the Greenwich Harbor Federal Navigation Project, and has provided a “harbor of refuge” for local and visiting boaters since the 1940s. The navigation project includes a 1.4-mile long channel 100 to 140 feet wide with a congressionally authorized depth of 12 feet MLLW, and two adjoining anchorage basins, including one historically called a “hurricane hole” providing a sheltered location for vessels during severe storms. (See map 2-9 providing a general description of the navigation project.)

Prominent features of the main harbor include the Town-owned Grass Island peninsula containing the Town's Grass Island Marina, a public boat launching ramp open to all, and the Town's wastewater treatment plant. The marina provides boat slips and access to mooring locations managed by the Town in the federal anchorage basins. A vessel waste pump-out facility available for public use free of charge is also provided. On the west side of Grass Island are the marina facilities of the Greenwich Boat and Yacht Club operating on Town-owned land in accordance with a lease agreement with the Town. The general locations of individual-private boat moorings identified by the Harbor Master in the Greenwich Harbor area in the period 2012-2016 are shown on map 2-10.



Photo 2-6: Looking over Greenwich Harbor toward Grass Island; Indian Harbor in the foreground, then Smith Cove, the Steamboat Rd. peninsula, and the main harbor.

Near the northern limit of the navigation project is the Town's Roger Sherman Baldwin Park providing waterfront open space for passive recreation and special events. On the east side of the park are the docks from which Town ferries provide public access to the Town's island recreation areas. Also on the east side of the park are the docks and base of operations of the Greenwich Police Department's Marine Operations Division.

On the west, south of Grass Island, the harbor's shoreline is characterized by waterfront homes along Field Point, with docks and piers for boating access. On the east, commercial developments located in the Town's WB Zone along Steamboat Road have established waterfront docking facilities. The private Indian Harbor Yacht Club, a prominent water-dependent facility near the southern terminus of Steamboat Road, operates and maintains waterfront facilities and nearby boat mooring locations for its members and guests. Boat moorings controlled by the club are within a

club-managed area delineated in mooring area permits issued by DEEP and the USACE. In addition, per the Town's "rules and regulations for Greenwich Harbor and Cos Cob Harbor" established to achieve compliance with the USACE's "open to all on equal terms" policy, the club historically has assisted the Town, as its agent, with administration of mooring locations in a portion of the federal anchorage. The Town Landing at the foot of the road provides public views of the GHA.

Boating activities also take place in Smith Cove and Indian Harbor (also known as Chimney Corner) but water depths are significantly more shallow than in the main harbor. The shoreline is characterized by waterfront homes, many with small private docks and floats, and intertidal flats.

Horseneck Brook flows through the central portion of the Town and, after flowing beneath the Metro North Railroad and I-95, discharges into the northernmost part of the harbor through a large culvert. As a result of flooding issues within the brook's 3,900-acre watershed, the Town is pursuing substantial drainage system improvements in the watershed. Storm water from the Town's Central Business District drains into the harbor through two 60-inch culverts to the east of Roger Sherman Baldwin Park.

The inner portion of Greenwich Harbor, along with Smith Cove and Indian Harbor, are included on DEEP's list of impaired water bodies due to bacterial and nutrient pollution adversely affecting habitat for marine fish, other aquatic life, and wildlife. Potential sources of bacterial pollution identified by DEEP include permitted and non-permitted storm water, illicit discharges, insufficient septic systems, and nuisance wildlife.

COS COB HARBOR

Cos Cob Harbor is defined by the tidally influenced reach of the Mianus River, downstream of the Mianus Pond Dam. The southern boundary of the harbor is marked by an imaginary line in Long Island Sound between Horse Island on the west and Elias Point on the east. To the west of the harbor is the Cos Cob area of the Town and to the east is the area of the Town known as Riverside. (See maps 2-11 and 2-12.) Originating in New York State, the Mianus River flows south about 14 miles before entering Long Island Sound. The river's watershed covers about 35 square miles in parts of five towns, including Greenwich and Stamford in Connecticut and Bedford, North Castle, and Pound Ridge in New York.

The harbor, served by the Mianus River Federal Navigation Project, supports a variety of water-dependent facilities and businesses that provide access to and from the harbor and Long Island Sound. The navigation project consists of a 1.2-mile long, congressionally authorized federal navigation channel with an authorized depth of six feet at MLLW extending from the more open waters of the harbor up the river to the head of navigation at the Rt. 1 Bridge. (See map 2-13 providing a general description of the navigation project.) Maintenance dredging to restore the channel's authorized dimensions was conducted by the USACE, at the request of the Town, during the 2016-17 dredging season. The Mianus Pond Dam and Fishway, just upstream of the Rt. 1 Bridge, marks the upstream extent of tidal influence on the river. The fishway allows migrating fish to swim over the dam.

The Town-owned Cos Cob Park opened on the west side of the harbor in April 2015 on the site of the former Cos Cob Power Plant, and includes an athletic field, waterfront walkways, and picnic areas. Other prominent features include the I-95 and Metro North Railroad bridges crossing the navigable waterway.



Photo 2-7: The River Road Waterfront Business District on Cos Cob Harbor is a center of water-dependent uses.

A significant concentration of water-dependent facilities and businesses is found on the west side of the harbor, including facilities and businesses within the Town's WB Zone along River Road. (The WB Zone also encompasses property adjoining Cos Cob Park.) Within the River Road WB Zone are marinas; boat service, storage and repair yards; boat dealers; suppliers of boating equipment; three rowing facilities; and charter companies providing services and facilities for local and visiting boaters. A vessel waste pump-out facility available for public use free of charge is provided at Beacon Point Marine.

Historically, the west side of the harbor supported businesses involved with the waterborne transport of bulk materials. Today, the water-dependent operations provide service to the region's recreational boating industry and opportunities for public access to the harbor and Long Island Sound, including a public access walkway required as a condition of development plan approval by the Planning and Zoning Commission.

Waterfront land-use in the WB Zone, including a review of Town-owned properties providing existing and future opportunities for access to the harbor, is described in more detail in the Town's 2013 Cos Cob Neighborhood Plan.

Also on the west side of the harbor is the Town's Cos Cob Marina. The marina provides boat slips and a public dock for access to the harbor and Long Island Sound. Nearby, the Mianus River Boat and Yacht Club operates its marina on Town-owned land in accordance with a lease agreement with the Town. A vessel waste pump-out facility available for public use free of charge is provided on the Town-owned public landing known as the Ferris Dock.

The harbor's western shore, south of Cos Cob Park, is characterized by waterfront homes. On the eastern shore is the private Riverside Yacht Club, a prominent water-dependent facility that provides boat slips and access to nearby mooring locations used by club members and guests. Mooring locations have been established in two Coast Guard-designated "special anchorage areas" identified on published navigation charts. In addition, per an agreement with the Town, the club historically has assisted the Town, as its agent, with administration of mooring locations in the Special Anchorage Areas.

Significant coastal resources associated with the harbor, in addition to its navigable waters, include the intertidal flats and tidal wetlands along the shoreline, and the Cos Cob Mill Pond with a tidal connection to the harbor. The Mill Pond, part of the GHA, is described in the Cos Cob Neighborhood Plan as a significant cultural, historic, and environmental asset of the Cos Cob neighborhood. The pond's aquatic habitat provides nutrients and small fish that serve as food for a variety of birds and larger fish, including herons and egrets raising their young on Town-owned Great Captain Island in the GHA. Residents report seeing many different species of ducks, geese, wading birds and other water birds throughout the year. On the west side of the pond, the Town's two-acre Mill Pond Park provides water views. Strickland Brook, a tributary of the Mianus River with a history of flooding issues, flows for about five miles before entering the Mill Pond.

Additional information concerning the natural values of the Mianus River is provided in the 2012 Mianus River Watershed-Based Plan, funded in part by DEEP and prepared to promote measures to reduce pollution and otherwise maintain and enhance environmental quality in the watershed.

GREENWICH COVE AND TOMAC CREEK

Greenwich Cove, sheltered from Long Island Sound by the peninsula that forms Greenwich Point and Flat Neck Point, provides opportunities for boating, shellfishing, and other beneficial uses of the water and shoreline. The irregular shoreline of the cove is characterized by waterfront homes, many with small private docks and floats, and by the Town's Greenwich Point Park. Long Meadow Creek flows into the cove from the north, through the Town's Binney Park and under the Metro-North Railroad and West End Avenue. Under normal conditions, Binney Pond is not exposed to tidal exchange and therefore not subject to the coastal regulatory programs of DEEP. For the purpose of defining the GHA, West End Avenue marks the upstream extent of the GHA on Long Meadow Creek while it is recognized that actions further upstream may affect the GHA and be of interest to the HMC.

There is no commercial development on, in, or contiguous to the cove. To the west of the cove is the Riverside area of the Town and to the east is the area of the Town known as Old Greenwich. (See map 2-14.)

Greenwich Point Park is the Town's largest waterfront park, providing opportunities for beach recreation, picnicking, walking, fishing, shellfishing, and enjoyment of scenic views of the cove and Long Island Sound. In addition, the Town's Greenwich Point marina is located on the park shoreline. The marina provides boat storage space, a launching ramp, and a public pier and dock for access to the cove and the Town-managed mooring locations in the cove. The general locations of individual-private boat moorings identified by the Harbor Master in the Greenwich Cove area in the period 2012-2016 are shown on map 2-15. A nonfederal channel provides a navigable connection between Long Island Sound and the cove. Nearby the Town marina, the Old Greenwich Yacht Club operates on Town-owned land in accordance with a lease agreement with the Town, and, among other activities, sponsors the Town's community sailing program.

Significant coastal resources associated with the cove, in addition to its navigable waters, include the intertidal flats along much of the shoreline, tidal wetlands adjoining Long Meadow Creek, the cove's extensive shellfish resources, and Eagle Pond with its tidal connection to the cove. Greenwich Point Park is identified by Audubon Connecticut and DEEP as an Important Bird Area, and is a significant stopover point for many species of migrating birds, and many waterfowl winter offshore and in Eagle Pond.



Photo 2-8: Greenwich Cove looking over Greenwich Point Park

The small cove at the mouth of Tomac Creek is also designated as a harbor of the Town. It is characterized by waterfront residential development and the Town-owned public area known as the Tomac Creek overlook at the foot of Tomac Road. A portion of the municipal boundary between the Town and City of Stamford runs through the cove. The private Rocky Point Club is located on the Old Greenwich shoreline west of the Creek. The general locations of individual-

private boat moorings identified by the Harbor Master along the Old Greenwich shoreline and in the Tomac Creek area in the period 2012-2016 are shown on map 2-16.

OUTER HARBOR

The Outer Harbor of the Town encompasses all other navigable waters within the GHA outside of the six distinct inner harbors of the Town (Byram River/Port Chester Harbor, Byram Harbor, Greenwich Harbor, Cos Cob Harbor, Greenwich Cove, and Tomac Creek). For the purpose of the Plan, the boundaries of the Outer Harbor in Long Island Sound conform to the boundaries set forth in the Town Charter as marking the outer limits of the area within which Town's Board of Selectmen may make reasonable rules, regulations, and orders regarding the use of the water by all vessels. (See map 2-17.)

Prominent features of the Outer Harbor include the Town-owned islands Great Captain Island and Little Captain Island (also known as Island Beach) managed by the Town's Parks and Recreation Department for public recreation and conservation purposes. Both islands are moraines—glacially formed accumulations of rock and soil. Calf Island, an island formed on bedrock and one of eleven units of the Stewart B. McKinney National Wildlife Refuge, is also part of the Outer Harbor. (See map 2-6.)

The 17-acre Great Captain Island is about one mile south of Field Point and accessible by Town ferry from the public landing at Roger Sherman Baldwin Park and private vessels. The western portion of the island is managed for active recreation and includes a designated swimming beach, shelter, and restrooms. Camping is permitted by permit. The eastern part of the island includes a tidal lagoon and managed conservation area. The general locations of individual-private boat moorings identified by the Harbor Master in the vicinity of Great Captain Island in the period 2012-2016 are shown on map 2-18.

Great Captain Island is identified as an Important Bird Area by Audubon Connecticut and DEEP. Described by Audubon Connecticut, the island is the site of the largest heron and egret rookery in Connecticut, with over 300 nesting pairs of nesting egrets and night-herons observed. A large colony of Herring and Great Black-backed Gulls is also found on the island.

The 1868 lighthouse on the island's southeast shore, included in the National Register of Historic Places, has been restored and is managed as an historic site and 9/11 memorial. The Coast Guard has installed an automated light for navigation and the lighthouse no longer provides an official aid to navigation.

Public access to the four-acre Island Beach, about 3,500 feet east of the larger Great Captain Island, is also via Town ferry from the public landing at Roger Sherman Baldwin Park and private vessels. Island Beach is one of the Town's oldest public parks. It provides a designated swimming beach along with other amenities, including picnic tables, dressing rooms, restrooms, and covered shelters. Tidal wetlands and intertidal flats provide valuable coastal habitat on the south side of the island.

Managed by the U.S. Fish and Wildlife Service, the 31.5-acre Calf Island is the largest island in the GHA. The island supports a diverse coastal habitat including tidal wetlands, intertidal flats, rocky intertidal shore, sandy beach, mixed forest and coastal shrub land. It provides excellent wading bird habitat and is open to the public for wildlife observation and environmental education purposes.



Photo 2-9: Great Captain Island; lagoon, conservation area, and lighthouse historic site.

Chapter Three:

The Institutional Framework

This chapter describes agencies with harbor management authorities in the GHA. Specific responsibilities of these agencies for implementing the Plan are set forth in Chapter Seven of the Plan.

The general public and waterfront property owners also have significant interests in the GHA, as do several regional and private organizations. In addition, actions originating in other municipalities can affect the GHA and are noted in this chapter.



TOWN OF GREENWICH

A number of Town agencies have authorities affecting use and conservation of the GHA. In addition to the RTM, BOS, and HMC, the agencies with harbor management-related responsibilities are the Department of Parks and Recreation, Board of Parks and Recreation, Planning and Zoning Commission, Planning and Zoning Board of Appeals, Inland Wetlands and Watercourses Agency, Conservation Commission, Shellfish Commission, Police Department, Fire Department, Department of Health, Public Works Department, and Flood and Erosion Control Board.

Representative Town Meeting

The RTM—the Town’s legislative body—has significant authorities influencing the Town’s harbor management initiatives, including authorities for enacting Town ordinances, approving all Town expenditures over \$5,000, approving or rejecting nominations by the BOS to Town agencies, and approving appropriations. The RTM adopted the HMC Ordinance (Chapter 7A of the Town Code) creating the HMC and may adopt other ordinances affecting the GHA. (The HMC Ordinance is included in Appendix E of the Plan.) In addition, the RTM is responsible for adopting the Plan and any future amendments to the Plan. Any fees proposed by the HMC for activities within the scope of the Plan require approval by the BOS and RTM.



Photo 3-1: The view west over Greenwich Harbor in the GHA

Board of Selectmen

As the executive agency of the Town, the BOS exercises authorities that directly and indirectly affect use and conservation of the GHA. The First Selectman is the Town's Chief Executive Officer, responsible for administration of all offices of Town government. The BOS nominate the members of the HMC for approval by the RTM, review the HMC's budget requests, and provide leadership and direction for the Town's harbor management initiatives.

As noted, the BOS has significant harbor management authorities pursuant to Special Legislative Acts of the State of Connecticut, the Town Charter, and Town Code. These authorities are unique among Connecticut towns implementing harbor management plans using the municipal authority provided by the Connecticut General Statutes.

Pursuant to Special Legislative Acts 288, 93, and 75-53 enacted by the Connecticut General Assembly (see Appendix C of the Plan), the BOS has specific authorities for regulating use of the Town's coastal waters by all vessels, including authority to regulate the mooring and anchoring of all vessels, and authority for fixing vessel speed limits. Special Legislative Act 288 also specifies that "The harbormaster of the harbors of Greenwich, and his deputies, if any, shall, from time to time, advise the selectmen with respect to matters hereinbefore described or provided for and shall, upon request of the selectmen, confer with the latter and make such reports to the Selectmen as they shall from time to time require with respect to any matter or matters hereinbefore referred to." (Sec. 5 Special Legislative Act 288.) (See the later section on the Harbor Master.)

Sec. 307 ("Harbor regulations; areas") of the Town Charter defines the waters of the Town within which the BOS has authority to regulate the anchoring and mooring of all vessels and to make reasonable rules, regulations, and orders regarding use of the waters by all vessels. That area of authority, for the purpose of the Plan, is defined as the GHA. This section enables the BOS to designate the places to be used for mooring and anchoring, and to specify the methods and gear to be used.

With adoption of the HMC Ordinance by the BOS and RTM in 2013, the former delegated certain of their harbor management authorities to the HMC, including but not limited to the authority to regulate the anchoring and mooring of all vessels, while retaining all of its existing authorities provided by the Special Legislative Acts and the Town Charter and Town Code. The HMC Ordinance specifies that the HMC shall function subject to the authority held by the BOS and that "any and all actions by the HMC may be reviewed by or appealed to the BOS within thirty (30) days of the HMC's action being appealed." (Sec. 7A-1 of the Town Code.) In addition, the Plan and any amendments to the Plan are subject to approval by the BOS prior to approval by the State of Connecticut and adoption by the RTM.

Harbor Management Commission

The HMC is responsible for preparing, maintaining, and implementing the Plan. Among its other duties, the HMC shall regulate mooring areas and anchorage areas and review proposals affecting the real property on, in, or contiguous to the GHA that are received by other Town agencies. The HMC also may establish regulations concerning use and maintenance of the GHA; may propose fees to the RTM and BOS for mooring permits and other activities within the scope of the Plan

and shall consult with and coordinate with other agencies, commissions, and boards of the Town. In addition, the HMC reviews proposals submitted to state and federal agencies, including but not limited to, DEEP and the USACE. Pursuant to Sec. 22a-113n of the Connecticut General Statutes, a recommendation of the HMC that is consistent with and adequately supported by the Plan with respect to a proposed project shall be binding on any official of the State of Connecticut when making regulatory decisions or undertaking or sponsoring development affecting the GHA unless such official shows cause why a different action should be taken.

The HMC Ordinance specifies that the HMC shall consist of seven members and two alternate members, all of whom are to be nominated by the Board of Selectmen and appointed by the RTM. In addition, the Harbor Master and members and representatives of the following Town bodies and agencies are non-voting, ex-officio members of the HMC: the RTM, BOS, Planning and Zoning Commission, Board of Parks and Recreation, Conservation Commission, Shellfish Commission, Police Department, Department of Parks and Recreation, and Department of Public Works.

Department and Board of Parks and Recreation

The Department of Parks and Recreation supervises, maintains, regulates, and otherwise manages the recreational facilities of the Town, including the Town's boating facilities and beaches and the ferry service to the Town's island beaches. The Department promulgates and enforces regulations for the use of all recreational facilities and manages the boating facilities, including the four municipal marina facilities and the Town's boat launching area, through its Division of Marine and Facility Operations. An employee of the Department functions as the "dock master" of each Town marina facility. To reduce and avoid adverse impacts on coastal water quality, the Department has prepared and implements storm water management plans for each of the four marina facilities. The Department historically has implemented rules and regulations established by the BOS for mooring and other uses of the Town's coastal waters, including the 1985 "Rules and Regulations for Greenwich Harbor and Cos Cob Harbor" adopted by the Selectmen.

Chapter 7 (Parks and Recreation) of the Town Code governs use of all Town parks and recreation places, including the Town's boating facilities and mooring areas. It establishes the authority of the Department and the Director of Parks and Recreation to manage those facilities and areas. Article 4 of Chapter 7 addresses "vessels, boating facilities and recreation places" and establishes regulations and fees for use of the Town boating facilities.

The Department has supported active Town management of the GHA. The Board of Parks and Recreation, an advisory board to the First Selectman and Department, conducts studies and prepares proposals, recommendations, and long-range plans related to the parks and recreation system of the Town. In conjunction with the Department, the Board has prepared the Town's Parks and Recreation Master Plan including recommendations for improvements, use, and maintenance of the Town's recreational facilities, including the Town's boating facilities and beaches, and conducted several studies and issued several reports concerning the GHA, including the 2008 "Institutional Framework Study for Waterways Management," 2010 "Town of Greenwich Waterways Management Study," and 2011 "Waterways Vision for the Town of Greenwich."

In accordance with state and federal approvals, the Department in 2008 conducted Town-funded maintenance dredging to enhance the use of the Town's Grass Island marina facility, including that part of the duly permitted facility located within a portion of the federal anchorage in Greenwich Harbor. More recently, the Department served as the Town's representative for working cooperatively with the USACE to achieve maintenance dredging of the Mianus River and Greenwich Harbor federal navigation projects.



Photo 3-2: Greenwich Cove boatyard managed by the Department of Parks and Recreation

Planning and Zoning Commission

The Planning and Zoning Commission is responsible for preparing and adopting the Town's POCD; adopting, amending, and enforcing the Town's Building Zone Regulations and Subdivision Regulations; and reviewing municipal improvement projects for approval. The Commission also is responsible for conducting "coastal site plan reviews" of proposed activities within the coastal area of the Town pursuant to the Connecticut Coastal Management Act (CCMA). (See the following section on the State of Connecticut.)

The POCD, most recently amended by the Commission and approved by the RTM in 2009, establishes the Town's land-use goals and policies and contains a section on coastal water resources that emphasizes the Town's waterfront and coastal waters as significant assets to be protected. The POCD describes issues affecting the coastal waters, including issues concerning water quality and waterfront development; provides support for the Town's WB Zone; and recommends that the Town should manage its waterways through development and adoption of a Town harbor management plan, utilizing authority provided by the Connecticut General Statutes.

Goals and policies of the POCD are implemented in part through the Town's Building Zone Regulations including the WB Zone and regulation giving priority and preference to water-dependent uses. Among the stated purposes of the WB Zone, applied to four separate sections of the Town's shoreline, are to implement the goals of the CCMA and assure that limited waterfront areas are reserved for the uses they are uniquely suited for and not pre-empted by uses which can be more appropriately located elsewhere. Uses permitted in the WB Zone are water-dependent uses such as recreational and commercial boating and fishing facilities, water-based recreational uses, and dock and port facilities. Nonwater-dependent uses such as office, retail, and residential uses are not permitted in the WB Zone.

