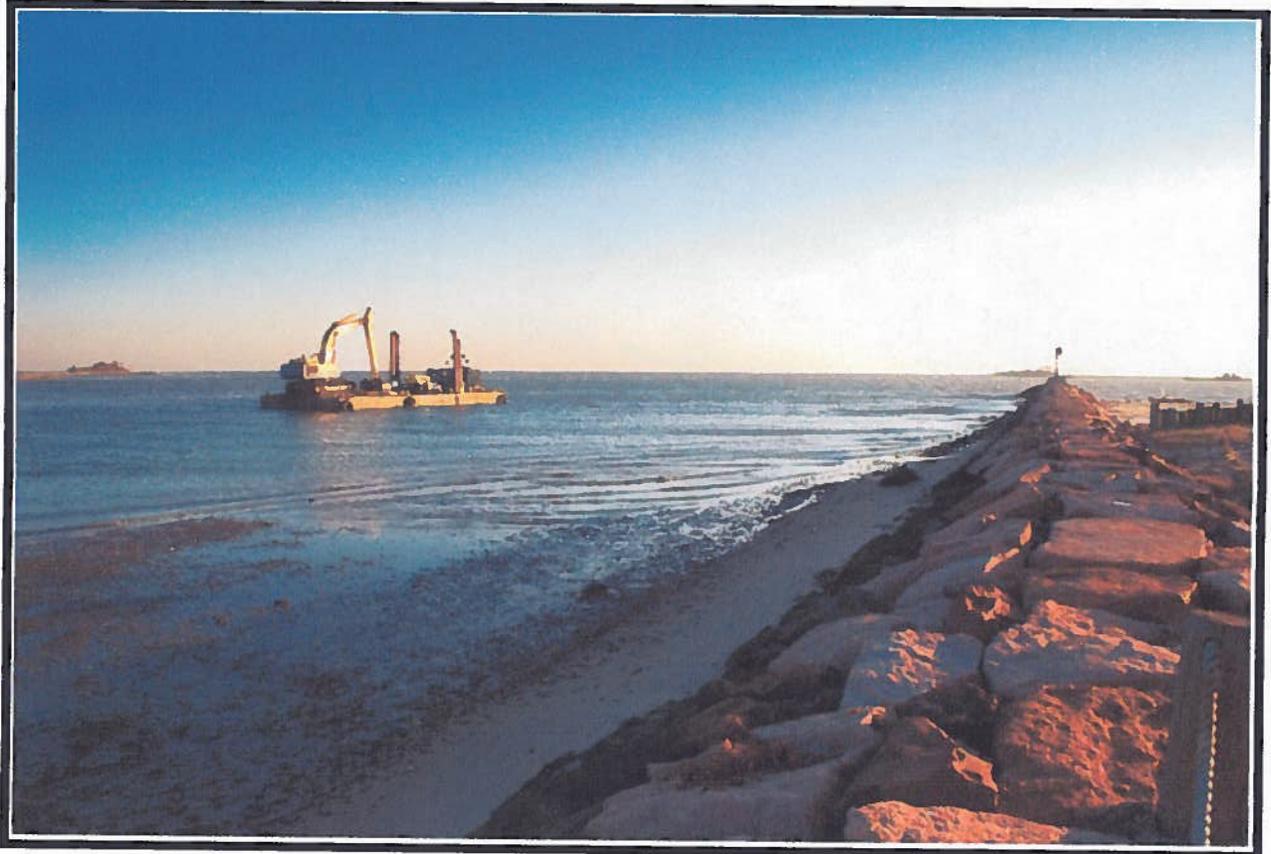


WESTBROOK HARBOR MANAGEMENT PLAN



**Westbrook Harbor Management Commission
866 Boston Post Road
Westbrook, CT 06498
May, 2014**

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Authorization

The municipalities in Connecticut, including the Town of Westbrook, are authorized by the State of Connecticut Harbor Management Act codified in Sections 22a-113k through 113t CGS to establish a Harbor Management Commission:

From the Connecticut General Statutes, Sec 22a-113m:

"Harbor Management Plan... Approval: The commission in consultation with the commissioners of environmental protection and transportation, shall prepare, or cause to be prepared, a management plan for the most desirable use of the harbor for recreation, commercial, industrial, and other purposes... The plan shall provide for the preservation and use of the coastal resources of the harbor..."

It is generally understood that the coastal regulatory programs of the Connecticut Department of Energy and Environmental Protection's Office of Long Island Sound Programs, including authorization of docks, moorings, dredging and other permitted activities, must be such that they can address extremely variable conditions along the entire Connecticut shoreline. Planning initiatives developed at the municipal level tailored to consider unique uses and coastal, scenic, and cultural resources of an individual town can more precisely and effectively guide state permitting analyses and decisions. This Harbor Management Plan for the Town of Westbrook has been developed from, and is based on, important local planning initiatives.

In response to increasing and competing demands for the use and development of the waters and coastal shoreline of the Town of Westbrook, the Harbor Management Commission has made the decision to prepare a

Harbor Management Plan which will address a wide range of water-related issues for the entire Westbrook shoreline including:

- a. Recreational and commercial boating, fishing and shellfishing.
- b. Flood and erosion hazards, including areas subject to high-velocity waves.
- c. Industrial and commercial water-dependent uses.
- d. Water-dependent recreational and educational uses.
- e. Water quality and public health.
- f. Public access.
- g. Natural resources conservation including: tidal wetlands, estuaries, beaches, dunes, intertidal flats, escarpments, fish and shellfish resources, and rocky shores.

Introduction and Plan Overview

The history of Westbrook is connected to the origins of the Saybrook Colony in 1635. Following the sale of what was originally a British settlement to the Connecticut Colony in 1644, the area encompassing the colony was eventually separated into several "quarters". Westbrook, originally settled in 1648, was known as Pochoug – or "Patchogue" - which was an Indian word meaning "at the confluence of two rivers" – the Pochoug and the Menunketesuck. Pochoug was renamed "Westbrook" in 1810 and was incorporated as a separate town in 1840, both by separate Acts of the Connecticut General Assembly. During the late 18th and much of the 19th century, shipbuilding was the primary industry in Westbrook until the age of the steamship and the railroad as well as the manufacture of staves and heads for use in hogshead barrels used for shipping to the West Indies.

As suggested by the naming of the area by the Indian name "Pochoug" and by its history of connection to shipping, Westbrook's identity has always been connected to its waterways. Today, much of Westbrook's economy is connected to the recreational boating industry supported by the numerous marinas, yacht clubs and boat yards located on the shores of the Patchogue and Menunketesuck Rivers and the shoreline of Long Island Sound. In fact, the number of boats registered in Westbrook waters is only second to the City of Norwalk in the State of Connecticut. Presently, the Town of Westbrook is home to 12 separate facilities providing slips for approximately 1900 vessels. With approximately 175 to 200 moorings, the town currently is home to over 2,000 vessels, not including those tied to individual private residential docks on the Patchogue and Menunketesuck Rivers. Repair and service shops that accommodate the boating public total 14; retail and brokerage services for boats total 14 as well. Westbrook's many restaurants provide dining services for boaters and other vacationers. A number of educational and charter fishing services operate out of Westbrook as well.

The recognition of the importance of Westbrook's harbors to town and regional economies is also reflected in the Federal government's recent dedication of approximately \$1.4 million dollars in 2012 to the dredging of the Federal channels from the mouth of the Patchogue and Menunketesuck Rivers at Long Island Sound up to the Route 1 bridges over the two waterways. In addition to that funding, the State of Connecticut provided an additional \$700,000 to the project. Due to the spending of significant tourism dollars associated with recreational boating, Westbrook enjoys robust hospitality and restaurant industries that take advantage of full-time residents as well as summer residents and visitors. Westbrook has six different bed & breakfast operations that cater to out-of-town visitors.