In accordance with the CCMA, the Town has established the boundaries of its coastal land area in the form of a Coastal Overlay Zone included in the Building Zone Regulations. As required by the CCMA, the Town undertakes coastal site plan reviews of all non-exempt projects or activities proposed within the coastal boundary to determine the consistency of those projects and activities with the CCMA's policies. The Town's requirements for coastal site plan review are also established in the Building Zone Regulations.

Planning and Zoning Board of Appeals

To the extent that the powers and duties of the Planning and Zoning Board of Appeals may affect the use of properties adjoining or near the GHA, those powers and duties may influence conditions in the GHA. The Board hears and decides appeals for: 1) variances from the Building Zone Regulations; 2) special exceptions for certain uses specified in the regulations; and 3) requests to override a decision of the Zoning Enforcement Officer. The Board must conduct a Coastal Site Plan Review for all such requests affecting land in the Town's coastal area.

Conservation Commission

The Conservation Commission was established by the Town in 1964 with authority provided by state statutes to promote the conservation, supervision, and regulation of natural and cultural resources, including water resources and open space lands, within the Town. The Commission serves as an advisory agency to all Town departments and agencies and is supported by professional staff with extensive expertise in environmental planning and natural resource management. The Commission recognizes Long Island Sound as the most significant natural resource in Greenwich and works to protect, maintain, and restore the ecological integrity of the Sound.

The Commission has numerous programs relating to Long Island Sound and the GHA and is the lead Town agency for a number of programs to protect and preserve critical natural and cultural resources. Key activities relating to fisheries, wildlife, and habitat of the Sound include operating and managing the Mianus River Fishway; monitoring and managing the Important Bird Areas at Greenwich Point and Great Captain's Island; conducting the horseshoe crab survey at Greenwich Point; coordinating the purple martin restoration program; managing invasive species at the Town's coastal parks; and conducting research in coordination with state and federal agencies and often in coordination with the Shellfish Commission to supplement Town inventories. Cultural resource work includes overseeing archaeological work on Town properties, preserving and restoring historic structures and landscapes, and reviewing land-use applications for compliance with cultural resource protection goals.

The Commission is part of a Town-wide team working to protect and enhance the quality of coastal and inland water resources. Conservation staff routinely review applications for compliance with requirements for erosion and sedimentation control, best management practices for storm water management, and other water quality considerations. Included are proposals for docks, piers, mooring placement, dredging, and development projects that may come before the Planning and Zoning Commission, other agencies of the Town, DEEP, and federal agencies. The Commission was the lead Town agency for development of the Byram River and Mianus River watershed management plans and coordinates implementation of those plans with the Inland Wetlands and Watercourses Agency and other Town departments.

Recognizing that protection of Long Island Sound requires strong partners, the Commission serves as a liaison to numerous governmental and private organizations. Commission members and/or staff serve on the Long Island Sound Assembly board and on the Connecticut Council for Soil and Water Conservation. The Commission also has an extensive education and outreach program with a focus on Long Island Sound that targets all ages and diverse audiences and often works in concert with partners such as the Bruce Museum Seaside Center.

The Commission has been at the forefront of Town efforts on climate change adaptation and natural hazard mitigation. Work includes Geographic Information System (GIS) mapping to identify potential impacts of sea level rise and various storm scenarios; dune restoration work; and assisting homeowners plan for home elevations in coastal flood areas. Planning efforts include keeping the Hazard Mitigation Plan current, vulnerability studies for Town infrastructure, evaluating new mitigation strategies and technologies such as living shorelines, and coordinating with the U.S. Geological Survey on Town-supported tidal and river gages. Commission staff serves in the Emergency Operations Center providing GIS and other support during periods of coastal and riverine flooding.

Inland Wetlands and Watercourses Agency

The Inland Wetlands and Watercourses Agency carries out specific provisions of the state's wetlands protection statutes and administers the Town's Inland Wetlands and Watercourses Regulations to protect the Town's inland wetlands and watercourses. The Agency reviews applications for development and other activities that would affect those wetlands and watercourses, and may grant, deny, or place conditions on permits for a regulated activity. The Agency oversees compliance with permit conditions and pursues enforcement actions against unauthorized activities.

The Agency has a significant influence on land-use in the watersheds draining into the GHA. Through its regulatory decisions affecting inland wetlands and watercourses in those watersheds, the Agency can influence the maintenance and improvement of water quality in the GHA. The Agency has adopted guidelines for regulation of docks in the watercourses subject to its jurisdiction outside the GHA, including the Byram River and upstream sections of the Mianus River.

Shellfish Commission

The Shellfish Commission is appointed by the First Selectman and has principal authority for the Town's significant shellfish resources. The Commission's mandate is to manage, protect, propagate, and conserve the shellfish beds subject to its jurisdiction. The Commission, whose area of

jurisdiction is generally coterminous with the GHA, prepares a Town Shellfish Management Plan and promotes enhancement of shellfish production and harvest for both recreational and commercial purposes in Town waters as well as preservation and restoration of shellfish habitat and water quality.

Under the direction of the Department of Agriculture's Bureau of Aquaculture, the Commission performs regular monthly water sampling to ensure Greenwich waters meet the State of Connecticut's physical and chemical standards for shellfishing. This requires continuous coordination between the Commission and all commercial shellfishermen farming in Town waters.

Maintaining a working relationship with DEEP, the Commission is required to inspect the location of, and sign off on, project plans for state permits to repair, build, or place in-water structures, including docks, jetties, seawalls, revetments, moorings, and drainage structures, thereby ensuring these projects will not have a negative impact on shellfish resources.

For educational purposes, the Commission cooperates with both the National Oceanic and Atmospheric Administration and University of Connecticut on their ecosystem services programs in Greenwich waters; holds recreational shellfishing demonstrations for the general public; and sponsors talks on shellfishing by internationally recognized experts.

With authority provided by the General Statutes, the Commission issues licenses for the taking of shellfish. It sets fees for that taking; designates the quantities and sizes of the shellfish that can be harvested, the methods that may be used, and promulgates Town regulations for recreational shellfishing.

All fees collected by the Commission for the taking of shellfish must be used by the Commission for protecting and propagating shellfish under its control.

Department of Health

The Department of Health, responsible for enforcing the state Health Codes and Town ordinances concerning public health, has several water quality-related programs that directly affect the GHA. The Department monitors swimming water quality at the Town beaches weekly throughout the swimming season, and has established written policies to close beaches after certain amounts of rainfall. These policies are reviewed periodically to ensure their continued validity. The Department also assists the Shellfish Commission with the testing of Town waters for shellfishing and works with the Department of Public Works Sewer Division and Planning and Zoning Department to assess needs for expanding the sewer collection system.

Department of Public Works

The Department of Public Works is responsible for construction, development, and maintenance of the physical properties of the Town, except for the design and maintenance of school property and property under the control of the Department of Parks and Recreation. Storm water management, flood mitigation, and waste-water treatment responsibilities of the Department are particularly significant with respect to the GHA. The Department's Division of Sewers constructs, operates, maintains, and repairs all sewers, sewerage systems, and sewage disposal plants, including

the Town's Grass Island Waste-Water Treatment Plant which is operated in accordance with state and federal regulations. In addition, the Department administers the Town of Greenwich Drainage Manual providing guidelines for land development activities and storm water management.

Police Department

The Police Department has significant harbor management responsibilities for law enforcement and boating safety in the GHA. Like other municipal police departments in Connecticut, the Department has state-delegated authority to enforce state boating laws and regulations that apply in the GHA and Long Island Sound. In addition to its law enforcement authorities, the Department's Marine Operations Division provides general assistance to boaters in the GHA; responds to emergency situations, including medical emergencies and search and rescue situations, in coordination with other emergency services agencies; may conduct boating safety inspections for compliance with state boating safety requirements; and may initiate the state-established procedures for removal of abandoned vessels. Education of the boating public is also part of the mission of the Marine Operations Division which operates the Department's Marine Operations vessel. In addition, the Department's underwater Dive Team is trained in underwater search and rescue.

Police Department responsibilities affecting the GHA and waterfront also include law enforcement responsibilities at public areas along the waterfront and patrol of those areas to maintain public safety. The Department also enforces Town shellfishing regulations.

Fire Department

The Fire Department is responsible for fire protection and emergency response and management on the waterfront and in the GHA, including response to any hazardous materials spills that may affect water quality in the GHA. Fire prevention and preparedness responsibilities in and adjoining the GHA are particularly significant because of the presence of volatile fuels, wooden and fiberglass hulls, and other combustible materials associated with boats and marinas. The Town's Fire Marshall reviews the development plans of all applicants seeking zoning/building approval (including waterfront development plans) and specifies necessary measures for fire protection in accordance with the Connecticut Fire Safety Code.

Flood and Erosion Control Board

The Flood and Erosion Control Board plans, acquires, constructs, maintains, supervises, and manages flood and erosion control systems and may enter into agreements with state and federal agencies to accomplish its purposes. The Department of Public Works provides administrative and technical support to the Board.

NEIGHBORING TOWNS

Actions originating in or involving other towns can affect the GHA. Among the number of harbor management issues of common interest to the Town and the neighboring towns are issues concerning water quality, boating safety, emergency response, law enforcement, and public access to Long Island Sound and along the shoreline. As a result, and because many environmental and harbor management issues are not limited by municipal boundaries, there is a need for ongoing

coordination of harbor management initiatives with the neighboring City of Stamford to the east and Village of Port Chester to the west. Both Stamford and Port Chester have prepared municipal harbor management plans for their harbor management jurisdictions which adjoin the GHA. In addition, actions originating in other towns upstream in the Byram River and Mianus River watersheds in the State of New York may also affect the GHA.

STATE AGENCIES AND OFFICIALS

The most prominent state agencies with harbor management-related roles and responsibilities in the GHA are DEEP, the Connecticut Port Authority, and the Department of Agriculture's Bureau of Aquaculture. As discussed below, the Harbor Master, appointed by the Governor, is a state official with authorities established by state statutes. Other state agencies of interest include the Department of Motor Vehicles which administers Connecticut's boat registration law requiring all boats with motors, regardless of size, and all boats of at least 19 1/2 feet in length powered by sail alone to be registered and numbered; the Department of Economic and Community Development which may be a source of funds for remediation of formerly polluted ("brownfields") sites and provides administrative support for the Connecticut Port Authority, the Connecticut State Police which enforces state boating laws and regulations and may respond to emergencies in Long Island Sound; and the Department of Transportation whose principal authorities affecting the GHA concern storm water drainage from I-95 and Rt. 1, and responsibility for the Cos Cob Railroad Bridge crossing the Mianus River.

Department of Energy and Environmental Protection Land and Water Resources Division

DEEP's Land and Water Resources Division (LWRD) has significant responsibilities for implementing the Connecticut Harbor Management Act of 1984, and Connecticut Coastal Management Act of 1979. The LWRD, within DEEP's Bureau of Water Protection and Land Reuse, provides municipalities with technical assistance for harbor management and reviews proposed municipal harbor management plans and harbor management plan amendments to determine their consistency with the General Statutes. Pursuant to Sec. 15-1 of the General Statutes, the Commissioner of Energy and Environmental Protection (DEEP Commissioner) is responsible for oversight of the state's harbor masters; administration of this oversight is assigned to the LWRD.

The LWRD also reviews, pursuant to the Tidal Wetlands Act and Structures and Dredging Act, proposed development activities in the state's coastal waters and issues or denies permits for the following activities: placement of structures waterward of the Coastal Jurisdiction Line¹; placement of structures in tidal wetlands; filling in tidal wetlands; filling in coastal, tidal, or navigable waters; dredging for navigation and disposal of dredged material; construction and maintenance of nonfederal channels; and placement of commercial moorings. The LWRD works closely with the USACE in processing permit applications involving filling, dredging, or structures in wetlands or coastal waters.

¹ Effective October 1, 2012, DEEP's regulatory jurisdiction for proposed work in coastal waters is defined by the CJL defined in accordance with standards set forth by DEEP and determined for the state's tidal waterbodies, including the waterbodies in the GHA.

Other Divisions of DEEP

Other divisions of DEEP also have authorities and responsibilities that affect the GHA.

Boating Division: The Boating Division within the Bureau of Outdoor Recreation offers boating safety instruction and certifies boaters on completion of basic boating and personal watercraft operation courses. In addition, it is responsible for implementing the state's permitting programs for special marine events and for placement of all regulatory, special purpose, and navigational markers, including markers to delineate restricted speed zones and swimming areas. Pursuant to Sec. 15-136 of the Connecticut General Statutes, the Boating Division is responsible for reviewing local ordinances establishing regulations regarding the operation of vessels to ensure those regulations are not arbitrary, unreasonable, unnecessarily restrictive, inimical to uniformity, or inconsistent with state policy.

Environmental Conservation Police Division: Within the Bureau of Outdoor Recreation, this Division, which cooperates as necessary with local police departments, the State Police, and the U.S. Coast Guard in law enforcement and search and rescue, has responsibility for enforcing state boating laws, fish and wildlife laws, and other state laws and regulations. The Division also enforces the state laws and regulations concerning recreational and commercial fishing.

Planning and Standards Division: The Planning and Standards Division within the Bureau of Water Protection and Reuse develops the Connecticut Water Quality Standards (WQS) and applies them to all state water bodies (including the surface-waters of the GHA), monitors and assesses the state's water quality, regulates municipal discharges, and assists municipalities in upgrading municipal sewerage facilities. In addition, the division develops the state list of impaired water bodies that do not meet the CT WQS; conducts the Total Maximum Daily Load (TMDL) analysis for each impaired water body as required by the Federal Clean Water Act; and facilitates the state's watershed management program to improve and maintain water quality through watershed-based planning. The purpose of the TMDL is to set pollution reduction objectives for bringing the impaired water body into compliance with the CT WQS, and to specify the maximum amount of a pollutant that the water body can receive without exceeding the standards.

Bureau of Natural Resources: The Bureau of Natural Resources manages inland and marine fish populations for commercial and recreational fishing and is involved with restoration, management, regulation, and research concerning fish species and populations in Long Island Sound and the GHA. Anyone age 16 or older, fishing (taking or attempting to take fish or bait species) from shore or from a boat in the marine district of this state or landing marine fish or bait species in Connecticut taken from offshore waters is required to have a Marine Waters Fishing License (also known as a saltwater fishing license). This license is issued on a calendar year basis and may be purchased from the DEEP web site, some DEEP offices, and participating town clerks and retail vendors.

Bureau of Materials Management and Compliance Assistance: This Bureau enforces the state's water pollution control laws; regulates storm-water discharges from industrial and commercial activities; conducts pollution prevention, monitoring, and enforcement inspections; and provides emergency response for oil and chemical spill incidents and releases of hazardous materials and petroleum products.

Remediation Division: Within the Bureau of Water Protection and Land Reuse, the Remediation Division oversees the investigation and remediation of environmental contamination that can impact the quality of land, groundwater, surface water, and air, and ensures that cleanup of contaminated sites meets Connecticut's Remediation Standard Regulations to protect human health and the environment.

Connecticut Port Authority

Effective July 1, 2015, the Connecticut General Assembly enacted a law establishing a quasi-public agency known as the Connecticut Port Authority. The law transferred, effective July 1, 2016, the maritime-related authorities and responsibilities formerly held by the Commissioner of Transportation and Department of Transportation to the Authority.

Among its responsibilities, the Authority is to: coordinate the development of Connecticut's ports and harbors; pursue federal and state funds for dredging and other infrastructure improvements to increase cargo movement through the ports and maintain navigability of all ports and harbors; work with the Department of Economic and Community Development and other state, local and private entities to maximize the economic potential of the ports and harbors; support and enhance the overall development of the state's maritime commerce and industries; coordinate the state's maritime policy activities; and serve as the Governor's principal maritime policy.

In addition, any harbor management plan or harbor management plan amendments proposed by a municipality must be submitted for approval to the Authority (approval by the Commissioner of Energy and Environmental Protection is also required) before they can be adopted by the municipality.

The CPA also assumed the previously held responsibility of the Connecticut Department of Transportation to act as the state's proponent or coordinator for dredging projects, including federal maintenance dredging projects undertaken by the USACE to maintain maritime commerce and the viability of water-dependent facilities and activities. In this regard, the CPA is responsible for administration of the State Grant in Aid for Harbor Improvements program through which state-bonded funds in the amount of two million dollars and one million dollars were provided in 2013 and 2015, respectively, to support the USACE dredging project for the Mianus River Federal Navigation Project completed in January 2017.

Bureau of Aquaculture



Photo 3-3: A federal navigation channel serves water-dependent facilities in the Mianus River.

The Department of Agriculture's Bureau of Aquaculture has an important role for managing shellfish resources in the GHA, particularly with respect to evaluating and classifying Town waters for shellfishing, licensing shellfishing, and generally working in coordination with the Greenwich Shellfish Commission and other agencies to protect and enhance shellfish resources.

To ensure compliance with the National Shellfish Sanitation Program of the U.S. Food and Drug Administration, the Bureau tests water quality in the GHA to determine if the water is suitable for shellfish harvesting. Following evaluation of water quality, the Bureau classifies coastal waters, shores, and tidal flats for the taking of shellfish. The basic classifications are "Approved," "Conditionally Approved," "Restricted," "Conditionally Restricted," and "Prohibited."

The Bureau works in an advisory capacity to local shellfish commissions and DEEP. To identify potential impacts of proposed work in the state's marine and tidal waters on shellfish habitat and the shellfish industry, the Bureau reviews permit applica-

tions submitted to the LWRD for dredging, filling, and placement of in-water structures, and may comment on those applications. Also, any shellfish management plan prepared by a municipality's shellfish commission must be submitted by that commission to the Commissioner of Agriculture for review and comment.

In addition, the Bureau has authority for granting or denying permits for aquaculture activities, including activities involving placement of racks, cages, or bags, as well as buoys marking such structures which must be placed in leased or designated shellfish areas.

State of Connecticut Harbor Master

The Harbor Master is a state officer appointed by the Governor of Connecticut for a three-year term, subject to the direction and control of the Commissioner of Energy and Environmental Protection. The Harbor Master has certain state-established authorities affecting the GHA.

Under Sec. 15- 1 of the Connecticut General Statutes, harbor masters are responsible for the general care and supervision of the harbors and navigable waterways over which they have jurisdiction, and are responsible to the DEEP Commissioner for the safe and efficient operation of such harbors and waterways. Among their powers and duties, harbor masters are empowered to enforce the provisions of the General Statutes concerning removal of abandoned and derelict vessels, including Sec. 15- 11a and Sec. 15-140c.

Sec. 15- 154 of the General Statutes empowers harbor masters to enforce state boating laws within their jurisdiction, except that harbor masters who are not certified law enforcement officers may not enforce the ‘boating under the influence’ laws. Since no police training is provided to Connecticut harbor masters, the Connecticut Department of Transportation advised harbor masters who have not been certified as law enforcement officers to report violations of law to the local police department or other law enforcement authorities.

Sec. 15- 1 of the General Statutes requires any harbor master to exercise his or her duties in a manner consistent with any harbor management plan for a harbor over which he or she has jurisdiction. This section also requires that the harbor master for any municipality with a state-approved and locally adopted harbor management plan shall be appointed by the Governor from a list of not less than three candidates provided by the municipality’s harbor management commission. Sec. 22a-113k of the General Statutes specifies that the harbor master or deputy harbor master for any municipality with a duly established harbor management commission shall be a nonvoting, ex-officio member of that commission.

In addition to the Harbor Master’s authorities and responsibilities specified in the General Statutes, Special Legislative Act 288 concerning “regulation of the mooring, anchoring, and speed of boats and vessels in the harbors of Greenwich” imposes specific responsibilities upon the Harbor Master. The Act specifies that “The harbormaster of the harbors of Greenwich, and his deputies, if any, shall, from time to time, advise the selectmen with respect to matters hereinbefore described or provided for and shall, upon request of the selectmen, confer with the latter and make such reports to the Selectmen as they shall from time to time require with respect to any matter or matters hereinbefore referred to.” (Sec. 5 Special Legislative Act 288.) (See the earlier section on the BOS.)

FEDERAL AGENCIES

Principal federal agencies with responsibilities and authorities pertaining to the GHA include the USACE, U.S. Coast Guard, and U.S. Environmental Protection Agency. Several other federal agencies also have roles and responsibilities.

U.S. Army Corps of Engineers

The Connecticut Harbor Management Act requires that any harbor management plan proposed by a municipality must be submitted to the USACE for review, comments, and recommendations before the plan can be approved and adopted.

The GHA is within the jurisdiction of the New England District of the USACE which is responsible for: 1) implementing the federal regulatory programs that regulate all proposed projects for dredging and the placement of such structures as docks, floats, piers, pilings, bulkheads, and commercial moorings waterward of the MHW line (the jurisdictional line for the state regulatory programs conducted by DEEP is the CJL); and 2) maintaining the Cos Cob Harbor and Greenwich Harbor Federal Navigation Projects. Responsibility for maintaining the Port Chester Harbor Federal Navigation Project rests with the USACE's New York District which is also responsible for implementing the federal regulatory programs that regulate all proposed projects waterward of MHW on the Port Chester side of the Byram River.

Regarding activities subject to the USACE's regulatory programs, the USACE may issue individual permits and general permits. Typically, an individual permit must be obtained from the USACE for most activities that involve: 1) any filling in wetlands and navigable water; 2) placement of structures in navigable water; and 3) dredging and disposal of dredged material. A general permit is an authorization issued for categories of activities that are judged to be substantially similar in nature and to cause only 'minimal individual and cumulative adverse environmental impacts.' In 2016, the USACE is implementing a Programmatic General Permit (PGP) developed jointly with DEEP that applies throughout the State of Connecticut, including the GHA. The PGP eliminates the need for an individual USACE permit for: 1) work or structures of minimal impact in navigable water; and 2) minimal impact discharges of dredged or fill material into waters of the United States. A state permit from DEEP is still needed, and projects with more than minimal impacts continue to require an individual permit from the USACE.

Docks, piers, pilings, bulkheads, and "commercial" boat moorings as defined by the USACE are all structures in navigable water that require authorization from the USACE. While the USACE has regulatory authority over "individual-private" moorings placed for private use, Connecticut harbor masters have approval authority for these moorings and, pursuant to the PGP, no application to the USACE is required.