Numerous points of public access, both areas adjacent to the waterfront as well as locations of direct access to the shore, are found along the shoreline in Westbrook, but many are limited when it comes to unrestricted public access. The 3,400 linear foot, 7-acre Westbrook Town Beach is free to use but fees are charged for non-resident parking. To the east of Town Beach is the 1.5 acre Middle Beach park that is open for access but only has limited facilities for parking. Although access to the 680 linear feet of shoreline on the Patchogue River adjacent to the Mulvey Municipal Center is limited at present, this site provides a potential for car-top small boat access and fishing opportunities where sufficient public parking exists. There are numerous town rights-of-way that provide points of pedestrian access to the beach (which is public waterward of the Mean High Water line), although there is some question regarding title and the practicality of access for a few of them. Salt Island is owned by the Town of Westbrook but is only accessible by boat, swimming or, at times, walking at low tide. In addition, residents *and* nonresidents can park at the Mulvey Center on Route 1 and walk to the town beach. The Hammock Point condominiums off Hammock Road also include a point of public access as well.

Public accessibility to the waterfront on the Patchogue River is provided first by the Town Dock located at the end of Hammock Road South just downriver from Harry's Marine. In addition, there are five boat ramps located within the town's coastal boundary. Four of the five are private (Pier 76, Wetmore Marine, Marshview Marine, and Dick's Marine) but allow public use for a \$20 fee. The fifth is the town-owned Kirtland Landing boat ramp is located adjacent to the Route 145 bridge over the Menunketesuck River which is available for no fee. Only small boats can be launched at this latter upriver location. A potential location for additional public access, likely in the form of a small floating dock and ramp, is on the Patchogue River behind the Mulvey Municipal Center on the Boston Post Road.

For a local economy which is significantly based upon summer tourism and the recreational boating industry, the environmental quality of Westbrook waters and its shorelines is of paramount importance. Westbrook is blessed with a significant array of coastal natural resources including Long Island Sound and the Patchogue and Menunketesuck Rivers. Coastal resources defined by the Connecticut Coastal Management Act (Sections 22a-90 through 112 CGS) and located within Westbrook include beaches and dunes, coastal hazard areas, coastal waters and estuarine embayments, tidal and freshwater wetlands and watercourses, intertidal flats, islands, rocky shorefronts, shellfish concentration areas, submerged aquatic vegetations (SAVs) and shorelands. Through the Connecticut Coastal Management Act and the various regulations and codes employed within Westbrook, the Town oversees and manages those coastal resources for the benefit of its citizens and wildlife and the thousands of visitors which come to Westbrook each year.

In addition to the aforementioned coastal resources, Westbrook is the home of the Salt Meadow Unit of the Stewart B. McKinney National Wildlife Refuge, which is owned by the U.S. Fish and Wildlife Service (USFWS) with the Refuge headquarters being located at the Westbrook site. The refuge, occupied by several parcels serves both the resource preservation and public access requirements of the Harbor Management Act and the Connecticut Coastal Management Act in that its preserved acreage is open to the public year-round, except for certain nesting periods. Numerous hiking trails provide scenic views, wildlife observation and paddle craft access to the Menunketesuck River via Gatchen Creek.

As Westbrook and the Westbrook Harbor Management Commission move further into the 21st century, the harbors and coastal waters of Westbrook will continue to support a robust tourism industry that is led by recreational boating and the services provided by the recreational boating, hospitality and restaurant businesses. To sustain those industries and the benefits they provide, it is incumbent upon the Commission to provide long-range planning that includes both preservation and protection of the natural resources of the town and the ability for growth in the tourism sector of the Westbrook economy, including recreational boating. Active involvement from Westbrook citizens and Town government working in coordination and in partnership with State and Federal agencies, private organizations, waterfront property owners and all other stakeholders will ensure successful implementation of the Harbor Management Plan.

What is a Harbor Management Plan?