U.S. Coast Guard

The GHA and all of Long Island Sound are within the jurisdiction of the First Coast Guard District South headquartered in Boston. Coast Guard Sector Long Island Sound headquartered in New Haven is responsible for carrying out the different Coast Guard functions in the Sound. Harbor management-related responsibilities of the Coast Guard in the GHA and Long Island Sound include: placement and maintenance of aids to navigation; search and rescue; response to oil and hazardous materials spills; Homeland Security; enforcement of federal boating laws, regulations, and rules; control of water-based events; education for boating and navigation safety; and designation of Special Anchorage Areas.

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency is responsible for a number of programs for protecting and improving water quality pursuant to the Federal Clean Water Act (CWA). In Connecticut, those programs are carried out in coordination with DEEP. For example, the CWA requires that Connecticut, along with all other states, must adopt water quality standards and assess surface waters to evaluate compliance with those standards; publish a list of impaired water bodies that do not meet the standards; and prepare a TMDL analysis for each impaired water body.

The Agency establishes standards for discharge of municipal and industrial wastewater; provides grants for construction of municipal sewerage systems; and administers the National Pollutant Discharge Elimination System (NPDES). In Connecticut, responsibilities for administration and enforcement of the NPDES have been delegated to DEEP. Following action taken by the Agency and State of Connecticut in 2007, all of Connecticut's coastal waters, including the GHA, are now part of a state-designated no discharge area, making it illegal for boaters to discharge sewage from their vessels anywhere in the state's portion of Long Island Sound or its tributaries. The Agency also reviews applications submitted to the USACE for dredging and filling in navigable waters; provides technical and funding support for watershed management projects to reduce pollution, including the Byram River Watershed Management Plan and Mianus River Watershed-Based Plan; and is responsible for designating any dredged material disposal sites that may be used in Long Island Sound.

Pursuant to conditions included in the Agency's designation of the existing dredged material disposal sites in the Sound, including the Western Long Island Sound site to be used for maintenance of the Mianus River federal navigation project, the Agency has worked with the USACE to complete in February 2016 a Dredged Material Management Plan for the Sound. That plan addresses use of open water dredged material disposal sites and opportunities for beneficial use of dredged material as alternatives to open water disposal.

Other Federal Agencies

Other Federal agencies also have roles and responsibilities affecting the GHA. The U.S. Fish and Wildlife Service provides advice and comments to the USACE regarding the potential impacts that proposed activities requiring a USACE permit may have on fish and wildlife resources. The Service also manages the Calf Island Unit of the Stewart B. McKinney National Wildlife refuge in Byram Harbor in the GHA.

The Federal Emergency Management Agency is responsible for conducting studies and publishing maps to determine flood vulnerability and for providing flood insurance in communities such as Greenwich that participate in the National Flood Insurance Program.

Within the Department of Commerce, the Food and Drug Administration regulates the interstate movement and sale of shellfish through the provisions of the National Shellfish Sanitation Program. Also within the Department of Commerce, the National Oceanic and Atmospheric Administration's National Ocean Service prepares navigation charts, conducts bathymetric surveys, and determines changes in sea level. In addition, NOAA's Office for Coastal Management administers the federal Coastal Zone Management Program which authorizes and funds Connecticut's Coastal Area Management Program.

THE GENERAL PUBLIC

The general public has important rights to use the waters of the GHA and Long Island Sound for navigation, recreation, and other purposes in accordance with the Public Trust Doctrine—the body of law pertaining to waters subject to the ebb and flood of the tide as well as navigable freshwaters. Under the Public Trust Doctrine, all tidewaters, navigable freshwaters, submerged lands beneath those waters, and the plant and animal life inhabiting those waters are held in trust by the State of Connecticut for the benefit of the general public.

In Connecticut, court decisions have affirmed the Public Trust in navigable waters and define the Public Trust area as the area waterward of the MHW line. Private ownership of upland areas adjoining the Public Trust area, including ownership by a municipality or any governmental agency, may not extend past the MHW line.

Rights of the general public for use of navigable waters, including the waters of the GHA, are generally classified under three major headings: 1) transportation and navigation; 2) recreational activities; and 3) commercial and consumer use of “sea products” (fishing, including shellfishing).

Use of public waters for navigation is the central and essential public right and generally takes precedence over other rights. The public has the right to pass and repass on navigable waters without interference or obstruction. Where an obstruction does occur, it constitutes a public nuisance. The right of free navigation is subject to lawfully enacted restrictions (concerning the operation of vessels in the interest of public safety, for example) and includes the right to anchor.

To the extent that members of the public can gain access to navigable waters without trespassing on the adjoining uplands of littoral or riparian owners they may use navigable waters for recreational purposes, including boating, swimming, and related activities.

Where title to the land adjoining navigable waters is in private ownership, the property owner may deny access across his or her land to the Public Trust area.

WATERFRONT PROPERTY OWNERS

Certain rights—referred to as riparian or littoral rights²—are inherent in the ownership of lands bordering navigable water. One of the most important of these rights is the right of access to navigable water, a right that applies whether the affected lands are utilized for residential, commercial, or public purposes. The littoral right of access to a navigable water course is distinct from the right of the general public to use that water course.

Connecticut courts have held that the owner of upland property adjacent to navigable water has certain exclusive yet qualified rights and privileges in the adjoining submerged land and navigable waters, including the exclusive right to build docks and piers from the upland to reach deep water (often referred to as “wharfing out”). These structures, however, must not obstruct the paramount right of navigation and must be acceptable under applicable regulatory statutes, including the statutes that protect wetlands and other natural resources. In other words, the exercise of the littoral right must not interfere with the rights of the state and general public and with the federal interest in navigation. To the extent that state and federal activity and regulation is necessary to secure the benefits of public waters for the general public, the individual littoral right is generally described as subservient and inferior.

A waterfront property owner cannot exclude the general public from lawful uses of the Public Trust area adjoining the owner’s property. Also, all littoral rights must be exercised with due regard for the rights of other littoral owners. The waterfront property owner cannot wharf out from shore, for example, in a manner that encroaches on the littoral area of an abutting waterfront property owner.

PRIVATE ORGANIZATIONS

Several private groups and nongovernmental organizations also have significant interests concerning use of the GHA and protection of the GHA’s environmental quality. These include neighborhood associations concerned with the quality of life in the Town’s coastal area neighborhoods, water-dependent businesses, and private clubs providing access to the GHA. Historically, several yacht clubs have participated in the Town’s management of moorings in the GHA. The Greenwich Point Conservancy and the Friends of Greenwich Point provide assistance to the Town for management of Greenwich Point Park.

Educational organizations and environmental groups also have interests and programs concerning the GHA and the Town’s waterfront. Environmental and educational organizations such as Sound-Waters, Save the Sound, Audubon Connecticut, and Audubon Greenwich, for example, actively promote conservation of the GHA’s coastal resources. The Greenwich Land Trust owns Shell

² With regard to water rights law, water rights arise when property either abuts or contains water. If the water in question is flowing (e.g., river or stream) the rights are said to be riparian. If the property is subject to the ebb and flood of the tide, or is located on a lakeshore, the rights are said to be littoral rights. Despite these distinctions, the terms “riparian” and “littoral” are commonly used interchangeably. The term littoral rights is herein used to describe the rights of the owners of property adjoining the GHA.

Island in Byram Harbor and manages the island for conservation purposes. Other interested parties are the Byram Watershed Coalition and Mianus River Watershed Council pursuing implementation of the Byram River Watershed Management Plan and Mianus River Watershed-Based Plan, respectively.

Another involved private organization is the Coast Guard Auxiliary, a volunteer organization that assists the U.S. Coast Guard with search and rescue efforts and with education for boating safety in the GHA and vicinity.



Photo 3-4: Riverside Yacht Club on Cos Cob Harbor and the Mianus River

Chapter Four:

Priority Issues

This chapter summarizes harbor management issues concerning use and conservation of the GHA. These issues, identified and reviewed by the HMC in the course of preparing the Plan, are based on concerns expressed by citizens and agencies participating in the harbor management planning process.



PRIORITY ISSUES

1. MUNICIPAL AUTHORITY:

Improved procedures are needed to effectively apply the full range of municipal authority for managing the GHA, including authority of the BOS pursuant to Special Legislative Acts and the harbor management authority provided by the General Statutes.

Unlike most other Connecticut towns, Greenwich derives authority for managing its coastal waters through Special Legislative Acts as well as the General Statutes. Described in Chapter Three, some authority available to the Town through the Harbor Management Act is not provided by the Special Legislative Acts, and vice versa. The HMC recognizes the need for special procedures to ensure that these authorities are applied in a way that: 1) maintains the most effective Town role for guiding safe and beneficial use and conservation of the GHA; and 2) avoids confusion and conflicts with respect to the different harbor management authorities.

2. MAINTENANCE DREDGING:

Regular maintenance dredging of the Mianus River, Greenwich Harbor, and Port Chester Harbor (Byram River) federal navigation projects is necessary to maintain safe and efficient navigation, long-term viability of water-dependent facilities, and enjoyable public access to Long Island Sound.

Described in Chapter Two, federal navigation projects authorized by the U.S. Congress and maintained by the USACE have been established in Cos Cob Harbor, Greenwich Harbor, and the Byram River/Port Chester Harbor. Vessels using the navigation projects' channels and anchorage basins require adequate water depths and space to navigate safely. The harbors are subject to naturally occurring siltation and, as a result, maintenance dredging of the channels and anchorage basins is needed from time to time.

The current regulatory and funding process to achieve maintenance dredging of federal navigation projects in Connecticut ports and harbors is lengthy and complex, involves a number of state and federal agencies, and generally takes years to complete. As a result, needed maintenance dredging projects are often delayed. At the Town's request and with funding from the State of Connecticut and USACE, the USACE conducted successful maintenance dredging of the Mianus River Federal Navigation Project in Cos Cob Harbor during the 2016-17 dredging season. Planning for maintenance dredging of Greenwich Harbor, including development of a plan for disposal of dredged sediment unsuitable for open water disposal, is a harbor management priority.

3. BOAT MOORINGS:

A new and comprehensive Town program is needed for fair and equitable management of all boat mooring locations throughout the GHA.

In 2016, the Harbor Master reported a total of 455 individual-private mooring locations in the GHA and 350 mooring locations managed by private clubs. The HMC, other agencies, and the boating public recognize that mooring locations in the GHA require effective oversight to ensure that available space is used safely; that mooring locations are managed in a fair and equitable manner; and that coastal resources are not adversely affected by mooring placement. Effective oversight through a Town mooring program requires ongoing coordination between the Town and Harbor Master. The need for continued improvement of that coordination is recognized by the HMC, along with the need for new and effective Town regulations for managing mooring locations.

4. FUNDS FOR HARBOR MANAGEMENT:

An effective procedure is needed for allocating funds, including mooring permit fees, for improvement of the GHA for the public and for expenses for personnel and equipment directly related to implementation of the Plan.

With authority provided by the Connecticut General Statutes and Chapter 7A of the Greenwich Code of Ordinances, the HMC may propose a fee schedule—for approval by the BOS and RTM—for a permit for a mooring or any other activity within the scope of the Plan. Any such fees collected must be deposited into the Greenwich Harbor Management Fund and used solely for maintenance and improvement of the GHA and necessary expenses of the HMC and Harbor Master. That fund may be used to implement many of the provisions of the Plan, including administrative provisions and capital projects. The HMC must establish a fair and equitable procedure for allocating mooring permit fees and other fees collected pursuant to the Plan.

5. HUMAN-POWERED VESSELS:

Conflicts involving human-powered vessel operations such as rowing, kayaking, and canoeing arise from time to time and must be addressed in order to maintain safe and beneficial use of the GHA.

Human-powered vessel operations in the GHA, including organized rowing programs, have increased in recent years. Such operations contribute significantly to the vitality of the GHA but have the potential for conflicts with motorized and wind-powered vessels in competition for navigable water space in the GHA. Congestion in the Mianus River federal channel in Cos Cob Harbor is a notable example. Accordingly, ongoing coordination is needed among the HMC, Greenwich Police Department, DEEP Boating Division, Harbor Master, Town land use authorities, the boating public, and waterfront facility operators to: 1) work collaboratively on ways to support human-powered vessel operations in harmony with other users; 2) enforce effectively all applicable boating laws and regulations; 3) increase public awareness of these laws and regulations; and

4) consider the carrying capacity of the GHA's navigable waterways when making land use decisions affecting the GHA.

6. DOCK MANAGEMENT:

Additional Town guidelines are needed to avoid environmental impacts and other potentially adverse effects of docks and piers, while maintaining property owners' rights for reasonable access to navigable water and protecting the public's rights and interests and the traditional character of the shoreline.

Waterfront property owners have the littoral right of reasonable access to navigable water, often exercised through construction of in-water structures such as docks and piers. Proposals by water-dependent facility operators and individual land-owners to construct or extend such structures in the GHA has raised planning issues regarding: 1) the potential environmental impacts of those structures (including impacts on wetlands and intertidal flats as well as visual impacts); 2) the possible effect of those structures on public uses of Public Trust waters; 3) the appropriate size and length to which docks and piers should be constructed or extended; and 4) the extent to which the Town can and should control or limit such structures. The HMC must address these concerns when reviewing proposals for docks and piers in the GHA and providing recommendations to the state and federal regulatory agencies (DEEP and the USACE) responsible for permitting in-water structures. When considering the potential impacts of docks and piers, the difficulties in pre-determining the appropriate size and scale of such structures in the absence of a specific proposal is recognized by the HMC. Notwithstanding, DEEP has advised the HMC that because state policies regarding visual quality, views and vistas, and aesthetic impacts are imprecise and undefined, they have rarely been determining factors in DEEP's coastal regulatory decisions absent specific harbor management plan criteria or standards.

7. WATER-DEPENDENT USES:

Pressure for redevelopment of waterfront sites, especially in the Town's WB Zone, may require amendment of waterfront zoning regulations to help ensure continuation of some water-dependent land-uses, including recreational boating facilities and services.

The Town, through policies established in the POCD and the requirements of the WB Zone, has promoted and protected water-dependent land uses defined in the POCD and Connecticut Coastal Management Act, including recreational boating facilities and services. The Planning and Zoning Commission, HMC, and other Town agencies recognize that economic and regulatory conditions may influence the future viability of water-dependent uses as the principal uses of waterfront sites, thereby diminishing the availability of boating support facilities, including needed boat storage facilities. Currently, in 2016, the Planning and Zoning Commission is evaluating the WB Zone, and modification of some zoning requirements may be appropriate to ensure continuation of viable, water-dependent land-uses consistent with the Plan, POCD, and CCMA.

8. REGULATORY REVIEW:

Sections of the Town Code, rules, and regulations pertaining to the GHA, including sections attached hereto as Appendices F, G, and H, are outdated and require amendment to implement the Plan and achieve consistency with current laws and regulations.

The HMC recognizes that as implementation of the Plan proceeds, consideration must be given to the need for new or modified Town ordinances, rules, and regulations for boating and boating safety.

Chapter Five:

Harbor Management Policies

This chapter sets forth the harbor management policies of the Town for guiding the beneficial use and conservation of the GHA. These provisions of the Plan complement, and are consistent with, the Town's conservation and development provisions set forth in the POCD.

The policies are not intended to provide specific responses to harbor management issues affecting the GHA. Instead, along with the Town's harbor management goals presented in Chapter One, the harbor management policies establish a guiding framework for case-by-case decisions by the HMC and other Town agencies with programs or authorities that directly or indirectly affect the GHA. In addition, the goals and policies should be considered by state agencies making decisions concerning the GHA.

The policies are grouped into the following seven categories.

- 1) Public Health, Safety, and Welfare Policies
- 2) Navigation and Water-Use Policies
- 3) Coastal Resources and Water Quality Policies
- 4) Recreational Boating Policies
- 5) Waterfront Land-Use and Development Policies
- 6) Water and Waterfront Access Policies
- 7) Harbor Administration Policies



1.0 PUBLIC HEALTH, SAFETY, AND WELFARE

Maintaining boating safety in the GHA and a safe environment for those who enjoy waterfront parks and other public areas requires ongoing attention. The capacity of the GHA for safe boating and other water uses is not unlimited, and the potential for conflicts exists among the different types and sizes of vessels operating in the GHA. A wide range of emergency situations are possible in the GHA and on the Town's waterfront, including potential situations involving vessels in distress, personal injuries, fuel spill emergencies, fires, coastal flooding, and Homeland Security issues. Abandoned or derelict vessels or structures, including docks and moorings, can create an obstruction or hazard to navigation, detract from the scenic quality of the GHA, and cause environmental damages. In addition, flooding and shoreline erosion are natural, ongoing processes that will continue to affect water and waterfront use and development. Effective planning, preparedness, response, and recovery initiatives are essential to enhance the Town's ability to deal effectively with coastal hazards.

- 1.1 **Boating Laws and Public Safety Regulations:** Capital and operating budget requirements for necessary and effective Town enforcement of boating laws, ordinances, and public safety regulations by the Greenwich Police Department should be supported.
- 1.2 **Vessel Speed and Wake:** Town regulations concerning restricted speed zones within the GHA may be established and/or amended by Town ordinance, as necessary, in accordance with the Connecticut General Statutes and upon recommendations by the HMC and Greenwich Police Department, acting in consultation with the Harbor Master. Effective enforcement of five statute miles per hour restricted speed zones established in the Town Code is supported.
- 1.3 **Emergency Planning and Response:**
 - 1.3.1 Necessary personnel and facilities for effective response to emergency situations on, in, or contiguous to the GHA by responsible Town, state, and federal agencies should be maintained and, to the extent necessary and feasible, enhanced.
 - 1.3.2 Capital and operating budget requirements for necessary and effective provision of emergency services and other assistance to boaters and other users of the GHA and waterfront by the Greenwich Police Department and Greenwich Fire Department should be supported.
 - 1.3.3 The Town's emergency operations plan should address the full range of natural and man-made emergency situations and responses possible in the GHA. Effective implementation of the emergency operations plan should be supported.
 - 1.3.4 All water-dependent facilities should develop and maintain emergency procedures for effectively securing and protecting vessels and other property from the impacts of storms, flooding, and erosion, and for responding to emergencies involving the spillage of fuel or other materials in the GHA.

1.4 Capacity of the GHA for Safe Boating and Other Water Uses:

- 1.4.1 Town agency decisions concerning use of the GHA for boating and other uses should consider that the capacity of the navigable waters of the GHA to accommodate such uses and their supporting facilities in a safe and environmentally sound manner is limited. New or expanded uses and facilities expected to exceed the capacity of the GHA should be avoided. (See Coastal Resources and Water Quality Policies.)
- 1.4.2 It should be the responsibility of applicants proposing projects that would affect the GHA to provide the information necessary for the HMC and other Town agencies, including, but not limited to, the Planning and Zoning, Conservation, and Shellfish commissions, to assess the capacity of the GHA and waterfront to accommodate the proposed projects in a safe and environmentally sound manner. The information required should be reasonable in scope and commensurate with the size, type, scale, and potential positive and negative impacts of the proposal.

1.5 Avoiding Water Use Conflicts and Congestion:

- 1.5.1 Recreational, commercial, and other uses of the GHA should be planned, managed, and regulated as necessary to avoid congestion and conflicts among vessels operating in the GHA, including but not limited to, conflicts among wind-powered, motorized, and hand-powered vessels.
- 1.5.2 All activities and events involving special purpose craft such as rowing shells, sail boards, kayaks, and other vessels should be planned and undertaken in a manner to reduce or avoid potential conflicts and negative impacts affecting navigation.

1.6 Coastal Resiliency:

- 1.6.1 All construction in flood and erosion hazard zones designated for flood insurance purposes contiguous to the GHA should conform to floodplain regulations and construction standards intended to reduce the vulnerability of at-risk development.
- 1.6.2 Living shoreline¹ and nonstructural² alternatives to the use of seawalls, bulkheads, revetments, breakwaters, jetties, groins, and other structural measures for protecting existing development from flooding and erosion should be considered by the

¹ Living shoreline shore protection techniques, defined in the CCMA, utilize a variety of structural and organic materials such as tidal wetland plants, submerged aquatic vegetation, coir fiber logs, sand fill and stone for the primary purpose of maintaining or restoring tidal wetlands, beaches, dunes, or intertidal flats what at the same time providing shoreline protection.

² Nonstructural shore protection measures include planning, public policy, and regulatory measures intended to discourage or avoid dangerous, uneconomical, or unwise use of floodplains and erosion-prone areas, as distinguished from more traditional structural methods such as revetments, seawalls, groins, and breakwaters used to decrease shoreline erosion, wave damage, and flooding.

owners/operators of waterfront sites and facilities and encouraged where feasible. Those proposing to use structural measures to protect existing development must demonstrate compliance with the applicable policies of the CCMA, including the policies that promote living shorelines and other natural and nonstructural solutions to flood and erosion problems. Where feasible, removal of deteriorated shoreline structures no longer needed to protect existing development is encouraged, along with restoration of natural shoreline features.

- 1.6.3. To achieve consistency with the CCMA, traditional structural solutions to flood and erosion problems may be permitted when necessary and unavoidable for the protection of infrastructural facilities, water-dependent uses, commercial and residential structures constructed as of January 1, 1995, and other structures and uses specified in the CCMA, and where there is no feasible, less environmentally damaging alternative, and where all reasonable mitigation measures and techniques defined in the CCMA have been provided to minimize adverse environmental impacts.
- 1.6.4. Where consistent with the CCMA's coastal management policies concerning flood and erosion control measures, the timely repair and maintenance of properly authorized bulkheads and other shore protection structures should be encouraged and supported as needed to protect existing water-dependent uses, commercial and residential structures (constructed as of January 1, 1995), infrastructure, and other development specified in the CCMA from flooding and erosion.
- 1.6.5. Potential sea level rise should be considered in planning, design, and cost determinations for infrastructure such as, but not limited to, municipal and private roads, water and sewer systems, and electric utilities.

1.7 **Removal of Abandoned and Derelict Vessels and Structures:**

- 1.7.1 No building, structure, or floating facility on, in, or contiguous to the GHA, including but not limited to any bulkhead, seawall, or marine facility, should be allowed to deteriorate to the point that a hazard or obstruction to navigation or condition adversely affecting public safety may result.
- 1.7.2 In accordance with State of Connecticut boating statutes and regulations, all abandoned vessels as defined in the General Statutes shall be removed from the GHA according to the procedures initiated by the Police Department, Harbor Master, or other party of standing and specified in pertinent sections of the General Statutes, including Sec.15-140c as amended by Public Act 14-57 effective January 1, 2015.
- 1.7.3 In accordance with State of Connecticut boating statutes and regulations, all derelict vessels as defined in the General Statutes shall be removed from the GHA according to the procedures initiated by the Harbor Master or other duly authorized representative of the Town and specified in pertinent sections of the General Statutes, including Sec.15-11a and any amendments.

- 1.7.4 Any person with a grievance regarding a decision or action of the Harbor Master to remove a vessel from the GHA is encouraged to attempt to resolve that grievance with the HMC prior to exercising his or her rights pursuant to Sec. 15-9(c) of the General Statutes. Furthermore, the First Selectman, acting as the chief executive officer of the Town, may appoint a hearing officer to hear any grievance that may be filed concerning an action by the Harbor Master to remove a vessel from the GHA.

2.0 NAVIGATION AND WATER-USE POLICIES

Timely maintenance dredging of the federal navigation projects as well as necessary dredging of Town and commercial boating facilities require ongoing attention. Also, it is recognized that docks, piers, moorings, and other structures located too close to designated navigation channels, fairways, and anchorage basins can interfere with vessels using these navigation areas. Any unauthorized encroachments into navigable water are a significant harbor management concern as structures or other work placed or undertaken in the GHA without necessary Town, state, or federal approvals would be illegal and can damage the environment and interfere with navigation. Regular attention must also be given to federal and nonfederal aids to navigation to ensure that they are appropriate for marking the federal channels and other boating activity areas and conditions. Similarly, regular attention must be given to the maintenance and operation of bridges crossing the GHA or the tributaries draining into the GHA to avoid any adverse impacts on navigation and coastal resources.

2.1 Federal Navigation Projects:

- 2.1.1 The existing federal navigation projects in the Greenwich Harbors Area, including congressionally authorized federal channels and anchorage areas, should be retained to serve recreational and commercial vessels, provide safe and efficient navigation, and ensure the continued viability of water-dependent uses. Dredging of channels and anchorage areas should be conducted as needed to provide the navigable depths and dimensions required to maintain safe and efficient navigation and the viability of water-dependent uses.
- 2.1.2 Use of the federal navigation projects should be managed by the Town in accordance with the “open to all on equal terms” policy of the USACE.
- 2.1.3 Modification of the existing dimensions and/or positions of any of the Town’s federal navigation projects may be considered, as necessary, to meet requirements for navigation and public safety and to facilitate beneficial use and development of the GHA and waterfront consistent with the Plan, provided such modification is accomplished through federal legislation requested by the Town with input from all affected parties, including any affected waterfront property owners. Any proposed modification should be subject to approval by the HMC and BOS and be demonstrated to serve the overall public interest.

- 2.2 Nonfederal Dredging and Dredged Material Disposal:** Environmentally sound dredging of nonfederal channels, coves, anchorages, docking facilities, boating access facilities, marinas, and other areas of vessel traffic as necessary to maintain safe and efficient navigation, the viability of water-dependent facilities, and public access to the GHA, and to improve water quality and circulation, is encouraged and supported. To the extent feasible, nonfederal dredging should be coordinated with dredging of the federal navigation projects for the purpose of reducing the economic costs and potential adverse environmental impacts of dredging in the GHA, and to achieve the most efficient and effective use of available funds and other resources for maintenance dredging.
- 2.3 Aids to Navigation:** Aids to navigation in the GHA, including federal aids maintained by the U.S. Coast Guard as well as nonfederal (private) aids, and including regulatory buoys, beacons, and signs, should be placed and maintained in compliance with state and federal regulations and be appropriate for effectively marking navigation channels, fairways, anchorages, mooring areas, any navigation hazards and obstructions, restricted speed zones, and other areas and conditions affecting navigation.
- 2.4 Navigation Fairways:** Where necessary, specific water areas to be kept free of obstructions may be designated as navigation fairways by the HMC, acting in consultation with the Greenwich Police Department and Harbor Master, to ensure safe passage of recreational and commercial vessels to, from, and through the federal channels and anchorages, mooring areas, boating facilities, and other areas of vessel traffic in the GHA.
- 2.5 Set-Back Distances from Channels, Anchorages, Mooring Areas, and Fairways:**
- 2.5.1 All piers, docks, bulkheads, pilings, moorings, and other structures located waterward of the CJL³ in the GHA should be set back from the boundaries of designated channels, anchorages, mooring areas, and fairways a safe and sufficient distance to ensure that these structures, and any vessels docked or anchored at these structures, do not interfere with the safe and unimpeded passage of any vessel using the channels, anchorages, mooring areas, and fairways.
- 2.5.2 Appropriate set-back distances for proposed structures and work waterward of the CJL should be determined on a case-by-case basis by the HMC based on a review of existing conditions. When determining the distance that in-water structures should be set back from a designated channel, anchorage, mooring area, or fairway, consideration should be given to guidance provided by the USACE, DEEP, and other appropriate agencies. In the absence of compelling reasons to the contrary, set-back distances should be consistent with the USACE's guidelines. (See

³ The CJL line, marking the elevation of the highest predicted tide, defines the regulatory jurisdiction of DEEP. Proposed work and structures waterward of the CJL are subject to DEEP's coastal regulatory authorities, including authorities regulating structures, dredging, and fill.

“Guidelines for the Placement of Fixed and Floating Structures in Navigable Waters of the United States Regulated by the New England District, U.S. Army Corps of Engineers,” July 1996.)⁴

2.6 **Correcting Unauthorized Encroachments:**

- 2.6.1 No structures or any other work (including, but not limited to, docks, piers, floats, pilings, bulkheads, moorings, and dredging or filling of aquatic areas) should be placed or undertaken waterward of the CJL in the GHA without necessary Town, state, and federal authorization. Any unauthorized structures or other work in federal navigation projects or in any other areas waterward of the CJL should be considered unauthorized encroachments to be eliminated or otherwise corrected in accordance with Town, state, and federal laws, regulations, and ordinances.
- 2.6.2 Civil penalties assessed by DEEP for unauthorized work in the GHA subject to regulatory programs administered by the LWRD should be used to fund beneficial projects for environmental enhancement and other improvements in the GHA, nearby the location of the violation where feasible, to the extent consistent with state laws and policies, including but not limited to the CCMA, statutory restrictions concerning civil penalties, and DEEP’s enforcement and supplemental environmental project policies.

2.7 **Managing Fishing and Aquaculture:**

- 2.7.1 Opportunities for vessel- and shore-based recreational fishing in the GHA should be maintained and, to the extent feasible, enhanced.
- 2.7.2 Recreational and commercial fishing activities, including shellfishing, are encouraged and supported in a manner that does not unreasonably conflict with other traditional water-dependent uses and the operation of vessels in designated navigation channels, and with consideration of the sustainable capacity of fisheries resources in the GHA as determined by the appropriate resource management agencies of the State of Connecticut and the Shellfish Commission.

⁴ The Plan recognizes that, for the purpose of maintaining federal navigation projects in the GHA, the USACE’s guidelines describe the typical set-back distance from a navigation project as three times the authorized project depth. Since USACE maintenance dredging projects often specify side slopes of 3 (horizontal) to 1 (vertical), the typical set-back distance is intended to minimize the need for removal of in-water structures prior to dredging operations. The USACE’s guidelines also allow for appropriate set-back distances to be established on a case-by-case basis, giving consideration to traditional navigation patterns and the presence of existing, previously authorized structures which, in some instances, might result in a set-back distance of less than three times the authorized project depth.

- 2.7.3 Use of any commercial fishing gear as defined in Sec. 26-1(8) of the Connecticut General Statutes and regulations adopted by the Commissioner of Energy and Environmental Protection shall be in accordance with all applicable Town, state, and federal laws, regulations, and ordinances.
 - 2.7.4 It should be recognized that placement of unattended gill nets in congested or well-traveled locations may substantially interfere with orderly, safe, and efficient allocation and operation of the GHA. No unattended gill net should be set at any time in any location where the placement of that net will create a hazard to navigation or otherwise substantially interfere with orderly, safe, and efficient allocation and operation of the GHA.
 - 2.7.5 Any commercial fish harvesting structures and aquaculture activities requiring state and/or federal authorization, including but not limited to marine pound nets and aquaculture racks, cages, and bags, as well as buoys to mark the location of such structures, should be carefully designed, constructed, and maintained to avoid or reduce any significant adverse impacts on navigation and coastal resources and on the public's right to use the GHA consistent with the Public Trust Doctrine. Any proposals for such structures and activities should be reviewed for consistency with the Plan.
 - 2.7.6 Commercial shellfishing in the GHA shall be in accordance with all applicable Town, state, and federal laws, regulations, and ordinances concerning the use of: 1) private shellfishing grounds designated by the Town for exclusive private use; 2) "natural" shellfish grounds as defined by decrees of the Superior Court to be left open to the general public; and 3) state grounds where commercial shellfishing is in accordance with state-granted franchise rights or lease arrangements with the state.
 - 2.7.7 Alternative measures and technologies to mark the boundaries of private shellfishing grounds are encouraged and supported to reduce or eliminate the use of stakes and thereby avoid adverse impacts on general navigation.
- 2.8 Bridges and Dams:** All bridges and dams crossing or otherwise affecting navigable water in the GHA should be maintained and/or operated in a manner to avoid or reduce the potential for any significant adverse impacts on navigation, public safety, environmental quality, or any other beneficial uses and conditions. Any plans for bridge or dam construction, replacement, maintenance, or removal should be designed, reviewed, and implemented in a manner to avoid or minimize adverse impacts on beneficial uses and conditions in the GHA and coastal resources, and should be reviewed for consistency with the Plan.

3.0 COASTAL RESOURCES AND WATER QUALITY POLICIES

Achieving and maintaining an appropriate balance between beneficial use of the GHA and conservation of coastal resources and environmental quality in the GHA is an ongoing challenge. The environmental capacity of the GHA's coastal resources is not unlimited; and there are a number of potential adverse environmental impacts associated with in-water uses, waterfront development, and recreational use that must be avoided or otherwise mitigated if those resources and their natural values are to be sustained. One of the most basic harbor management issues concerns the need to maintain and improve surface water quality. Bacteria and other water pollutants can affect the enjoyment of boating activities, the vitality of fish and wildlife, and the health of those who come in contact with the water. Any significant pollution in the GHA, including runoff pollution generated throughout the Town's watersheds and point source pollution from the Town's sanitary sewer system and other sources, would diminish the Town's quality of life. Also, wetlands and intertidal flats in and near the GHA can be gradually diminished in quality and extent as nearby uses and development place greater stress on them. Possible loss of fish and wildlife resources, including shellfish resources, as a result of cumulative development impacts, water pollution, human disturbances, overfishing, and other conditions is a well-recognized harbor management concern.

3.1 Balancing Environmental Conservation and Beneficial Use of the GHA:

- 3.1.1 Efforts to maintain and enhance beneficial use of the Greenwich Harbors Area should be pursued in coordination with efforts to protect, enhance, and sustain environmental quality, natural resources, and ecological functions.
- 3.1.2 Use and development within the GHA or affecting real property on, in, or contiguous to the GHA should be balanced with protection of natural coastal resources and their ecological functions in the GHA, and should not cause significant adverse impacts on environmental quality, including water quality. Proposals should demonstrate that reasonable efforts have been made to minimize environmental impacts; that the benefits of the proposals outweigh the negative impacts; and that there are no reasonably feasible alternatives.

3.2 Capacity of Coastal Resources:

- 3.2.1 Town agency decisions concerning use of the GHA for boating and other uses should consider that the capacity of coastal resources in the GHA to accommodate such uses and their supporting facilities in a sustainable and environmentally sound manner is limited. It also should be recognized that cumulative impacts on environmental quality can result from individually minor but collectively significant actions taking place over a period of time. New or expanded uses and facilities expected to exceed the environmental capacity of the GHA should be avoided. (See Public Health, Safety, and Welfare Policies.)

- 3.2.2. It should be the responsibility of applicants proposing projects that would affect the GHA to provide the information necessary for the HMC and other Town agencies, including, but not limited to, the Planning and Zoning Commission, Conservation Commission, and Shellfish Commission, to assess the capacity of the GHA and waterfront to accommodate the proposed projects in a sustainable and environmentally sound manner. The information required should be reasonable in scope and commensurate with the size, type, scale, and potential positive and negative impacts of the proposal.

3.3 Surface Water Quality:

- 3.3.1 All feasible measures to protect and improve surface water quality in the GHA and achieve consistency with the Connecticut Water Quality Standards (CT WQS), including implementation of TMDL analyses and other management plans, and implementation and enforcement of applicable Town, state, and federal laws, regulations, and ordinances, are encouraged and supported, along with coordination among all agencies with water quality authorities and responsibilities.
- 3.3.2 Efforts to improve water quality in the GHA through reduction or elimination of point and nonpoint (runoff) sources of pollution, including storm water runoff from roads, bridges, parking areas, and other surfaces, as well as seepage from septic systems, are encouraged and supported.
- 3.3.3 Efforts to improve water quality in the GHA should include: maintenance, repair, and improvement of storm water collection and treatment facilities as necessary in accordance with best available technology; reduction or elimination of pollution that may be caused by boating activities; reduction of the amount of sand, debris, and other pollutants discharging into the GHA from roads, bridges, and waterfront properties, including large debris that may be carried downstream and into the GHA by tributaries of the GHA; reduction of chemical fertilizers and pesticides used for lawn maintenance; reduction of the amount of pollution generated by potential sources of bacterial contamination, including wildlife and domestic animals and seepage from any poorly functioning septic systems; and reduction or elimination of all other activities that unnecessarily introduce sediment, debris, or pollutants into the GHA.
- 3.3.4 The use of suitable best management practices (BMPs) to manage, reduce where feasible, or otherwise control and treat storm water runoff prior to discharge into the GHA should be encouraged and supported, including, but not limited to, establishment and maintenance of: buffer zones of vegetation to naturally filter polluted runoff draining into the GHA; appropriate buffer/setback distances around tidal wetlands in the GHA; low impact development strategies; public outreach and education initiatives; and other BMPs for site planning, source control, and storm water treatment identified in DEEP's Stormwater Quality Manual and Town of Greenwich Drainage Manual.

- 3.3.5 All new development generating significant storm water discharges directly or indirectly into the GHA should employ appropriate storm water treatment systems and technology to reduce the potential for nonpoint source pollution to enter the GHA. All such systems and technology should be properly maintained and operated in accordance with regularly scheduled maintenance procedures and all accumulated residue should be properly disposed of.
- 3.3.6 Feasible opportunities to improve water circulation and tidal exchange between Long Island Sound and the coves and embayments in the GHA for the purpose of improving water quality, reducing sedimentation, and restoring and/or enhancing coastal resources, including shellfish resources, should be investigated. Any proposal for improving water circulation and tidal exchange should be based on best available scientific information and sound engineering practices and prepared in consultation with the Town, state, and federal agencies with relevant authorities and interests. Any project for improving water circulation and tidal exchange in the GHA should be pursued if it is determined that the project will provide significant environmental benefits, be implemented at a reasonable cost to the Town relative to anticipated benefits, and not be substantially outweighed by any significant adverse impacts on coastal resources.
- 3.3.7 An effective, ongoing program of water quality monitoring and assessment in the GHA and upstream in the GHA's tributaries by qualified governmental agencies and/or nongovernmental organizations is encouraged and supported. Water quality monitoring and assessment should evaluate consistency with the CT WQS, identify existing and potential sources of pollution, and establish and maintain a database of information to support water quality improvement initiatives. Consistency with the CT WQS, achievement of the highest, reasonably attainable water quality classifications in the GHA should be pursued through correction or elimination of both point and nonpoint sources of pollution, including storm water runoff.
- 3.3.8 Vessel waste pump-out facilities with adequate capacity to serve the needs of all boaters in the GHA should be maintained in the GHA.

3.4 Intertidal Resources, Including Tidal Wetlands and Intertidal Flats:

- 3.4.1 The ecological values of intertidal resources, including values related to fish and wildlife habitat, nutrient productivity, water quality functions, and flood protection, should be protected.
- 3.4.2 Restoration of degraded intertidal resources should be encouraged and supported, to the extent feasible, and where such restoration will enhance the quality of natural coastal resources through improvements to water quality, scenic quality, fish and wildlife habitat, and other natural values. When considering opportunities for restoring tidal wetlands, consideration may be given to replacement of existing culverts and tidegates, including replacement of conventional tidegates with self-regulating tidegates that will provide a sufficient amount of tidal flow to support ecologically viable tidal wetlands while providing necessary flood protection.

3.5 Fisheries Resources, Including Shellfish Resources:

- 3.5.1 It is recognized that the natural features of the GHA, including its estuarine environment, tidal wetlands, extensive areas of intertidal flats, and the presence of Greenwich Point and the Greenwich Islands which shelter much of the GHA from waves generated in Long Island Sound, provide shellfish habitat of significant resource value. It is further recognized that shellfish habitat is susceptible to adverse impacts caused by the installation, presence, or use of water access structures such as docks, floats, piers, and moorings.
- 3.5.2 Science-based initiatives to protect, maintain, and enhance fisheries resources, including shellfish resources, in the GHA for recreational and commercial use and public enjoyment, consistent with Town, state, and federal laws, regulations, and ordinances, should be encouraged and supported. Efforts to protect and enhance shellfish resources in the GHA should be in accordance with any duly established Town plan for shellfish management prepared by the Shellfish Commission and implemented in coordination with the Plan.
- 3.5.3 For the purpose of these policies, shellfish resources in the GHA include populations of shellfish species and the natural areas (habitat) with characteristics for supporting one or more of those species. Shellfish habitat includes tidal waters, underwater lands, wetlands, and intertidal flats.
- 3.5.4 Proposals affecting the real property on, in, or contiguous to the GHA that would cause acute and/or cumulative adverse impacts on shellfish resources or opportunities for beneficial cultivation/harvesting of shellfish, or otherwise conflict with any duly established Town plan for shellfish management, should be avoided. Proposals that could affect shellfish resources or cultivation and/or harvesting opportunities should be carefully designed and evaluated to avoid significant adverse impacts on those resources and opportunities.

- 3.6 **Reducing Siltation:** Efforts to avoid or reduce siltation and the resulting need for dredging in the GHA should be encouraged and supported, including: regular maintenance of storm drainage catch basins; construction of additional catch basins as necessary; effective street cleaning; control of runoff from construction sites; avoidance of the disposal of leaves, branches, and other debris in the GHA and its tributaries; and reduction or elimination of all other activities that introduce sediment into the GHA. Efforts to avoid or reduce runoff of sand and other materials into the GHA from roads and bridges throughout the watersheds draining to the GHA are encouraged and supported.

4.0 RECREATIONAL BOATING

Managing boat mooring locations and ensuring the availability of boating services and facilities for resident and visiting boaters enjoying the variety of boating activities taking place in the GHA require ongoing attention. Boating activities require waterfront facilities and services, including facilities and services for berthing, repair, maintenance, and storage and well as vessel-waste pump-out services. Continued operation, maintenance, and enhancement of the Town's boating facilities, including marina facilities, is a basic harbor management consideration. Long-range planning is required to maintain existing docks, bulkheads, pilings, and other structures and provide new facilities as may be necessary.

4.1 Public Boating Facilities:

- 4.1.1 Enhancement and expansion of existing public, Town-provided boating facilities and establishment of new facilities should be encouraged and supported to provide dock space, boat slips, boat launching areas, and other facilities as well as appropriate opportunities for beneficial access to the GHA by resident and visiting boaters. Facilities provided should be consistent with demonstrated need and with the capacity of the GHA and upland areas to accommodate those facilities in a safe and environmentally sound manner.
- 4.1.2 The establishment and maintenance of small craft launching and landing areas available for public use at suitable locations on the GHA waterfront should be encouraged and supported for the purpose of accommodating small vessels such as canoes, dinghies, and kayaks that can be transported without trailers.

4.2 Private Boating Facilities:

- 4.2.1 The Town should encourage and support the continued operation of private boating and yacht clubs and commercial marinas and boatyard facilities and the establishment of new boating facilities, as needed and feasible, in appropriate locations. Any future development that may affect existing marina and/or boatyard facilities should not result in a significant reduction of currently available boating facilities and services.
- 4.2.2 The authority and policies of the CCMA, the POCD incorporating the Town's coastal area management policies, and the Greenwich Building Zoning Regulations should be applied to encourage and support the continued operation of water-dependent boat service facilities (including boat maintenance, repair, and storage facilities) and to promote the establishment of new boat service facilities in appropriate locations. (See Waterfront Land-Use and Development Policies.)
- 4.2.3 Town planning and zoning requirements should be applied as necessary to protect and promote water-dependent uses such as private boating and yacht clubs and commercial marina and boatyard facilities. (See Waterfront Land-Use and Development Policies.)

4.3 Mooring and Anchoring:

- 4.3.1 The HMC shall properly manage the location and placement of all mooring tackle in the GHA in a manner that provides for efficient, equitable, and environmentally sound distribution of individual-private and commercial moorings. All moorings shall be properly permitted by the Harbor Master, and commercial moorings additionally require appropriate permits from DEEP and the USACE.
- 4.3.2 To protect the safety of persons and property and protect environmentally sensitive resources in the GHA, all mooring tackle should meet minimum standards, including standards for inspection, established by the HMC acting in consultation with the Harbor Master.
- 4.3.3 Mooring and anchoring of vessels in the GHA should not cause an obstruction or hazard to navigation nor any significant adverse impacts on environmental quality or other public uses or purposes, and shall comply with all applicable laws and regulations for protecting coastal resources, including Sec. 26-157a (e) of the Connecticut General Statutes concerning the placement of moorings on oyster beds.
- 4.3.4 All mooring locations in federal anchorage basins shall be properly permitted by the Harbor Master and managed in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations and any duly approved agreements and orders relative to management of moorings consistent with local, state, and federal requirements. Any mooring tackle that would interfere with approved maintenance dredging of a federal anchorage basin must be removed from the anchorage by the owner of that tackle prior to commencement of dredging operations.
- 4.3.5 As may be necessary to ensure safe and efficient use of the GHA, including mooring locations within federal anchorage basins and special anchorage areas, the HMC may prepare surveyed plans with mooring area boundaries and individual mooring locations identified, utilizing the most up to date and appropriate survey and mapping technology to the extent practical. Such technology will utilize the State Plane Coordinate System of the State of Connecticut or geographic coordinates as appropriate. Preparation and implementation of such mooring area plans will not require amendment of the Harbor Management Plan.
- 4.3.6 All mooring buoys must comply with DEEP Regulations of Connecticut State Agencies concerning dimensions, layout, and color.