Control and regulation within municipal waters of Connecticut is typically shared between federal, state and local government with each level of government having its own pre-determined objectives. Because the objectives and authority of these government entities are not always the same, their respective management objectives will be divergent as well. This, in turn, creates uncertainty regarding authority and responsibility over management of municipal navigable waters. In addition, the federal, state, and local governments routinely find themselves facing complex issues with little information available to assist them in making these site-specific decisions.

Although a town's Municipal Coastal Program (MCP) and the coastal site plan review process are intended to be used to manage development in close proximity to the shoreline, traditional comprehensive land use planning using those tools can at times miss adequate consideration of the administrative changes required to implement land use plans beyond the shoreline (waterward of the Mean High Water line). And yet it is the land use controls, adopted through the comprehensive plan (zoning regulation adoption) process, that can allow or disallow waterfront activities without sufficient consideration for their impact on water surface availability, local maritime industries, or the carrying capacity of the local, natural shoreline habitats.

It is the objective of harbor management planning to evaluate the effect of existing, and often uncoordinated, municipal, state, and federal regulatory programs in light of the unique constraints existing at a specific waterfront, to evaluate potential problems, identify local maritime goals and objectives, and then to create an integrated management framework designed to accomplish the stated goals and objectives through coordination of local, state, and federal government agencies. From the standpoint of the use of the waters of Westbrook Harbor, it is the objective of the Harbor Management Plan to coordinate the differing agencies and authorities so as to guide the use and development of Westbrook Harbor in a way that will be most beneficial to its residents.

A Harbor Management Plan is not intended to replace the municipal Comprehensive Plan (local zoning regulations) or the Municipal Coastal Program. Rather, it is intended to offer guidance so that navigable waterways are considered and included in land use/resource management plans, programs and decisions and to promote a greater degree of coordination between the various regulatory agencies active in managing Westbrook's waterfront.

Benefits of a Harbor Management Plan

There are clear and substantial benefits to be gained by this community through enacting this Plan:

- The harbor is for everyone and future generations to use and enjoy. The Plan establishes a guide to preserve and enhance this great asset. The Plan strives to preserve and protect the local environment by working closely with State and local bodies, including the Westbrook Shellfish Commission, Zoning Commission, Planning Commission and Conservation Commission and other affected land use boards as well as the CT DEEP (Department of Energy and Environmental Protection).
- For the first time, the Plan will give the Westbrook Harbor Management Commission a strong voice in matters concerning proposed uses within and adjacent to the harbor. The Harbor Management Commission will be empowered to review all proposed development on property contiguous to the harbor for consistency with their adopted Plan. Furthermore, State agency decisions affecting the harbor must be consistent with the Plan's policies and with the recommendations of the Westbrook Harbor Management Commission, unless the State agency shows sufficient cause why its decision should differ from the findings of the Commission.
- The Plan will enable the Town to better manage the acquisition and allocation of moorings; and to ensure for future generations equal access to this valuable but limited resource by charging a mooring fee that can be dedicated to harbor issues.
- The Plan will provide for a much safer harbor through improved management of specifications for mooring tackle and policies directed toward better management of vessel speeds.
- The Plan will make possible the appointment of locally-chosen Harbor Masters, and provide substantial assistance in the performance of their duties. State Statutes provide that if a Harbor Management Plan has been adopted by a municipality, the Governor must make the appointment from a list of not less than three persons submitted by the Harbor Management Commission. Also decisions by the Harbor Master or a state designee must be consistent with the Plan, a safeguard for the people of the Town.