4.4 Human-powered Boating: Human-powered boating activities such as rowing, canoeing, and kayaking conducted in a safe and environmentally sound manner, including organized events, should be encouraged and supported in the GHA, in balance with other beneficial recreational and commercial uses, and in a manner that avoids or minimizes the risk of conflict with other vessels using the GHA, including vessels operating in any federal navigation project. Human-powered vessels should not operate in a manner that poses a hazard or significant adverse impact to navigation.

- 4.5 Sailing Classes and Small Craft Training:** Continued operation of sailing classes and small craft training programs is supported; such programs should be conducted in accordance with all applicable boating laws, regulations, and ordinances, and should not operate in federal navigation channels and any designated navigation fairway in a manner that poses a hazard or significantly adverse impact to navigation.

5.0 WATERFRONT LAND-USE AND DEVELOPMENT

Waterfront land-use and development have a significant influence on the use and condition of the GHA. The future viability of water-dependent land-uses, the effects of waterfront redevelopment, and the impacts of docks and piers constructed by waterfront property owners in accordance with their littoral rights for access to navigable water are among the principal management concerns. Redevelopment plans, including plans involving properties within the Town's Waterfront Business Zoning Districts, may have significant long-term impacts on the character of the waterfront and require careful planning and review. In addition, the environmental quality associated with the GHA can be adversely affected by deterioration and lack of maintenance of waterfront sites and facilities, including bulkheads and other shore protection structures, and the traditional character and beneficial quality of life in shorefront residential neighborhoods can be effected by water and waterfront use and development.

5.1 Waterfront Development Proposals:

- 5.1.1 All public and private development proposals affecting the GHA should be carefully planned and reviewed for consistency with the Plan and to mitigate any potentially significant adverse impacts on beneficial uses and conditions in the GHA, including impacts on existing water-dependent uses and future water-dependent development opportunities.
- 5.1.2 The HMC should serve in an advisory capacity in the development of all Town-supported development initiatives affecting the GHA waterfront.
- 5.1.3 When reviewing proposals for waterfront development, Town should apply the authority and policies of the Plan, POCD, Building Zone Regulations, and CCMA.

5.2 Water-Dependent Uses and Activities:

- 5.2.1 The Town should continue to implement (through appropriate zoning and other regulations) the coastal area management policies established in the POCD to encourage and support the development and continued operation of water-dependent land uses as defined in the Connecticut Coastal Management Act.
- 5.2.2 Access to the GHA should be promoted wherever feasible, but the Town should ensure, through appropriate zoning and other land-use provisions, that existing water-dependent uses are not replaced by nonwater-dependent uses providing only limited pedestrian and visual public access to the GHA.

5.3 **In-Water Structures:**

- 5.3.1 Construction of public and private floats, docks, piers, and other water-access structures should not have a significant adverse impact on coastal resources, including aesthetic resources which may be degraded through significant alteration of the natural features of vistas and viewpoints, opportunities for beneficial access to the GHA, traditional water uses, and the traditional character of shorefront areas. Water-access structures for private residential use should be of the minimal length needed to provide reasonable access to navigable water. For the purpose of this policy, “reasonable access to navigable water” does not necessarily mean access available at all stages of the tide. Structures of a size and mass that would require lighting where such lighting may have a negative effect on navigation or conflict with the traditional character of shorefront areas should be considered inconsistent with the Plan. In the absence of compelling reasons to the contrary, new water-access structures for private residential use should not extend farther waterward than any existing, nearby structures. In appropriate cases, especially with regard to littoral residential properties, alternatives to the construction of fixed structures to provide access to the GHA should be considered. Alternatives to be considered should include floating docks; and individual-private moorings.
- 5.3.2 When reviewing proposals for water-access structures, including floats, docks, and piers, the HMC should consider the intended use of the structures, including, but not limited to, use for private residential purposes, public water-access purposes, and marine commercial purposes. The appropriate extent to which water-access structures should extend waterward in order to provide reasonable access to the navigable waters of the GHA and maintain the viability and beneficial use of commercial water-dependent uses and public access facilities should be evaluated on a case by case basis by the HMC and appropriate state and federal regulatory agencies, including DEEP and the USACE. That evaluation should take into consideration:
- the rights of waterfront property owners, including the littoral rights of the property owner proposing a water-access structure, and the littoral rights of the owners of properties adjoining the proposed project;
 - existing conditions in the GHA such as distance from shore to navigable water;
 - the amount of time during each tidal cycle when the water-access structure will be usable for boating access to the GHA;
 - the presence of coastal resources such as intertidal flats, tidal wetlands, shellfish resources, and aesthetic resources, to the extent aesthetic resources may be defined in the Connecticut coastal management act and any implementing regulations;
 - potential changes in tidal water flow patterns that could occur and impact the health and existence of coastal resources;

- traditional character and historic use of affected neighborhoods, including traditional views of the GHA from public properties and rights-of-way nearby the site of the proposed structure, and traditional views of the shoreline from the GHA;
 - extent of potential visibility of the proposed structure, the views and viewers affected, quality of views, and the magnitude of visual impact as determined by duration, nature, scale, and other criteria;
 - existing structures in the vicinity of the proposed structure, including the risk of conflicts with nearby structures and adjoining littoral areas;
 - distance from the proposed structure to any designated navigation channels and anchorage areas; and
 - any other pertinent conditions.
- 5.3.3 Docks, floats, bulkheads, and other in-water structures should be maintained in a manner that: 1) contributes to continued safe and beneficial use of the harbor; and 2) does not detract from the utility of the affected properties for water-dependent uses.
- 5.3.4 In the absence of compelling reasons to the contrary, the construction of private floats, docks, piers, and other water-access structures by groups of homeowners or neighborhood associations for group use are encouraged and supported as a preferred alternative to the construction of single structures for use by individual owners.
- 5.3.5 To reduce potential adverse impacts on navigation resulting from the construction of new or extended in-water structures, design guidelines established by the USACE for placement of fixed and floating structures in navigable water should be considered by the HMC in its review of proposed in-water structures. In the absence of compelling reasons to the contrary, including the need to protect valuable coastal resources, new or extended in-water structures should be consistent with the USACE's guidelines. (See "Guidelines for the Placement of Fixed and Floating Structures in Navigable Waters of the United States Regulated by the New England District U.S. Army Corps of Engineers," July 1996.)
- 5.3.6 In the HMC's case-by-case review of individual proposals for docks, piers, and other water-access structures, it is the responsibility of the applicant to provide sufficient information concerning the potential impacts of the proposed structure on navigation and coastal resources.
- 5.3.7 In the future, the HMC may consider formulating more detailed standards concerning water-access structures in the GHA, including, but not limited to, dimensional standards and criteria for avoiding or otherwise mitigating adverse visual impacts, and for inclusion of those standards and criteria in the Plan.

- 5.3.8 All swim floats must comply with DEEP requirements concerning size, color, and markings.
 - 5.3.9 No dock, float, pier, or other in-water structure in the GHA may unduly interfere with a federal maintenance dredging project. In accordance with state and federal regulatory requirements and at the direction of the USACE, specified in-water structures should be temporarily removed from the GHA at the owner's expense as necessary to accommodate maintenance dredging of the federal navigation projects. Failure of an owner to remove an in-water structure causing undue interference with a federal dredging project after proper notification may result in removal of that structure by the USACE at the owner's expense.
 - 5.3.10 Notwithstanding anything in the preceding sections 5.3.1 through 5.3.9, DEEP has advised the HMC that because state policies regarding visual quality, views and vistas, and aesthetic impacts are imprecise and undefined, they have rarely been determining factors in DEEP's coastal regulatory decisions absent specific harbor management plan criteria or standards.
- 5.4 **Neighborhood Character and Quality of Life:** Activities in the GHA and use and development of the GHA waterfront should be carefully planned, reviewed, and regulated to avoid adverse impacts on the traditional character and quality of life in the Town's coastal area neighborhoods. In-water and waterfront activities should not cause nuisance impacts that affect waterfront residential areas, including, but not limited to, noise, litter, unshielded light, and wave impacts.

6.0. WATER AND WATERFRONT ACCESS

The Town's waterfront character, along with the vitality of its navigable waters, depend, in large part, on continued provision of safe and enjoyable opportunities for both physical and visual access to the GHA and shoreline, including access by both Town residents and non-residents. The Town's waterfront parks and marinas will require continued management attention to ensure that they are effectively maintained for beneficial public use and enjoyment, and that plans for establishment of new areas and facilities and enhancement of existing areas and facilities are achieved. In addition, through application of the Connecticut Coastal Management Act's water-dependent use policies, the Town has the opportunity to obtain public access amenities from the developers of properties within the WB Zones. Balancing the littoral rights of waterfront property owners and the rights of the general public for navigation and access waterward of the MHW line will remain a perennial issues requiring careful attention.

6.1 **Access to the GHA and Along the Shoreline:**

- 6.1.1 Facilities and opportunities for appropriate and beneficial public access to the GHA, consistent with the capacity of the GHA and waterfront to accommodate those facilities and opportunities and with the existing character of coastal area neighborhoods, should be encouraged and supported. Public access should be considered as physical and/or visual access to the GHA that will be available to all

members of the general public, including both residents and non-residents of the Town.

- 6.1.2 When developing facilities and opportunities for public access to the GHA, consideration should be given to the inherent hazards associated with intertidal flats and other coastal resources and conditions.
- 6.1.3 Existing views of the GHA and waterfront from public streets should be maintained; removal of nonessential barriers and other feasible initiatives to improve visual access to the GHA and waterfront are encouraged and supported.
- 6.1.4 When pursuing opportunities for access to the GHA, consideration should be given to avoiding conflicts with active water-dependent uses, including recreational boating facilities.

6.2 Public and Private Rights for Use of the GHA:

- 6.2.1 The littoral rights of the owners of land contiguous to the GHA, including the right of access to navigable water and the right to other improvements and useful purposes, should be recognized. However, it should also be recognized that no rights are absolute. The exercise of littoral rights by waterfront owners should not have a significant adverse effect on public water-access opportunities, coastal resources, visual quality, traditional water uses, and other public rights and interests associated with the land and water resources waterward of the MHW line.

7.0 HARBOR ADMINISTRATION

Achieving and maintaining the most effective coordination and cooperation among the many different agencies and organizations with significant interests and authorities concerning the GHA will be an on-going harbor management focus. Related issues concern how funds for implementation of the Plan are obtained and allocated; how to make sure that governmental and private actions affecting the GHA are planned and implemented in a manner consistent with the Plan, and how to ensure that the Plan can respond to changing conditions and circumstances affecting the GHA.

- 7.1 **Harbor Management Review:** A Town Harbor Management Review Process should be maintained to ensure effective implementation of the Plan and to provide coordinated, efficient, and comprehensive local review of proposed projects affecting the real property on, in, or contiguous to the GHA.
- 7.2 **Harbor Management Funds:** Adequate funds should be obtained and allocated to properly manage and maintain the GHA and public facilities on, in, or contiguous to the GHA in the public interest. In accordance with authorities provided by the Connecticut General Statutes and Special Legislative Acts, a fee schedule should be established for mooring or anchorage permits and other activities within the scope of the Plan. All funds obtained and allocated for harbor management purposes should be managed according to the highest governmental standards of transparency and fiscal responsibility.

- 7.3 Public Support and Interest:** The presentation and discussion of all relevant public concerns regarding the GHA and Plan should be encouraged and supported, including concerns expressed by Town residents, waterfront property and business owners, public officials, boaters and other users of the GHA, interested organizations, and the general public.
- 7.4 Coordination Among Town Agencies:**
- 7.4.1 For the purpose of implementing the Plan, the HMC should maintain coordination with all Town agencies with authorities and responsibilities affecting the GHA, including, but not limited to, the Department of Parks and Recreation, Board of Parks and Recreation, Planning and Zoning Commission, Planning and Zoning Board of Appeals, Conservation Commission, Inland Wetlands and Watercourses Agency, Shellfish Commission, Department of Health, Department of Public Works, Police Department, Fire Department, and Flood and Erosion Control Board.
- 7.4.2 Implementation of all Town plans and programs affecting the GHA, including the Plan and the POCD, should proceed in the most coordinated manner possible, emphasizing consistent objectives related to future beneficial use of the GHA and protection of environmental quality, including water quality, associated with the GHA. The Plan and the POCD should be implemented as complementary and consistent documents.
- 7.5 Mooring Administration:** In accordance with Sec. 22a-113r of the Connecticut General Statutes and regulations adopted pursuant to the Plan, the users of all mooring locations in the GHA, including individual-private and commercial mooring locations, must obtain a permit from the Harbor Master; the administration of all mooring permits shall be in accordance with applicable state and federal laws and any regulations adopted pursuant to the Plan.
- 7.6 Coordination with the Harbor Master:** The Harbor Master should exercise his or her duties in a manner consistent with the Plan and work cooperatively with the HMC, Greenwich Police Department, and other agencies and officials to advance the Plan's goals for safe and efficient operation of the GHA. The Harbor Master's responsibility in this regard should be carried out in a manner consistent with all applicable federal, state, and Town laws, statutes, regulations, and ordinances, including, but not limited to, the Connecticut General Statutes and Special Legislative Acts.
- 7.7 Coordination with Other Municipalities:** To the extent practical, the Town should coordinate harbor management initiatives with other Connecticut and New York State communities with jurisdictions in Long Island Sound. This coordination should be for the purpose of addressing any common interests and concerns that may affect the GHA, including, but not limited to, concerns for boating safety, homeland security and protection of coastal resources and water quality.
- 7.8 Coordination with Private Boating and Yacht Clubs:** To the extent practical, the Town should coordinate harbor management initiatives with private boating and yacht clubs for the purpose of achieving the Plan's goals.

Chapter Six:

Recommendations and Guidelines

This chapter sets forth harbor management recommendations and guidelines for each of the seven harbors of the Town within the boundaries of the GHA. The harbors, shown on map 6-1, are:

- 1) Byram River/Port Chester Harbor
- 2) Byram Harbor
- 3) Greenwich Harbor
- 4) Cos Cob Harbor
- 5) Greenwich Cove
- 6) Tomac Creek
- 7) Outer Harbor

Some of the recommendations and guidelines are depicted geographically for each harbor on maps 6-2 through 6-8.



BYRAM RIVER / PORT CHESTER HARBOR

1. Water-Dependent Uses: Continued beneficial operation and enhancement of water-dependent uses in the harbor, including recreational boating facilities in the South Water Street WB Zone, is supported, consistent with all other applicable provisions of the POCD, Byram Comprehensive Plan, Town Building Zone Regulations, and the CCMA. Future development projects that may affect established water-dependent uses in the South Water Street WB Zone should not result in significant reduction of available recreational boating services, including, but not limited to, boat maintenance, repair, berthing, and storage facilities.

2. Federal Navigation Project: The Port Chester Harbor federal navigation project including the federal navigation channel from Long Island Sound to the Mill Street bridge, the federal anchorage basin west of the Byram Point jetty, and the Byram Point jetty, should be maintained as needed according to Congressionally authorized dimensions and locations, including authorized channel depths of 10 to 12 feet MLLW and anchorage depth of 12 feet MLLW.

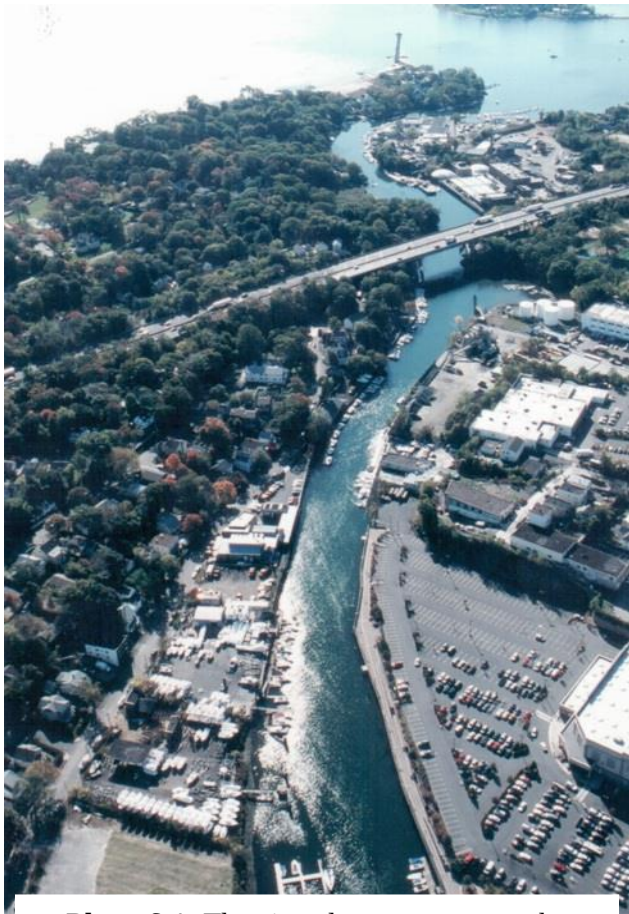


Photo 6-1: The view downstream over the Byram River/Port Chester Harbor channel

3. Public Boating Facilities: Opportunities for establishing a public landing to serve visiting and resident boaters on an appropriate waterfront site in the harbor should be evaluated and to the extent feasible pursued, including opportunities that would provide pedestrian access to and from the harbor and the commercial business district of the Byram area of the Town.

4. Pedestrian Access: Implementation of the Byram River “Riverwalk” as recommended in the Byram Comprehensive Plan is supported; to the extent feasible, the Town should require well-designed facilities and opportunities for public access to the harbor through waterfront development projects subject to the Town’s Coastal Site Plan Review authority in the South Water Street WB Zone.

5. DPW Park: Relocation of the Department of Public Works storage facilities to a suitable non-waterfront location is encouraged, along with redevelopment of the property with appropriate facilities and amenities for public access to the harbor as recommended in the Byram Comprehensive Plan, consistent with the POCD and the Plan.

6. Mooring and Anchoring: Mooring of vessels in the harbor should be restricted to the federal anchorage basin; it should be recognized that anchoring opportunities are significantly limited due to the narrowness of the waterway and the presence of the federal navigation channel.
7. Church Street Area: This public street end should be utilized to its full potential as an area providing pedestrian access to the harbor as recommended in the Byram Comprehensive Plan, consistent with the POCD and the Plan.
8. Mitigating Flood Hazards: Appropriate plans and programs to reduce and otherwise mitigate the potential adverse impacts of waterfront flooding on natural resources and property in the Byram River watershed, are encouraged and supported, in accordance with the Byram River Watershed Management Plan.
9. Storm Water Management: Suitable structural and/or nonstructural storm water treatment systems and appropriate technology should be applied to manage, treat, reduce, or otherwise control storm water runoff into the harbor, including runoff from waterfront properties and bridge decks, including the Putnam Ave., Rte. 1, Metro North Railroad, Mill St., and I-95 bridges, and runoff into the Byram River upstream of the Mill St. Bridge. Priority projects for implementation may include storm water management projects identified in the Byram River Watershed Management Plan.
10. Marine Sanitation: Provision of a vessel-waste pump-out facility may be encouraged and supported in the South Water Street WB Zone as may be necessary to meet the needs of boaters in the harbor.
11. Neighborhood Preservation: The traditional character and beneficial quality of life associated with waterfront residential areas in the Byram area of the Town should be recognized and protected; implementation of the Byram Comprehensive Plan is supported, consistent with the POCD and the Plan
12. Byram River and Watershed: Initiatives to improve water quality in the harbor, address flooding issues, and otherwise protect and enhance coastal resources should be planned and implemented, to the extent practical, on a watershed-wide basis, and should include initiatives identified in the Byram River Watershed Management Plan.
13. Coordination with the Village of Port Chester and Other Municipalities: To the extent practical, the Town should coordinate planning and regulatory initiatives with the Village of Port Chester and other New York State communities with jurisdictions in the Byram River watershed to address any common concerns that may affect the harbor, river, and watershed, including, but not limited to, concerns for protection of coastal resources and water quality, mitigation of flood hazards, regulation of boating activities, use of the federal navigation project, and implementation of the Byram River Watershed Management Plan.

BYRAM HARBOR

1. Byram Park and Marina: Byram Park should be managed and maintained as a focal point and central facility for public water access activities on the Town's shoreline. The park should be utilized to its full potential as a waterfront park providing opportunities for safe and enjoyable access to the harbor, including access for boating and swimming, as well as opportunities for special water and waterfront events. Provision of a vessel-waste pump-out facility at the Byram Marina with adequate capacity to serve the needs of boaters in the harbor is encouraged and supported.
2. Byram Shore Boat Club: Continued beneficial operation of the boat club on Town-owned land in coordination with operation of the Byram Marina and in accordance with an appropriate lease agreement with the Town is encouraged and supported.



Photo 6-2: Waterfront residential development and the Byram Park Marina on the Byram Harbor shoreline

3. Belle Haven Club: Continued beneficial operation of the club as a viable water-dependent use providing opportunities for access to the GHA, including access to harbor mooring locations, is supported. Mooring locations managed and maintained by the club for the exclusive use of members and guests should be managed and maintained by the club in accordance with appropriate permits issued by DEEP and the USACE, and permits issued by the Harbor Master. Subject to the terms and conditions of its state and federal authorizations, the club should be responsible for determining the precise number of mooring locations, size of moored vessels, and specific locations for placement of mooring tackle.

4. Dredging: Maintenance dredging should be conducted in a timely and environmentally sound manner, as needed to provide for safe and efficient use of designated mooring areas, safe and efficient public access to the harbor from the Byram Marina, and continued beneficial use of the Byram Marina and Bell Haven Club marina.
5. Shell Island Wildlife Sanctuary: Continued management of Shell Island by the Greenwich Land Trust as a natural area providing wildlife habitat and appropriate opportunities for wildlife observation and study is supported, consistent with the natural capacity of the island to support such use in a safe and environmentally sound manner.
6. Neighborhood Preservation: The traditional character and beneficial quality of life associated with waterfront residential areas, including the Byram and Belle Haven residential areas of the Town should be recognized and protected.
7. Storm Water Management: Suitable structural and/or nonstructural best management practices and appropriate storm water treatment systems and technology should be applied to manage, reduce, treat, or otherwise control storm water runoff and discharges into the harbor, including runoff from Byram Park parking areas, I-95, and areas adjoining Tom's Brook. Storm water runoff from the Byram Marina should be managed in accordance with a Town plan for storm water management.

GREENWICH HARBOR

1. Water-Dependent Uses: Continued beneficial operation and enhancement of water-dependent uses in the harbor, including Town- and privately operated recreational boating facilities and facilities in the Steamboat Road WB Zone, is supported, consistent with all other provisions of the Plan, the POCD, the Town's Building Zone Regulations, and the CCMA. Future development projects that may affect established water-dependent uses in the Steamboat Road WB Zone should not result in significant reduction of available recreational boating services.

With recognition of the existing proximity of the navigation channel to the Roger Sherman Baldwin Park shoreline and Steamboat Road shoreline, all proposals for bulkhead maintenance, repair, and replacement in the Park and Steamboat Road WB Zone should be designed and reviewed to avoid waterward extension beyond the extent necessary, thereby avoiding adverse impacts on navigation and encroachment into the federal navigation project.

2. Federal Navigation Project: The Greenwich Harbor federal navigation project, including the federal channel from Long Island Sound to the Town ferry docks on the east side of Roger Sherman Baldwin Park and the two federal anchorage basins near Grass Island, should be maintained as needed according to Congressionally authorized dimensions and locations, including the authorized channel depth of 12 feet MLLW and anchorage depths of six and eight feet MLLW. Dredging to restore the viability of the federal anchorage west of Roger Sherman Baldwin Park, including its capacity to serve as a harbor of refuge during storm events, is supported.



Photo 6-3: Looking south over Greenwich Harbor, the Steamboat Road peninsula, and the intertidal resource area in Smith Cove

3. Federal Anchorage: All mooring locations in the federal anchorage shall be properly permitted by the Harbor Master and managed in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations and any duly approved agreements and orders relative to management of moorings consistent with local, state, and federal requirements. Any mooring tackle that would interfere with approved maintenance dredging of the federal navigation project must be removed from the navigation project by the owner of that tackle prior to commencement of dredging operations.
4. Roger Sherman Baldwin Park: Roger Sherman Baldwin Park should be managed and maintained as a focal point and central facility for public water access activities on the Town's shoreline. The park should be utilized to its full potential as a waterfront park providing opportunities for safe and enjoyable access to the harbor, including visual access for enjoyment of scenic views and access to island recreation areas via Town ferries, as well as opportunities for enjoyment of special water and waterfront events conducted in accordance with Town-issued permits for group use of the park. Opportunities for expanded water-dependent use of the park, including opportunities for establishing public boating facilities enhanced by the park's proximity to downtown Greenwich, should be evaluated and, to the extent feasible, pursued for the benefit of local and visiting boaters.
5. Emergency Services Facilities: Continued operation and enhancement, as necessary, of the existing water-access facilities and base of operations of the Police Department's Marine Operations Division is supported.

6. Grass Island Park and Marina: Grass Island Park should be managed and maintained as a focal point and central facility for public water access activities on the Town's shoreline, in coordination with management and operation of the Town's Grass Island Wastewater Treatment Plant and protection of wildlife habitat in the designated Grass Island Conservation Area.

Grass Island Marina should be utilized to its full potential as a public boating facility providing opportunities for safe and enjoyable boating access to the harbor. Enhancement of marina facilities is encouraged and supported, in accordance with a comprehensive park and marina management plan. Opportunities for improving boating access to the harbor from the marina should be pursued to the extent feasible.

The level of facility maintenance and Town resources allocated for facility maintenance should be commensurate with the status of Grass Island Park and Marina as a focal point and central facility for public water access on the Town's shoreline, and operation of the marina as one of the Town's four principal public boating facilities.

The existing vessel-waste pump-out facility should be evaluated to ensure it has adequate capacity and is sited in the most appropriate location at the Grass Island Marina to serve the needs of boaters in the harbor.

7. Greenwich Boat and Yacht Club: Continued beneficial operation of the boat and yacht club as a viable water-dependent use providing opportunities for access to the GHA on Town-owned land in coordination with operation of the Grass Island Park and Marina and in accordance with an appropriate lease agreement with the Town is supported.

8. Guest Moorings: To complement public boating facilities available in the harbor, a suitable number of mooring locations with Town-owned mooring tackle should be provided in appropriate locations at the direction of the HMC for use by visiting boaters. Use of guest moorings shall be consistent with federal policies for use of federal navigation projects and require permission from the Harbor Master in accordance with regulations established by the HMC.

9. Indian Harbor Yacht Club: Continued beneficial operation of the yacht club as a viable water-dependent use providing opportunities for access to the GHA, including access to harbor mooring locations, is supported. Mooring locations managed and maintained by the club for the exclusive use of members and guests should be managed and maintained by the club in accordance with appropriate permits issued by DEEP and the USACE and permits issued by the Harbor Master. Subject to the terms and conditions of its state and federal authorizations, the club should be responsible for determining the precise number of mooring locations, size of moored vessels, and specific locations for placement of mooring tackle.

10. Nonfederal Dredging: Nonfederal maintenance dredging should be conducted in a timely and environmentally sound manner, as needed to provide for safe and efficient use of designated mooring areas, safe and efficient navigation, and continued beneficial use of the Grass Island Marina, Greenwich Boat and Yacht Club, and other water-dependent facilities. Nonfederal maintenance dredging in the harbor may include duly authorized maintenance dredging of areas within the federal navigation project, funded by or otherwise conducted by the Town and/or other non-federal entities with appropriate state and federal approvals.

11. Harbor Icing: Town, state, and federal agencies and officials, along with water-dependent facility operators, should coordinate and apply available resources to address any potentially dangerous and damaging conditions caused by ice conditions and the operation of vessels during periods of icing, and to maintain navigable access to and from Long Island Sound, the base of operations of the Greenwich Police Department's Marine Operations Division, and the Outer Harbor islands.
12. Steamboat Road Landing: The Town right-of-way known as the Steamboat Road Landing at the foot of Steamboat Road should be managed and maintained as a public access area providing opportunities for visual access to the GHA, consistent with traditional neighborhood character, parking availability, and the capacity of the area to support public use in a safe and environmentally sound manner.
13. Wastewater Treatment Plant: The Town should continue to maintain, operate, and as necessary upgrade the Grass Island Wastewater Treatment Plant in accordance with best available technology and in coordination with use and management of Grass Island as a focal point and central facility for public water access on the Town's shoreline. The plant should be operated and maintained according to its design standards.
14. Grass Island Conservation Area: The fish and wildlife habitat associated with the Grass Island Conservation Area should be preserved and, to the extent feasible, enhanced. Tidal exchange needed to support viable intertidal habitat should be maintained.
15. Intertidal Resources: Any future plans for waterfront improvements on, in, or contiguous to the harbor should be carefully planned to avoid, reduce, or otherwise mitigate any significant adverse impacts on viable intertidal resources, including tidal wetlands and intertidal flats, including intertidal resources in Smith Cove and Indian Harbor.
16. Storm Water Management: The use of suitable structural and/or nonstructural best management practices and appropriate storm water treatment systems and technology should be applied to manage, reduce, or otherwise control storm water runoff into the harbor, including runoff from parking areas, Town parks, waterfront commercial areas, I-95, and Horseneck Creek, and runoff through the two 60-inch storm water discharge pipes at the head of the harbor. Management of storm water runoff from the Grass Island Marina area and Roger Sherman Baldwin Park should be in accordance with Town plans for storm water management.

COS COB HARBOR

1. Water-Dependent Uses: Continued beneficial operation and enhancement of water-dependent uses in the harbor, including Town- and privately operated recreational boating facilities and facilities in the River Road Waterfront Business District, is supported, consistent with all other provisions of the Plan, the POCD, Cos Cob Neighborhood Plan, the Town's Building Zone Regulations, and the CCMA.

Future development projects that may affect established water-dependent uses in the River Road WB Zone should not result in significant reduction of available recreational boating services, including, but not limited to, boat maintenance, repair, berthing, and storage facilities.

With recognition of the existing proximity of the navigation channel to the shoreline of the River Road WB Zone, all proposals for bulkhead maintenance, repair, and replacement in the should be designed and reviewed to avoid waterward extension beyond the extent necessary, thereby avoiding adverse impacts on navigation and encroachment into the federal navigation project.

2. Mianus River Federal Navigation Project: The federal navigation project, including the federal channel from Long Island Sound to the head of navigation near the Rte. 1 bridge, should be maintained in a timely manner as needed according to its Congressionally authorized dimensions and locations, including the authorized channel depth of six feet at MLLW.

3. Commercial Fishing Facilities: Provision of docking space for commercial fishermen, as well as service, access, and related storage facilities for commercial fishing operations in suitable locations, on, in, or near the harbor is supported, consistent with all other provisions of the Plan, the POCD, Cos Cob Neighborhood Plan, the Town's Building Zone Regulations, the CCMA, and state and federal regulatory requirements.

4. Cos Cob Marina: The Town's Cos Cob Marina should be managed and maintained as a focal point and central facility for public boating activities on the Town's shoreline. The marina should be utilized to its full potential as a public boating facility providing opportunities for safe and enjoyable boating access to the harbor. Enhancement of marina facilities is encouraged and supported in accordance with a comprehensive marina management plan prepared by the Town. Opportunities for improving boating access to the harbor from the marina should be pursued to the extent feasible.

Vessel-waste pump-out facilities with adequate capacity should be maintained in the most appropriate locations at the Cos Cob Marina and in the River Road Waterfront Business District to serve the needs of boaters in the harbor.



Photo 6-4: Cos Cob Harbor on the Mianus River;
Cos Cob Park site prior to construction

5. Cos Cob Park: Cos Cob Park should be managed and maintained as a focal point and central facility for public water access activities on the Town's shoreline. The park should be utilized to its full potential as a waterfront park providing opportunities for safe and enjoyable access to the harbor, including visual access for enjoyment of scenic views and access for appropriate boating activities, as well as opportunities for enjoyment of special water and waterfront events.
6. Mianus River Boat and Yacht Club: Continued beneficial operation of the boat club on Town-owned land in coordination with operation of the Cos Cob Marina and in accordance with an appropriate lease agreement with the Town is supported.
7. Riverside Yacht Club: Continued beneficial operation of the yacht club as a viable water-dependent use providing opportunities for access to the GHA, including access to harbor mooring locations, is supported. Any mooring locations in the Special Anchorage Areas that are managed and maintained by the club for the exclusive use of its members and guests should be managed and maintained in accordance with appropriate permits issued by DEEP, the USACE, and the Harbor Master.
8. Nonfederal Dredging: Nonfederal maintenance dredging should be conducted in a timely and environmentally sound manner, as needed to provide for safe and efficient use of designated mooring areas, safe and efficient navigation, and continued beneficial use of the Cos Cob Marina, Mianus Boat and Yacht Club, and other water-dependent facilities, including facilities in the River Road WB Zone. Nonfederal maintenance dredging in the harbor may include duly authorized

maintenance dredging of areas within the federal navigation project, funded by or otherwise conducted by the Town and/or other nonfederal entities with appropriate state and federal approvals.

9. Special Anchorage Areas: Use of the Special Anchorage Areas shall be in accordance with all applicable local, state, and federal laws, ordinances, rules, and regulations, including the rules and regulations established in the Code of Federal Regulations (33 CFR 110.58).

10. Newman Street Property: Relocation of the Department of Public Works Newman Street facility to a suitable non-waterfront location is encouraged and supported, along with redevelopment of the property with appropriate facilities and amenities for public access to the harbor, as recommended in the Cos Cob Neighborhood Plan. A Town plan for public use of the property should be prepared with input from all potentially affected parties, including neighborhood residents and Town agencies.

11. Railroad Bridge Operation: Procedures and practices to ensure that openings of the Metro-North Commuter Railroad Bridge occur in the most efficient and effective manner needed to accommodate safe navigation should be maintained. Height gauges should be clearly visible on the upstream and downstream sides of the bridge. Any work to maintain, repair, or replace the railroad bridge should be carefully planned, conducted, and monitored to reduce or avoid any potentially adverse impacts on navigation, coastal resources, and water quality.

12. Rowing: Recognizing the growing popularity of organized rowing on the Mianus River, the HMC in consultation with the various stakeholders, should investigate and make recommendations on how best to manage this increasing activity. Organized rowing activities in the Harbor and events involving rowing shells should be planned and undertaken in a manner to reduce or avoid potential conflicts and adverse impacts affecting general navigation and other harbor activities.

13. Cos Cob Mill Pond: Fish and wildlife habitat associated with the Mill Pond should be preserved and, to the extent feasible, enhanced. Sufficient tidal exchange to support viable intertidal habitat should be maintained; storm water runoff into the Mill Pond should be properly managed to avoid undue pollution and sedimentation affecting the harbor.

14. Mianus Pond Fishway and Walkway: Effective operation, maintenance, and enhancement, as needed, of the fishway and walkway to enable diadromous fish to migrate between the harbor and upstream locations in the river is supported for the purpose of: a) continuing to enhance the ecological health of the river and harbor; b) providing educational and scientific benefits; and c) providing opportunities for public enjoyment associated with access to the facility and observation of its operation.

15. Neighborhood Preservation: The traditional character and beneficial quality of life associated with waterfront residential areas, including the Cos Cob and Riverside residential areas of the Town, should be recognized and protected; implementation of the Cos Cob Neighborhood Plan is supported, consistent with the POCD and the Plan.

16. Storm Water Management: Suitable structural and/or nonstructural storm water treatment systems and appropriate technology should be applied to manage, reduce, or otherwise control storm water runoff into the harbor, including runoff from waterfront properties and bridge decks, including the Rte. 1, I-95, and Metro North Railroad bridges, and runoff into the Mianus River upstream of the Rte. 1 Bridge. Priority projects for implementation may include storm water management projects identified in the Mianus River Watershed-Based Plan. Management of storm water runoff from the Cos Cob Marina should be in accordance with a Town plan for storm water management.

17. Mianus River and Watershed: Initiatives to improve water quality in the harbor, address flooding issues, and otherwise protect and enhance coastal resources should be planned and implemented, to the extent practical, on a watershed-wide basis, and should include initiatives identified in the Mianus River Watershed-Based Plan.

GREENWICH COVE AND TOMAC CREEK

1. Water-Dependent Uses: The continued beneficial operation of water-dependent facilities, including Greenwich Point Park facilities and facilities maintained by the Lucas Point Association and Rocky Point Club, is supported, consistent with all other provisions of the Plan, the POCD, the Town's Building Zone Regulations, and the CCCMA, and the existing non-commercial character of Greenwich Cove and Tomac Creek.

2. Greenwich Cove Channel and Other Navigation Areas: The nonfederal channel providing navigation access between Long Island Sound and the boating facilities and designated mooring area in the cove should be maintained free of obstructions, and with a depth of at least six feet at MLLW and width of 100 feet. Dredging in an environmentally sound manner, as needed to provide for safe and efficient navigation in the Greenwich Cove channel, beneficial use of the Town-designated mooring area, continued public access to the GHA from the Greenwich Point Marina, continued beneficial use of the marina, and continued navigation access to residential docks in the inner cove is supported. In addition, it is recognized that the cove is subject to ongoing siltation and that additional dredging may be needed to maintain navigation and vessel usage in other traditional navigation areas in the inner cove, including in the numerous smaller coves and inlets.

3. Greenwich Point Park: Greenwich Point Park should be managed and maintained as a focal point and central facility for public water access activities on the Town's shoreline. The park should be utilized to its full potential as a waterfront park providing opportunities for safe and enjoyable access to the cove and GHA by the general public, including both residents and non-residents of the Town, consistent with the capacity of the area to support safe and enjoyable public use in an environmentally sound manner. Public facilities and amenities should support access for boating, swimming, and recreational shellfishing, as well as opportunities for walking, picnicking, and enjoyment of scenic views and special water and waterfront events conducted in accordance with Town-issued permits for group use of the park.



Photo 6-5: Greenwich Point Boatyard and Town-managed mooring field in Greenwich Cove

4. Greenwich Point Boatyard: This facility should be utilized to its full potential as a public boating facility providing opportunities for safe and enjoyable boating access to the GHA. Enhancement of boatyard facilities in accordance with the comprehensive park and boatyard management plan is encouraged and supported. Opportunities for improving boating access to the cove from the boatyard should be pursued to the extent feasible. Provision of a vessel-waste pump-out facility with adequate capacity and located in the most appropriate location at the Greenwich Point Boatyard to serve the needs of boaters in the Cove is encouraged and supported. Management of storm water runoff from the boatyard should be in accordance with a Town plan for storm water management.
5. Old Greenwich Yacht Club: The continued beneficial operation of the yacht club on Town-owned land in coordination with operation of the Greenwich Point Boatyard and in accordance with an appropriate lease agreement with the Town is supported.
6. Rocky Point Club¹: Continued beneficial operation of the club as a viable water dependent use providing opportunities for access to the GHA, including access to mooring locations, is supported.
7. Tomac Creek Overlook: The Town walkway at the foot of Tomac Lane should be managed and maintained as a public access area for fishing and enjoyment of scenic views, consistent with traditional neighborhood character and the availability of public parking.

¹ The Rocky Point Club is located on the Town's Long Island Sound shoreline, outside the Town-established boundaries of Greenwich Cove and Tomac Creek.

8. Greenwich Point Ponds: The fish and wildlife habitat associated with the Greenwich Point ponds, including Eagle and Clock Tower ponds, should be preserved and, to the extent feasible, enhanced. Tidal exchange needed to support viable intertidal habitat should be maintained through effective and well-maintained tide gates and culverts.
9. Binney Park Pond: Storm water runoff into Binney Park Pond upstream of the GHA should be properly managed to avoid undue pollution and sedimentation affecting the GHA. Dredging of aquatic sediment in the pond is supported if it should be determined, based on best available scientific information, that such dredging can be carried out in a cost-effective manner expected to have beneficial impacts on water circulation and aquatic habitat without significant adverse environmental impacts.
10. Improved Water Quality: Environmentally sound initiatives for improving water quality, reducing sedimentation, and restoring and/or enhancing coastal resources, including shellfish resources, in Greenwich Cove are encouraged and supported. Any proposal for improving water circulation and tidal exchange between the cove and Long Island Sound should be based on best available scientific information and sound engineering practice and prepared in consultation with the Town, state, and federal agencies with relevant authorities and interests. Any project for improving water circulation and tidal exchange in the cove should be pursued if it is determined that the project will provide significant environmental benefits, be implemented at a reasonable cost to the Town relative to anticipated benefits, and not be substantially outweighed by any significant adverse impacts on coastal resources.
11. Intertidal Resources: Any future plans for waterfront improvements on, in, or contiguous to the cove and Tomac Creek should be carefully planned to avoid, reduce, or otherwise mitigate any significant adverse impacts on viable intertidal resources, including tidal wetlands and intertidal flats adjoining Long Meadow Creek and Tomac Creek, and in the Eagle and Clock Tower ponds.
12. Neighborhood Preservation: The traditional character and beneficial quality of life associated with waterfront residential areas, including the Riverside and Old Greenwich residential areas of the Town should be recognized and protected.
13. Coordination with the City of Stamford: To the extent practical, the Town should coordinate harbor management planning, management, and regulatory actions with the City of Stamford to address any common concerns that may affect Tomac Creek and the GHA, including, but not limited to, concerns for protection of coastal resources and water quality, regulation of boating activities, management of mooring locations that may affect designated shellfishing grounds, and resolution of any uncertainties regarding municipal boundaries in navigable waters.

OUTER HARBOR

1. Navigation Access: The right of the general public to use and have access to the waters of Long Island Sound in the Outer Harbor in accordance with the Public Trust Doctrine should be recognized and protected.

2. Great Captain Island: Great Captain Island should be managed and maintained as a focal point and central facility for beach recreation in the GHA. In coordination with management of the island as a beach recreation area, the island's lagoon and the habitat surrounding the lagoon should be managed by the Town as a wildlife conservation area. The former federal light house property should be managed as a Town historic site and September 11 Memorial site.

Water access facilities to be maintained for public use and enjoyment include the public beach and designated swimming area, picnic areas, and pedestrian facilities for enjoying views of the GHA and Long Island Sound. Enhancement of the island's water-dependent facilities, including the Town ferry dock, and beach re-nourishment as needed, is encouraged and supported, in accordance with a comprehensive park management plan prepared by the Town.

3. Little Captain Island: Little Captain Island should be managed and maintained as a focal point and central facility for beach recreation in the GHA. The park should be utilized to its full potential as a waterfront park providing opportunities for safe and enjoyable access to the GHA, including access for swimming and recreational shellfishing, as well as opportunities for picnicking and enjoyment of scenic views, consistent with the natural capacity of the island to support such recreational use in a safe and environmentally sound manner.

Water access facilities to be maintained for public use and enjoyment include the public beach and designated swimming area, picnic areas, and pedestrian facilities for enjoying views of the GHA and Long Island Sound. Enhancement of the island's water-dependent facilities, including the Town ferry dock, and beach re-nourishment as needed, is encouraged and supported, in accordance with a comprehensive park management plan prepared by the Town.

4. Calf Island Wildlife Refuge: Continued management of Calf Island as a distinct unit of the Stewart B. McKinney National Wildlife Refuge providing appropriate opportunities for wildlife observation and study, is supported, provided public use is consistent with the island's natural capacity to support such use in a safe and environmentally sound manner. (See Map 6-3.)

5. Great Captain Island Conservation Area: The fish and wildlife habitat associated with the Great Captain Island Lagoon and Conservation Area, including, but not limited to, habitat for egrets and other wading birds, should be preserved and, to the extent feasible, enhanced, restored, and otherwise managed consistent with the environmental capacity of the affected coastal resources. Tidal exchange in an amount sufficient to support viable intertidal habitat should be maintained. It is recognized that the increasing numbers of waterfowl and other migratory birds nesting on Great Captain Island have and are continuing to deforest the trees and shrubs on the island.

6. Commercial “Nurse” Moorings: Placement and use of any commercial mooring locations in the Town’s Outer Harbor shall require authorization from DEEP, the USACE, and Harbor Master following review by the HMC. Any proposal for placement of a commercial “nurse” mooring should be carefully planned and reviewed to avoid, reduce, or otherwise mitigate any significant adverse impacts on coastal resources, water quality, navigation, and other pertinent marine conditions. No commercial “nurse” mooring should be authorized unless it is clearly demonstrated by the applicant that no significant adverse impacts on pertinent marine conditions should be expected. Placement and use of any authorized mooring shall be in accordance with any terms and conditions as may be specified in the state and federal authorizations for that mooring.