Historic Management of Westbrook Harbor Waters by the Harbor Commission

In 1984, the Town of Westbrook recognized the need for taking an active role in the management of the harbors and waters of the town. After considering numerous approaches, the Westbrook Harbor Management Commission decided to adopt a series of what are referred to as "harbor and channel lines" approved by the then-DEP and locally adopted pursuant to Section 7-147 (presently codified under Section 22a-360 CGS) of the Connecticut General Statutes. The purpose of the harbor and channel lines was to establish maximum encroachment limits for in-water structures and moorings and to provide "orderly development and equitable use of the town's waterfront and tidal and coastal waters in and abutting the town." Of most concern was how to retain open navigation within the Patchogue and Menunketesuck Rivers, especially to the north of Route 1 where the channels narrow significantly to less than 50 feet in places. Although the harbor and channel lines have provided adequate management through the intervening 25 plus years since their adoption, the Commission is finding inconsistencies in some of the mapped lines for the Patchogue River north of the Route 1 "Singing Bridge" when compared to the actual river channel and shoreline locations. Due to the binding nature of the DEP-approved channel lines, such inconsistencies result in the requirement for a DEEP public hearing where the harbor line doesn't conform to the actual channel location. The required public hearing lengthens what could be a much simpler review process. In addition, because of the partnership that is afforded between a municipality and the Connecticut Department of Energy and Environmental Protection through a Harbor Management Plan adopted pursuant to the Connecticut Harbor Management Act (Sections 22a-113k through 22a-113t CGS), the Commission has determined that Westbrook waters can only be properly managed through such a local-state partnership and through the adoption of a Harbor Management Plan.

As for the existing harbor and channel lines used for regulatory purposes in Westbrook waters, it has been found by the Commission that management using that tool will be upgraded with the more specific site-by-site review of structure encroachment guided by the policies, objectives and goals of this Plan as well as through new tools adopted into the Westbrook Town Ordinances. The Commission has also determined that information regarding the history of use of the harbor and channel lines and maps referencing the lines will continue to be useful tools for public understanding of the historical issues surrounding protection of navigational rights in Westbrook waters, especially to the north of Route 1 in the Patchogue and Menunketesuck Rivers. **As a result, with the adoption of this Plan, the 1984 harbor and channel lines north of Route 1 in the two rivers and included on the two maps included as Appendix B of this Plan are superseded by the process adopted in this Harbor Management Plan and shown in Appendix A of this Plan. All existing 1984 harbor and channel lines used for regulatory purposes SOUTH of Route 1 as shown on maps entitled "Town of Westbrook, Connecticut Establishment of Harbor Lines Dated: 3/13/84, Revised 8/1/84 Drawings No. 1 and 2 (now known as maps #1302 and #13030), David B. Mylchreest, revised 1/31/01 as set forth on a certain map entitled "Amendment to Harbor Lines, Carlson's Landing-Patchogue River-Westbrook, CT" Kilmartin-Ragan Associates Inc., Surveyors, together with a six page definitive document as hereto set forth entitled "Town of Westbrook Harbor Development Lines" will continue to be used for regulatory purposes in those respective sections of the Patchogue and Menunketesuck Rivers. The areas of the Menunketesuck and Patchogue Rivers located SOUTH of Route 1 to the mouth of the rivers at Long Island Sound are referred to in this Plan as "Area B" while the areas of the two rivers NORTH of Route 1 are referred to as "Area C" (Menunketesuck River) and "Area D" (Patchogue River).**

Jurisdictions of Federal, State and Local Agencies and Departments

Several federal, state, and local agencies have jurisdiction over various activities in and adjacent to the harbor. These authorities perform different, but often overlapping functions in the regulation of harbor activities. The key authorities with administrative control or interest in Westbrook harbor waters include:

Federal Level

U.S. Army Corps of Engineers

U.S. Coast Guard

National Marine Fisheries

National Oceanographic and Air Administration

State Level

Department of Agriculture, Aquaculture Division

Department of Energy and Environmental Protection, Law Enforcement Unit; Marine Fisheries Unit; Marine Patrol Division; Office of Long Island Sound Programs (OLISP); Water Management Bureau, Wildlife Division.

Department of Health Services; Department of Transportation; Harbor Master.

Local Level

Board of Selectmen; Conservation Commission; Director of Health; Fire Department;

Harbor Management Commission; Inland Wetlands and Watercourses Commission; Marine Police;

Parks and Recreation Department; the Planning Commission, the Zoning Commission; Zoning Board of Appeals; Department of Public Works.