Photo 6-6: Little Captain Island

Chapter Seven:

Authorities and

Responsibilities for

Plan Implementation

This chapter establishes the responsibilities for implementing the Plan.

Plan implementation is achieved through the actions and decisions of: 1) the RTM; 2) BOS; 2) HMC, including the HMC's responsibility for carrying out the Town's Harbor Management Review Process; 3) other Town agencies; 4) the Harbor Master; 5) state and federal agencies; and 6) private groups and individuals.

It is herein recommended that Plan implementation should be pursued through an on-going, evolving process involving the coordinated actions of all Town, state, and federal agencies with programs and authorities that affect the GHA.



REPRESENTATIVE TOWN MEETING

The RTM provides leadership and support for the Town's land- and water-use planning initiatives, including harbor management initiatives, and has the following responsibilities for advancing the Plan.

1. Adoption of the Plan and any future amendments to the Plan as needed to respond to changing conditions and circumstances.

Responsibility for adoption of the Plan rests with the RTM. Sec. 22a-113m of the Connecticut General Statutes sets forth the procedure for approval and adoption of municipal harbor management plans.¹ In accordance with this procedure, the Plan prepared by the HMC must be reviewed by the USACE, approved by the Connecticut Commissioner of Energy and Environmental Protection and Connecticut Port Authority, and adopted by the RTM before it may take effect. In addition, in accordance with Chapter 7A of the Town Code, the BOS will review the draft Plan and any subsequent amendments prior to review by the USACE and approval by the State of Connecticut; and approval by the BOS of the Plan and any amendments is required prior to adoption by the RTM.

2. Adoption of amendments to the Town Code, as needed, to implement certain provisions of the Plan.

To implement the Plan and any future Plan amendments, it may be necessary from time to time to amend Chapter 7A of the Town Code (HMC chapter) and other Town ordinances. Amendment of the ordinances may be based on recommendations provided by the HMC to the BOS and RTM. Any amended sections of the Town ordinances pertaining to the operation of vessels must be submitted to the Boating Division of DEEP for review and approval.²

¹ Sec. 22a-113m of the Connecticut General Statutes specifies that a municipal harbor management plan "... may be adopted by ordinance by the legislative body of each municipality..." With respect to this statute, "adopted by ordinance" is to be distinguished from "adopted as an ordinance." The Harbor Management Plan and any future Plan amendments are not published and adopted as an ordinance. The "ordinance" by which the RTM may adopt the Plan and future Plan amendments is in the form of a resolution following a public hearing. Chapter 7A of the Town Code may then be amended to include reference to the effective date of the adopted Plan and any future Plan amendments.

² Sec. 15-136 of the Connecticut General Statutes authorizes any town to make regulations respecting the operation of vessels within its territorial limits, subject to review and approval by the Connecticut Commissioner of Energy and Environmental Protection. In 2016, DEEP's Boating Division reviews any such regulations on behalf of the Commissioner.

3. Adoption of harbor management fee schedules.

In accordance with Sec. 22a-113s of the General Statutes and Chapter 7A of the Town Code, the HMC has authority to propose a fee schedule for a mooring or any other activity within the scope of the Plan. To take effect, any such fee schedule must be approved by the RTM and BOS. All fees collected pursuant to the Plan, excluding fees collected by Department of Parks and Recreation for use of Town boating facilities, must be deposited into the dedicated, non-lapsing Town Harbor Management Fund and used exclusively for maintenance and improvement of the GHA for the public, and for personnel and equipment directly related to the function of the HMC and Harbor Master. (See the later section on the HMC.) When considering fees for mooring permits, the RTM may consider adopting the maximum fee provided by the General Statutes and authorizing the HMC to set the precise fee within that limit. Any adopted fee schedule should be properly published and posted for public review, including review on the Town website.

4. Appointment of the HMC.

Pursuant to Chapter 7A of the Town Code, the HMC's seven members and two alternate members are nominated by the BOS and appointed by the RTM.

BOARD OF SELECTMEN

The BOS, with leadership by the First Selectman, as the Town's Chief Executive Officer, will contribute to implementation of the Plan through the following actions.

1. Approval of the Plan and any future amendments to the Plan prior to adoption by the RTM.

While responsibility for adoption of the Plan and any future Plan amendments rests with the RTM pursuant to Sec. 22a-113m of the Connecticut General Statutes, Chapter 7A of the Town Code also requires Plan approval by the BOS.

2. Support for amendment of Town ordinances, as necessary, to implement the Plan.

As may be necessary to implement certain aspects of the Plan, the BOS may prepare recommendations for proposed amendments to the Town Code and submit those recommendations to the RTM. When preparing any proposed amendments, the BOS will consider recommendations by the HMC.

3. Preparation and adoption of rules, regulations, and orders regarding use of the GHA by all vessels.

The BOS retains its authority under Special Legislative Acts 288 and 93 and Sec. 307 of the Town Charter regarding use of the GHA, including the establishment of regulations for the mooring and anchoring of all vessel for the purpose of advancing the Plan. Pursuant to Special Legislative Act 288, regulations for the mooring and anchoring of vessels may specify administrative and other appropriate responsibilities of the Harbor Master for im-

plementation of those regulations. Any such specified responsibilities of the Harbor Master should be consistent with the Plan and not conflict with regulations adopted by the HMC pursuant to Sec. 7A-6 of the Town Code and with the Harbor Master's powers and duties set forth in the Plan and General Statutes.

4. Review of actions by the HMC.

Pursuant to Chapter 7A of the Town Code, the BOS may allow for an appeal to the BOS by any person aggrieved by a decision or action of the HMC concerning a matter subject to a special act authority of the BOS. Pursuant to Sec. 7A-1 of the Town Code, at its own instigation, the BOS may review actions by the HMC as necessary to ensure that such actions are consistent with the Plan. A HMC decision may be set aside by the BOS only if it is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the Plan. Accordingly, the HMC must articulate in writing a rational connection between the facts determined and the conclusions made by the HMC in accordance with the Plan's policies and other provisions. (See the later section on the HMC.)

5. Nomination of the members of the HMC.

According to the procedure for appointment of the seven-member HMC specified in Chapter 7A of the Town Code, members of the HMC are nominated by the BOS for appointment by the RTM.

6. Leadership and coordination for advancing the Town's interests pertaining to the GHA.

The BOS will provide leadership and coordination for achievement of the Town's goals, established in the Plan and POCD, for safe and beneficial use of the GHA and waterfront and for conservation of coastal resources.

HARBOR MANAGEMENT COMMISSION

The HMC will function as the Town's principal agency for the GHA through the following actions.

1. Management of uses and activities affecting the GHA.

Consistent with its powers, duties, and responsibilities as a municipal harbor management commission authorized by the Connecticut General Statutes and established by Chapter 7A of the Town Code, the HMC will function as the principal agency of the Town for managing the beneficial use and conservation of the GHA and otherwise implementing the Plan in coordination with other Town agencies.

The HMC may utilize committees as necessary to carry out its powers and duties in the most effective manner, including, but not limited to: 1) a Finance Committee to address preparation and review of budget and financial matters; 2) an Application Review Committee to review proposals for consistency with the Plan; 3) a Mooring Committee to oversee implementation of the HMC's mooring regulations and ensure coordination between the Harbor Master and HMC for implementation of the regulations; and 4) a Long-Range

Planning Committee to periodically review the Plan, recommend amendments to the Plan and Town ordinances for implementing the Plan, and recommend special projects for implementing the Plan. All committees will be appointed by the Chairman of the HMC who may from time to time authorize other committees to fulfill the HMC's responsibilities.

Recommendations and decisions of HMC committees will become effective upon approval by the HMC.

2. Ongoing coordination with Town, state, and federal agencies for harbor management.

The HMC will maintain regular communication and liaison with the other Town agencies with authorities and responsibilities concerning the GHA, including the Town's land-use and public safety agencies, and any other agency with relevant authorities or programs. In this regard, the HMC will notify other Town agencies of applications for state permits and certificates submitted to the HMC, and will seek input from other Town agencies with relevant expertise when reviewing those applications for consistency with the Plan. The HMC will also seek input from other Town agencies when considering development of regulations, procedures, and other HMC initiatives, and will work with the Conservation, Inland Wetlands, Shellfish, Planning and Zoning, and other Town agencies to identify areas of special environmental sensitivity. In addition, the HMC will maintain regular communication and liaison, as necessary, with the divisions and units of DEEP, the USACE, U.S. Coast Guard, and other state and federal agencies. The purpose of this communication and liaison will be to address matters affecting implementation of the Plan and to otherwise advance the Town's goals for beneficial use and conservation of the GHA, consistent with all applicable Town, state, and federal laws, regulations, and ordinances, including, but not limited to, the POCD, Connecticut Harbor Management Act, and CCMA.

3. Actions to ensure continued boating and navigation safety in the GHA.

Acting in coordination with the Greenwich Police Department, Harbor Master, USACE, U.S. Coast Guard, DEEP, and other agencies, the HMC will continue to support and promote boating and navigation safety in the GHA. To help ensure continued boating and navigation safety, the HMC may:

3.1 Recommend changes to Town Ordinances.

Sec. 15-136 of the Connecticut General Statutes enables the Town to adopt local regulations regarding the operation of vessels in the GHA. In addition, Sec. 22a-113n of the General Statutes enables the Town to adopt ordinances to implement the Plan. Using this authority, the HMC may from time to time review the HMC Ordinance and other Town ordinances affecting the GHA and recommend changes—for approval by the BOS and adoption by the RTM—to respond to conditions and circumstances and to otherwise implement the Plan. Any recommended changes are to be based on, and be in conformance with, the applicable provisions of the Plan.

3.2 Provide assistance and recommendations for identification and elimination of any unauthorized encroachments in the GHA.

All proposed activities that would occur waterward of the CJL and which require DEEP approval are reviewed by the HMC for consistency with the Plan. In accordance with the Plan, all unauthorized structures (including unpermitted docks, floats, piers, bulkheads, pilings, and mooring tackle) and other work (including any unauthorized dredging or fill) extending into the federal navigation projects or into any other areas waterward of the CJL should be eliminated or otherwise corrected. Any existing unauthorized encroachments (those pre-dating the effective date of the Plan and identified either prior to, or after the effective date of the Plan) should be evaluated individually by the appropriate state and/or federal regulatory agency, with appropriate input from the HMC. Specific measures should be developed to remove or otherwise correct these existing violations.

The HMC will work in coordination with the appropriate state and federal authorities to ensure that any unauthorized encroachments constructed or occurring after the effective date of the Plan are eliminated or otherwise corrected by the offending party. The HMC should discourage the issuance of “after-the-fact” permits that would bring such violations into compliance, unless there are compelling, clearly demonstrated reasons to do so.

3.3 Review aids to navigation in and near the GHA.

With assistance from the Police Department, Harbor Master, Parks and Recreation Department, and DEEP as necessary, the HMC may periodically assess the appropriateness of federal aids to navigation in and near the GHA and transmit the results of this assessment to the U.S. Coast Guard.

With assistance from the Police Department, Harbor Master, Parks and Recreation Department, and DEEP as necessary, the HMC will review the proposed placement of all nonfederal aids to navigation in the GHA and provide comments to the agencies responsible for regulating that placement. The HMC may recommend, purchase, and direct the placement (following receipt of necessary state and federal permits) of additional nonfederal aids to navigation, as needed, to mark restricted speed zones and otherwise maintain and improve safe and efficient navigation in the GHA.

3.4 Designate navigation fairways to be kept free of obstructions.

Navigation fairways to be kept free of mooring tackle and any other obstructions may be designated by the HMC, in consultation with the Harbor Master, where necessary to ensure safe passage of recreational and commercial vessels to, from, through, and alongside the federal navigation projects and other boating activity areas (including docking, launching, and mooring areas) in the GHA.

3.5 Evaluate the appropriate extent to which docks, floats, and piers should extend waterward to reach navigable water.

Evaluation of proposed in-water structures will be carried out in accordance with the Harbor Management Review Process, taking into consideration the littoral/riparian rights of waterfront property owners, the Public Trust Doctrine, existing conditions such as distance from shore to navigable water, location of federal navigation projects, relevant state and federal resource protection laws including the CCMA, Tidal Wetlands Act, and Structures and Dredging Act, and other relevant conditions and site-specific characteristics. The HMC's recommendations concerning the appropriate distance that docks, floats, and piers should extend from shore to reach navigable water should be a principal consideration in the coastal permitting decisions of state and federal agencies.

The HMC will review proposals affecting the GHA as submitted to state and Town agencies to help ensure that all in-water structures are set back a safe and sufficient distance from the nearest channel, anchorage, or fairway boundary, in accordance with the policies and guidelines established in the Plan.

3.6 Encourage and support maintenance dredging.

The HMC will serve as the Town's principal advocate for maintenance dredging of the federal navigation projects, working cooperatively with the USACE, DEEP, CPA, and any other involved agencies, to ensure that maintenance dredging is carried out in the most efficient and timely manner to maintain safe and efficient navigation and the continued viability of water-dependent uses in the GHA.

In addition, the HMC will encourage timely, cost-effective, and environmentally sound non-federal dredging projects, including Town projects, as needed to provide safe and efficient navigation, continued viability of water-dependent uses, and public access to the GHA and Long Island Sound.

In connection with the foregoing, the HMC will encourage and support initiation and completion of environmental assessments and other pre-dredging requirements, including funding requirements, so that any needed maintenance dredging may be carried out without undue delay.

3.7 Recommend restricted speed zones as needed.

Restricted speed zones controlling the speed and wake of all power-propelled vessels in the GHA are established in the Town Code. In coordination with the Police Department and Harbor Master, and with consideration of public comments, the HMC may review the status of existing restricted speed zones and the marking of such zones in the GHA, and may recommend designation of new zones and/or modification of existing zones as may be needed to maintain public safety. The HMC's recommendations for restricted speed zones will be provided to the BOS for approval subject to the requirements of Sec. 15-136 and Sec. 15-140 of the General Statutes.

3.8 Convene public meetings and forums to provide information and otherwise address issues concerning navigation safety in the GHA.

Acting in coordination with the Police Department, Harbor Master, Coast Guard, DEEP, and other appropriate agencies and officials, as necessary, the HMC should assist with organizing and conducting public discussions on matters concerning navigation safety, including but not limited to, discussions to address conflicts among power- and sail-boating activities, hand-powered vessels such as kayaks and rowing craft, personal watercraft, and sail-training programs.

4. Adopt and amend harbor management regulations.

Pursuant to authority set forth in Chapter 7A-6 of the Town Code, the HMC may propose and amend regulations to implement its responsibilities. Regulations adopted pursuant to the Plan will be incorporated by reference therein. The HMC will propose regulations concerning the mooring and anchoring of vessels in the GHA and minimum standards for mooring tackle used in the GHA. The HMC should regularly review these rules and regulations in coordination with the Harbor Master and prepare any amendments that may be required to respond to changing conditions and circumstances. Regulations for mooring and anchoring vessels in the GHA should address, among other pertinent matters: 1) establishment of a mooring committee of the HMC; 2) requirements for mooring permits; 3) requirements for keeping mooring records; 4) procedures for assigning individual-private and commercial mooring locations; 5) establishment of navigation fairways as needed; 6) procedures for applying for a mooring permit; 7) procedures for renewing mooring permits; 8) requirement for an annual mooring permit fee; 9) transfer of mooring permits; 10) placement of mooring tackle; 11) use of mooring tackle; 12) responsibility of the vessel owner for secure mooring and anchoring; 13) identification of mooring locations and permitted vessels; 14) mooring inspection; 15) revocation of mooring permits; 16) transient mooring; 17) powers and duties of the harbor master; 18) procedures for appeal and review of mooring-related decisions; and 19) penalties for violations.

5. Implement the Town's Harbor Management Review Process to review all proposals affecting the GHA for consistency with the Harbor Management Plan. (See Figure 7-1.)

In accordance with authority provided by Sec. 22a-113p of the Connecticut General Statutes and Chapter 7A of the Town Code, the HMC may review proposals affecting the real property on, in, or contiguous to the GHA for consistency with the Plan. The review process will be known as the Harbor Management Review Process.

As necessary, the HMC may utilize an Application Review Committee of the HMC to review proposals subject to the Harbor Management Review Process and prepare recommendations for consideration by the HMC. The HMC may make a determination of a proposal's consistency with the Plan and transmit comments and recommendations concerning the proposal to the appropriate Town, state, or federal agency.

FIGURE 7-1:
HARBOR MANAGEMENT REVIEW PROCESS

- A Harbor Management Review Process is established to help ensure effective implementation of the Plan and to provide coordinated, efficient, and comprehensive local review of proposed projects affecting the GHA.
- The HMC may review, for consistency with the Plan, all proposals submitted to, or proposed by, Town of Greenwich agencies affecting the real property on, in, or contiguous to the GHA, as well as applications submitted to DEEP and the USACE, including, but not limited to:

All proposals requiring a Coastal Site Plan Review (i.e. submitted to the Planning and Zoning Commission or Zoning Board of Appeals in accordance with the CCMA) and affecting property on, in, or contiguous to the GHA.

All activities involving placement of temporary or permanent structures (e.g., docks, floats, piers), dredging, filling, or other activities below (waterward of) the high tide line.

All proposed revisions or amendments to Town plans, rules, and regulations affecting the GHA and lands adjacent to the GHA, including, but not limited to, proposed revisions and amendments to the Zoning Regulations and POCD, regulations for use of Town water-access facilities, and regulations affecting wetlands and flood and erosion control.
- It is the responsibility of project applicants to provide the information necessary for the HMC to adequately assess: a) the potential impacts of the proposal on the GHA; and b) the consistency of such proposals with the Plan. Information required should be reasonable in scope and should be in balance with the size, scope, and potential positive and negative impacts of the proposal.
- The HMC may determine the consistency of proposals with the Plan and make that finding known to the appropriate Town, state, or federal authority within an established period of time. If no comment regarding the consistency of the proposed project is made by the HMC within the established time period, the proposal will be assumed to be consistent with the Plan.
- In accordance with Sec. 22a-113p of the Connecticut General Statutes, a 2/3 vote of the referring Town agency is required to approve a proposed project that has not received a favorable recommendation from the HMC, provided that the HMC's recommendation does not alter the authority of the agency having primary jurisdiction over the proposal.
- Pursuant to Sec. 22a-113n of the Connecticut General Statutes, a recommendation of the HMC that is consistent with and adequately supported by the Plan with respect to a proposed project shall be binding on any official of the State of Connecticut when making regulatory decisions or undertaking or sponsoring development affecting the GHA, unless such official shows cause why a different action should be taken.

With regard to any determination by the HMC regarding a proposal affecting the GHA, the HMC must articulate a rational connection between that determination and the provisions of the plan. The HMC should prepare written comments on any proposal it reviews for consistency with the Plan. Recommendations of the HMC pursuant to the Plan should be well-grounded in the Plan's goals and policies and prepared and presented with reference to the relevant provisions of the Plan.

6. Ongoing examination of the effectiveness of the Plan and conditions in the GHA; preparation of proposed amendments to the Plan and Town ordinances as necessary.

The Plan should be amended as needed to respond to changing conditions and circumstances affecting the GHA.

6.1 Annual Review

Each year, preferably at the close of the boating season, the HMC will hold a meeting to review the Plan and consider the need for any changes.

The HMC should also consider any physical or institutional changes affecting the GHA that may have taken place during the preceding year, including new development, development proposals, physical changes caused by storms and other forces of nature, improvement or degradation in environmental quality and any new plans or policies established by Town, state, or federal agencies.

The HMC should consider any requests for Plan amendments that may be presented by stakeholders with an interest in the GHA, including Town residents, business owners, and private groups and organizations. The HMC should also consider any requests by state and federal agencies, including DEEP and the USACE.

6.2 Plan Amendment

The HMC should pursue amendments to the Plan according to the following procedure.

- a) Prepare recommended changes to the Plan, including any changes in the text, maps, or other elements of the Plan.
- b) Obtain public comments on the proposed changes.
- c) Submit the proposed changes to the BOS for review.
- d) Submit the proposed changes, modified as necessary following review by the BOS, to the USACE for review and DEEP for review and approval.
- e) Make any necessary changes to the Plan document following review of public comments and review of comments from the USACE and DEEP.
- f) Adopt the changes.

- g) Submit the changes to the BOS for approval and then transmittal by the BOS to the RTM for adoption by the Town following a public hearing.

A similar procedure should be followed for any changes to Town ordinances needed to implement provisions of the Plan or amendments to the Plan.

The HMC will not be restricted to any specific time period for making changes to the Plan. If unusual circumstances arise that require modification of the Plan, the HMC may initiate the review and revision process at any time.

6.3 Plan Addendum

As an alternative to rewriting and republishing the Plan document each time the Plan may be amended, the HMC may prepare a Plan Addendum to summarize the significant changes that may have taken place and to include any amendments to the Plan's provisions. The HMC may periodically publish a revised Plan document to incorporate updated descriptions of all relevant conditions that have changed since the Plan was adopted or last amended, as well as any Plan amendments that may have been adopted.

7. Review of actions by the Harbor Master.

Any person aggrieved by a decision or action by the Harbor Master (including, any Deputy Harbor Master appointed by the Governor) may present his or her grievance to the HMC. At a public meeting, the HMC may review the matter and invite the involved parties to present relevant information.

Sec. 15-1 of the Connecticut General Statutes requires the Harbor Master to conduct his or her duties in a manner consistent with the Plan. While the Connecticut General Statutes provide no authority for the HMC to overturn Harbor Master decisions or actions within his/her statutory authority or to act as an appeals board with regard to those decisions or actions the HMC may hear any local concerns that may be expressed with regard to decisions or actions by the Harbor Master. The HMC should consider the consistency of the Harbor Master's conduct with the Plan and attempt to resolve the expressed concerns without usurping the Harbor Master's authority and then, if necessary, bring those concerns to the attention of the BOS for further review and to the appropriate state agency or official for any corrective action that may be necessary.

8. Advisory participation in all Town-supported planning and development initiatives affecting the GHA.

The HMC may provide advisory comments and recommendations to any Town agency initiating a planning, development, or other initiative affecting the real property on, in, or contiguous to the GHA. The HMC may provide information on how the proposed initiative can be planned and implemented for consistency with the Plan and how the initiative may have the most positive impact on the GHA. The HMC's advisory comments should help to avoid, before the proposed initiative is finalized, any potential harbor management issues or conflicts. Another important purpose of the HMC's involvement should be to help

maintain effective cooperation and coordination among all Town agencies with authorities that directly and indirectly affect the GHA.

9. Support and promotion of initiatives to increase public interest and awareness.

The HMC may prepare informational materials for public distribution through printed materials and the Town website, including, but not limited to, an annual boating guide for the Greenwich harbors with information on public boating and access facilities, boating regulations, and safety considerations. Informational materials may be used to highlight the major elements of the Plan; provide information on GHA laws, rules, regulations, and ordinances; promote local services and attractions for visiting boaters; and provide information on other harbor management-related topics.

10. Preparation of recommendations for establishment of harbor fees.

Pursuant to Chapter 7A of the Town Code, the HMC may propose—for approval by the BOS and RTM—a fee schedule for mooring and anchorage permits and any activity within the scope of the Plan. (See the previous sections concerning the BOS and RTM.) Collected fees must be deposited into the Harbor Management Fund and used for maintenance and improvement of the GHA and for necessary expenses for personnel, professional services, and equipment, including a vessel, related directly to the functions of the HMC and the Harbor Master.

To the extent authorized by the Connecticut General Statutes and the Town Code, the HMC may recommend establishment of dock and boat slip fees in the GHA, including fees for use of Town marina facilities managed by the Department of Parks and Recreation. Additional fees should be considered to the extent that such fees would make a significant contribution to maintenance and improvement of the GHA in support of the Plan.

11. Preparation of annual operating and capital budgets.

The HMC's Finance Committee will prepare a proposed annual operating and capital budget for the HMC's consideration and approval. Upon approval, the HMC will submit the budget to the BOS and BET in accordance with the Town's budget process. The budget will include a section reflecting estimated revenues and a section covering requested expenses by project or activity, including requested capital expenditures. The HMC will regularly review the status of its operating and capital budget throughout the year according to Town standards for financial reporting.

The HMC should evaluate other potential sources of funds, in addition to mooring permit fees, to be used for harbor management purposes, and provide recommendations to the BOS and RTM to generate operating and capital funds, including funds for long-term projects for dredging, marine structures, and other waterfront and harbor improvements.

All requests for expenditures from the Harbor Management Account will be submitted by the HMC to the BOS for approval. The HMC will regularly review the status of the Harbor Management Fund and report to the BOS on the use and allocation of all funds from the account as necessary.

12. Maintenance of appropriate information and records pertaining to the GHA and harbor management decisions.

In accordance with applicable Town standards, the HMC will maintain appropriate records of its decisions, including decisions concerning the collection and allocation of harbor management funds, and, in coordination with the Town Clerk, organize and maintain other information pertaining to the GHA. The information, maintained in the Town Hall, should serve as a source of information on existing and historic conditions in the GHA and may be used by the HMC when making decisions pertaining to the GHA.

13. Pursuit of grants for harbor management purposes.

The HMC, in coordination with other Town agencies as necessary, may pursue governmental and private grants to help fund harbor improvement projects, including dredging and public access projects. The Plan provides the basis for a number of projects eligible for state and federal grants, including projects to improve access to the GHA, enhance environmental resources, increase public awareness of the natural values of the GHA, and improve harbor infrastructure.

14. Ongoing study of the GHA to provide useful information for decision-making, necessary Plan modifications, and other harbor management purposes.

Conditions in the GHA, particularly conditions pertaining to uses and activities in the GHA and the institutional framework for managing the GHA, are constantly changing. Some changes will affect the provisions of the Plan. As a result, the HMC will monitor conditions in the GHA for the purpose of identifying any changes that may influence both short- and long-term harbor management decisions and programs. The HMC should also encourage and support scientific studies and other investigations, including investigations by educational institutions and students, which provide useful information for advancing the Town's harbor management goals.

The HMC's continuing investigations should be designed to increase understanding of natural processes and human actions affecting the GHA and to increase understanding of harbor management-related issues and concerns. These continuing investigations should be applied to help provide a solid basis for management decisions and for any modifications of the Plan that may be necessary from time to time

15. Employment of consultants and other assistants, as needed, to assist with implementation of the Plan.

Sec. 22a-113l of the Connecticut General Statutes and Chapter 7A of the Town Code empower the HMC to enter into contracts, retain consultants and other assistants, and receive and expend funds for harbor management purposes, including compensation for expenses and equipment directly related to the function of the HMC and Harbor Master. When hiring consultants and other assistants, the HMC may request an allocation of funds from the Greenwich Harbor Management Fund. Any contracts to be entered into by the HMC shall

be first approved by the BOS and be subject to the Town's purchasing policies and procedures.

16. Provision of recommendations to the Governor for appointment of the Harbor Master and, as needed, Deputy Harbor Master.

The Harbor Master is appointed by the Governor pursuant to the Connecticut General Statutes for a three-year term and until a successor is appointed and qualified. Sec. 15-1 of the General Statutes requires that appointment of a harbor master and deputy harbor master for any municipality with an adopted harbor management plan shall be made by the Governor from a list of not less than three nominees submitted by the municipality's harbor management commission. Accordingly, prior to expiration of the term of service of the Harbor Master, the HMC should provide the Governor with recommendations for appointment to this position. In addition, the HMC may request appointment of a Deputy Harbor Master who would have all of the powers and duties of the Harbor Master and be subject to the control and direction of the Harbor Master. When considering candidates for the positions of Harbor Master and Deputy Harbor Master, the HMC will conduct a properly noticed search for potential candidates and evaluate potential candidates with respect to job qualifications established by the HMC.

17. Outreach to other municipalities to address matters of common interest.

The HMC should establish and maintain cooperative relationships with agencies in other towns, including the Stamford and Port Chester harbor management commissions, to address matters of common interest, including, but not limited to, matters concerning boating safety, mooring administration, public access, and water quality, and to otherwise coordinate harbor management initiatives in the most efficient and coordinated manner.

18. Leadership for addressing water quality issues.

The HMC may provide leadership and coordination as necessary for developing and implementing initiatives to identify and address water quality issues in the GHA. In coordination with other Town, state, and federal agencies, the HMC may assist with the identification of sources of pollution, recommend measures to protect and improve the quality of surface water in the GHA, and pursue increased public awareness of water quality issues and initiatives.

19. Maintenance of a master schedule of activities in the GHA.

To ensure that major in-water special events and any activity expected to significantly affect navigation facilities do not create undue congestion or conflicts, the HMC, in consultation with the Harbor Master and Police Department, will maintain a master schedule of activities in the GHA. All sponsors of major in-water events should notify the HMC in advance of their proposed activity.

OTHER TOWN AGENCIES

Town agencies with authorities and responsibilities affecting the GHA will contribute to advancement of the Plan in the following manner.

1. Provide, for HMC review, proposals affecting the GHA that are submitted to other Town agencies.

In accordance with Section 22a-113p of the Connecticut General Statutes and Sec. 7A-4 of the Town's HMC Ordinance, each Town agency with authority to approve a proposal affecting real property on, in, or contiguous to the GHA will refer the proposal to the HMC for review. The proposals will be provided to the HMC at least 35 days prior to any public hearing on the proposal or, absent a hearing, prior to any final action by the approving Town agency. As required by Sec. 22a-113p of the Connecticut General Statutes, the Town agency authorized to act on the proposal will consider the recommendations of the HMC. A two-thirds vote of all the members of the Town agency authorized to act on the proposal shall be required to approve a proposal that has not received a favorable recommendation from the HMC.

2. Provide, for HMC review, proposals affecting the GHA that are prepared by other Town agencies.

Proposals by other Town agencies affecting the real property on, in, or contiguous to the GHA also should be provided to the HMC for review and comments, including but not limited to, proposals to amend Town plans and regulations and agency proposals for dredging and other construction projects.

3. Implementation of agency responsibilities affecting the GHA in a manner consistent with the Plan and in a manner that advances the Plan.

To the extent practical and permitted by law, Town agencies with harbor management-related authorities should carry out their following responsibilities affecting the GHA in a manner consistent with the Plan and in a manner that contributes to Plan implementation.

- **Department of Parks and Recreation:** Planning, operation, maintenance, and management of waterfront parks, beaches, and other recreational facilities, including the Town's boating facilities; establishment of fees for use of Town boating facilities, including marina boat slips; pump out facilities; breaking ice in Greenwich and Cos Cob harbors as necessary to maintain essential access to Town boating facilities; placement and maintenance of certain non-federal aids to navigation.
- **Board of Parks and Recreation:** Provision of proposals, recommendations, and long-range plans to the Board of Selectmen concerning the Town's water and waterfront recreational facilities, including the Town's boating facilities and beaches.

- **Planning and Zoning Commission and Department:** Implementation of Town land-use authorities affecting the GHA, including: preparation and adoption of the POCD; adoption, amendment, and enforcement of the Town's Building Zone Regulations; including those affecting water dependent activities and business; review and regulation of municipal improvement projects; implementation of coastal site plan review requirements; and coordination of Town agency review of development proposals.
- **Conservation Commission:** Implementation of Town conservation authorities affecting the GHA, including: provision of recommendations to appropriate agencies concerning water and waterfront development proposals; planning for use of waterfront open space areas; and promotion of watershed planning initiatives to protect water quality in the GHA.
- **Inland Wetlands and Watercourses Agency:** Implementation of Town wetland protection authorities affecting the GHA, including regulatory authorities affecting development in the watersheds draining into the GHA.
- **Shellfish Commission:** Management and protection of shellfish resources in the GHA.
- **Police Department:** Enforcement of Town and state boating laws, regulations, and ordinances, including regulations established by the Board of Selectmen; coordination of emergency response activities with the Fire Department, DEEP, U.S. Coast Guard, and municipalities with jurisdictions adjoining the GHA; enforcement of Town shellfishing regulations; assistance for removal of in-water debris creating a hazard or obstruction to navigation.
- **Fire Department:** Coordination of emergency response activities, including response to oil and fuel spills, with the Police Department, Harbor Master, DEEP, U.S. Coast Guard, and municipalities with jurisdictions adjoining the GHA.
- **Department of Public Works:** Construction, operation, maintenance, and repair of all storm water and wastewater infrastructure of the Town, including collection and treatment facilities.
- **Health Department:** Testing of water quality and closing of shellfish beds and beach swimming areas as necessary to protect public health.

STATE OF CONNECTICUT HARBOR MASTER FOR GREENWICH

The Harbor Master is appointed by the Governor of Connecticut for a three-year term and is responsible for the general care and supervision of the GHA. Principal authorities of the Harbor Master are included in Sections 15-1 through 15-9 and other sections of the Connecticut General Statutes. In addition, Special Legislative Act 288 establishes responsibilities of the Harbor Master for advising and reporting to the Board of Selectmen. The Harbor Master will have the following responsibilities for implementing the Plan.

1. Performance of all duties in a manner consistent with the Plan.

Sec. 15-1 of the Connecticut General Statutes requires that “harbor masters or deputy harbor masters shall exercise their duties in a manner consistent with any [harbor management] plan adopted pursuant to Sec. 22a-113m for a harbor over which they have jurisdiction.” Actions of the Harbor Master pursuant to his or her responsibilities established in the Connecticut General Statutes therefore must be consistent with the provisions of the Harbor Management Plan.

In addition, the Harbor Master’s actions must be consistent with any regulations for the operation of vessels established by the BOS, to the extent those regulations do not conflict with the Harbor Master’s responsibilities established in the General Statutes and HMC.

2. Cooperation and coordination with the HMC and assistance to the HMC with implementation of the Plan.

As authorized by Sec. 22a-113k of the Connecticut General Statutes and established by Chapter 7A of the Town Code, the Harbor Master is a nonvoting, ex-officio member of the HMC. When exercising responsibilities for mooring administration and conducting other statutory duties for safe and efficient operation of the GHA, the Harbor Master should work cooperatively with the HMC, and otherwise assist the HMC with implementation of the Plan, and shall exercise his or her duties in a manner consistent with the plan. The Harbor Master should attend the HMC’s monthly meetings, provide a monthly written report of his or her activities to the HMC in advance of the HMC’s monthly meeting, and discuss issues, occurrences, and events pertinent to the business of the HMC as necessary. In addition, the Harbor Master may be asked to attend special meetings that may be held by the HMC to report on his or her activities and address questions raised by the public. The Harbor Master may also be asked to attend meetings of the HMC’s committees and provide assistance to those committees as necessary to address matters affecting safe and efficient operation of the GHA.

3. Implementation of requirements for administration of all mooring locations in the GHA.

The Harbor Master is responsible for: issuing mooring permits and assigning mooring locations, including locations for guest moorings; maintaining records on mooring locations, mooring tackle, moored vessels and owners/operators of moored vessels; oversight of mooring tackle placement and inspection; revoking mooring permits as may be necessary;

and removing mooring tackle, if necessary. All mooring-related activities of the Harbor Master must be consistent with the Plan, relevant sections of the Connecticut General Statutes, and Chapter 7A and any other relevant chapters of the Town Code, and be in accordance with any regulations for mooring and anchoring vessels adopted by the HMC. The HMC will have access to all records of the foregoing activities. As directed by the HMC, issuance of mooring permits and collection of mooring fees may be facilitated through an on-line system established by the HMC.

4. Provision of advisory assistance to the Police Department and other law enforcement authorities, as necessary and appropriate, to maintain safe and efficient operation of the GHA.

While the Harbor Master has no public safety authority, he/she may provide appropriate advisory assistance to Town, state, and federal law enforcement agencies, as needed, to maintain boating and navigation safety in the GHA. The Harbor Master's responsibility in this regard shall be carried out in a manner consistent with all applicable federal, state, and Town laws, regulations, and ordinances, including but not limited to, applicable sections of the Connecticut General Statutes establishing the enforcement-related authorities of State of Connecticut harbor masters.³ The Harbor Master should call upon the Police Department or state or federal law enforcement authorities for assistance in all situations involving potential arrest or confrontation, and otherwise act in accordance with directions provided by duly authorized law enforcement authorities in all law enforcement situations. The Harbor Master should advise the Police Department, DEEP, the USACE, and/or U.S. Coast Guard, as necessary, of any problems concerning enforcement of Town, state, and/or federal laws, regulations, and ordinances affecting the GHA. In addition, the Harbor Master may request assistance from the Police Department when necessary for enforcement of any order by the Harbor Master for the stationing of vessels in the GHA pursuant to the Connecticut General Statutes.

5. Application and interpretation of the Connecticut boating statutes and regulations concerning removal of abandoned and derelict vessels.

Consistent with all applicable Town, state, and/or federal laws, statutes, regulations, and ordinances, the Harbor Master may provide assistance to Town, state, and federal agencies

³ Under the current Sec. 15-154 of the General Statutes, harbor masters are empowered to enforce state boating laws within their jurisdiction, except that harbor masters who are not certified law enforcement officers may not enforce the "boating under the influence" laws. Since no police training is provided to Connecticut harbor masters, the policy of the State of Connecticut, first promulgated by the Connecticut Department of Transportation and now the Connecticut Department of Energy and Environmental Protection, advises harbor masters who have not been certified as law enforcement officers to report violations of law to the local police department or other law enforcement authorities rather than become directly involved with arrests or confrontations with violators.

for implementing certain State of Connecticut boating statutes and regulations as they relate to removal of abandoned vessels, and for communication of these statutes and regulations, as necessary, to the public.

In accordance with Sec. 15-140c of the Connecticut General Statutes as amended by Public Act 14-57 effective January 1, 2015, any vessel “not moored, anchored or made fast to the shore and unattended for a period greater than 24 hours, or left [upon private property] without the consent of said property owner for a period greater than twenty-four hours” shall be presumed abandoned. Acting in coordination with the HMC, Police Department, and other appropriate agencies, the Harbor Master may apply his or her authorities as necessary to implement the provisions of this statute in the GHA.

6. Operation of Harbor Master vessel as available.

The Harbor Master (and Deputy Harbor Master at the direction of the Harbor Master) may operate a Town-provided vessel for the purpose of conducting the Harbor Master’s duties pursuant to the Connecticut General Statutes and Plan. Such vessel will be operated in accordance with all rules and regulations for use adopted by the HMC, all applicable terms and conditions for use and operation of Town property, and appropriately marked and readily identifiable when operated. As available, the Harbor Master vessel should be operated for the purpose of responding to boating and navigation issues in the GHA. The normal period of operation of the Harbor Master vessel should be from April 1 through November 30 during which time the Harbor Master may conduct routine inspections of the GHA. The purpose of those inspections should be to help assure safe and efficient operation of the GHA and compliance with applicable Town and state laws, regulations, and ordinances.

7. Provision of information concerning boating laws, regulations, and ordinances, the Plan, and other harbor management topics to the general public.

The Harbor Master may assist the HMC with provision of information to the general public concerning applicable boating laws, regulations, and ordinances; conditions in the GHA; provisions of the Plan; regulations adopted by the HMC; and other information intended to increase public awareness and otherwise maintain safe and efficient operation of the GHA.

8. Ongoing communication with Town, state, and federal agencies concerning the GHA.

In addition to communication and coordination with the HMC, Police Department, and other Town agencies, the Harbor Master should maintain effective communication and liaison, as necessary, with various divisions and units of DEEP, the USACE, U.S. Coast Guard, and other state and federal agencies with authorities affecting the GHA. The purpose of this communication and liaison should be to address matters affecting the safe and efficient operation of the GHA.

9. Operation and maintenance of cell phone and email communication capabilities.

The Harbor Master, in consultation with the HMC and Police Department, will operate and maintain a cell phone line with voice mail capability and an email address. The Harbor Master's voice mail should provide phone numbers for reporting emergencies. The Harbor Master should keep a monthly record of calls to the Harbor Master's office and may be reimbursed from the Harbor Management Fund for reasonable and documented expenses related to operation and maintenance of the Harbor Master communications system.

10. Review and comment on proposals for dredging, filling, or placement of structures in the GHA.

The Harbor Master's review of applications affecting the GHA should be carried out in coordination with the Harbor Management Review process conducted by the HMC. The Harbor Master may provide comments on those applications to DEEP, the USACE, and other regulatory agencies as appropriate.

11. Provision of assistance to the HMC for preparation of operating budget recommendations.

The Harbor Master should provide data on expenses for personnel and equipment directly related to the function of the Harbor Master and Deputy Harbor Master, including expenses for operation of the Town vessel provided for use by the Harbor Master and Deputy Harbor Master, and other information to the HMC for the purpose of assisting the HMC with preparation of its annual operating budget recommendations.

STATE AND FEDERAL AGENCIES

To the extent permitted by law, state and federal agencies with authorities pertaining to the GHA should carry out their responsibilities in accordance with the provisions of the Plan, and generally cooperate with the HMC to advance the Plan. State and federal agencies may apply their authorities in the following manner to help advance the Plan.

1. Review and approval of the Plan and any future amendments to that Plan.

Sec. 22a-113m of the Connecticut General Statutes specifies the procedure for approval and adoption of the Plan. In accordance with this procedure, the HMC must submit the proposed Plan (and future amendments to the Plan) to the USACE for review, comments, and recommendations. The proposed Plan and any future amendments also must be submitted for approval to the Connecticut Commissioner of Energy and Environmental Protection and Connecticut Port Authority. Upon approval by the Commissioner and Port Authority, the proposed Plan and any future amendments may be adopted by the RTM. (See the previous section on the RTM.)

Any revisions to the Town Code adopted by the RTM and pertaining to the operation of vessels must be submitted to DEEP's Boating Division for review and approval as required by Sec. 15-136 of the General Statutes. Sec. 15-136 of the General Statutes requires that any local ordinance "...respecting the operation of vessels on any body of water within its territorial limits" be submitted to the Commissioner of Energy and Environmental Protection for review and approval. This review is carried out by DEEP's Boating Division. DEEP has sixty days to disapprove any part of the ordinance that it finds to be "...arbitrary, unreasonable, unnecessarily restrictive, inimical to uniformity or inconsistent with..." established state policy regarding administration of boating safety. If DEEP does not disapprove all or part of the proposed ordinance within sixty days, the ordinance will take effect upon publication and posting as required by Sec. 15-138 of the General Statutes.

2. Inclusion of the HMC's comments and recommendations into coastal permitting decisions.

Proposals for filling of aquatic areas, dredging, placement of structures, and other work in or otherwise affecting the GHA are subject to state and federal regulatory programs administered by DEEP and the USACE, respectively, and cannot be implemented without the required authorization. Coastal permitting requirements established by DEEP require applicants to consult with and notify the HMC during the permitting process. The HMC will review proposals affecting the GHA, consider their consistency with the Plan and any amendments or regulations adopted pursuant thereto, and provide appropriate comments and recommendations to DEEP and the USACE.

In their review and decision-making processes, DEEP and the USACE should consider the HMC's consistency findings and recommendations to the maximum extent permissible in accordance with state statutory policies and federal law. Pursuant to Sec. 22a-113n of the Connecticut General Statutes, a recommendation of the HMC that is consistent with and adequately supported by the Plan with respect to a proposed project shall be binding on any official of the State of Connecticut when making regulatory decisions or undertaking or sponsoring development affecting the GHA, unless such official shows cause why a different action should be taken.

The HMC should be provided with a copy of any authorization issued by DEEP or the USACE for filling aquatic areas, dredging, or placement of structures in the GHA.

3. Coordination and cooperation with the HMC for implementation of the Plan.

State and federal agencies should recognize the Plan as the Town's principal guide (in coordination with the POCD) for safe and beneficial use of the GHA and protection of coastal resources and environmental quality in the GHA. DEEP, the USACE, and other state and federal agencies should apply their planning as well as regulatory programs in a manner to assist the HMC with Plan implementation. To the extent possible, the agencies should provide information and technical assistance to the HMC for the purpose of addressing matters affecting safe and beneficial use off the GHA, protection of environmental quality and coastal resources in the GHA, and other public purposes consistent with the Plan. State and federal grant programs should be used to help implement special projects

to achieve the Town's harbor management goals. In addition, proposals affecting the GHA prepared by state and federal agencies should be designed for consistency with the Plan and be provided to the HMC for review and comment.

PRIVATE INDIVIDUALS AND ORGANIZATIONS

Private individuals and organizations may also contribute to implementation of the Plan. Town residents, waterfront property owners, operators of water-dependent facilities, and others must comply with Town, state, and federal laws, regulations and ordinances pertaining to use of the GHA. In addition, there are a number of voluntary (non-regulatory) initiatives for managing and enhancing the GHA. Concerned citizens and organizations may contribute to implementation of the Plan through the following actions.