U.S. Army Corps of Engineers

The Corps regulates work in (or which affects) navigable waters under Section 10 of the Rivers and Harbors act of 1899. In New England, for purposes of Section 10, navigable waters are essentially those subject to the ebb and flow of the tide seaward of the high tide line. The Corps also regulates the discharge of dredged or fill material into all waters of the U.S. under Section 404 of the Clean Water Act.

U.S. Coast Guard

The Coast Guard is concerned with navigational safety within and near Westbrook Harbor. This is accomplished primarily through the placement and maintenance of Aids to Navigational buoys and channel markers. As a means of economy and agency streamlining, the Coast Guard has been reviewing all its navigational aids within Long Island Sound and along the Atlantic Seaboard.

Connecticut DEEP - Office of Long Island Sound Programs (OLISP)

OLISP is responsible for the administration and oversight of the State's Coastal Management Program, which was effective in January 1980, based on the Connecticut Coastal Management Act of 1979 (CGS Sections 22a-90 through 22a-113j). OLISP oversees consistency of federal, state and municipal plans and regulatory actions, the development of local coastal management plans and the protection of critical natural resources. OLISP is also responsible for coordination/review of Harbor Management Plans and amendments to them.

OLISP assumed in-water permitting responsibilities from the old Water Resources Unit of DEP in

July, 1988. All activity below the coastal jurisdiction line (Public Act 12-101) is regulated pursuant to the Structures/Dredging/Fill Act (Sec. 22A 359 - 363, as amended) and/or the Tidal Wetlands Act (CGS Sections 22a – 28 through 22a - 35).

Department of Energy and Environmental Protection (DEEP) Planning and Water Quality Standards

The Planning and Water Quality Standards Unit within the Bureau of Water Protection and Land Reuse administers the NPDES (National Pollution Discharge Elimination Schedule) water pollution permit program, various sewage control programs, and advises OLISP in the development of state dredge disposal policy. The unit also establishes the state's water quality classifications and is responsible for the marine sanitation discharge law.

Connecticut Department of Transportation (ConnDOT)

In Connecticut, the Commissioner of Transportation is vested with the responsibility for the overall supervision of the state's harbors and navigable waterways. Under state law, the Commissioner may delegate this responsibility to a Harbormaster who works with a local Harbor Commission. The Harbormaster is appointed by the Governor and is subject to the control and direction of the Commissioner of the Department of Transportation. The administrative jurisdiction of both the Harbormaster and Harbor Commission include the navigable waters of the municipality shoreward to the mean high water mark; together, they manage the harbor within a framework established by a state-approved and locally-adopted harbor management plan.

Westbrook Harbor Management Commission

The Town of Westbrook has four regulatory agencies responsible for managing the growth in and around the Harbor area and Westbrook waters.

The Westbrook Zoning and Westbrook Planning Commissions are responsible for enforcing and updating the Town's zoning regulations and for reviewing upland development proposals within Westbrook's coastal boundary to insure consistency with the state Coastal Management Act pursuant to the Act's coastal site plan review requirements.

The Harbor Management Commission is a nine member commission (7 regular, 2 alternates) each appointed by the Board of Selectmen.

1. Area of Authority

The area of jurisdiction of the Westbrook Harbor Management Commission is hereby established as described below and as shown on the map entitled "Harbor Management Area" (Figure 1):

The area of jurisdiction of the Westbrook Harbor Management Commission exists from a point 1,000 feet due south of the mean high water line at the municipal boundary between Westbrook and Old Saybrook; thence, west southwesterly to a point 1,000 feet due south of the southern tip of Menunketesuck Island; thence south westerly to a point 1,000 feet due south of the southernmost tip of Duck Island; thence west northwest to the western breakwater light; thence northerly to the intersection of the mean high water line at the Westbrook and Clinton municipal line. The jurisdiction line is established in coordination with a similar demarcation utilized by the Westbrook Shellfish Commission.

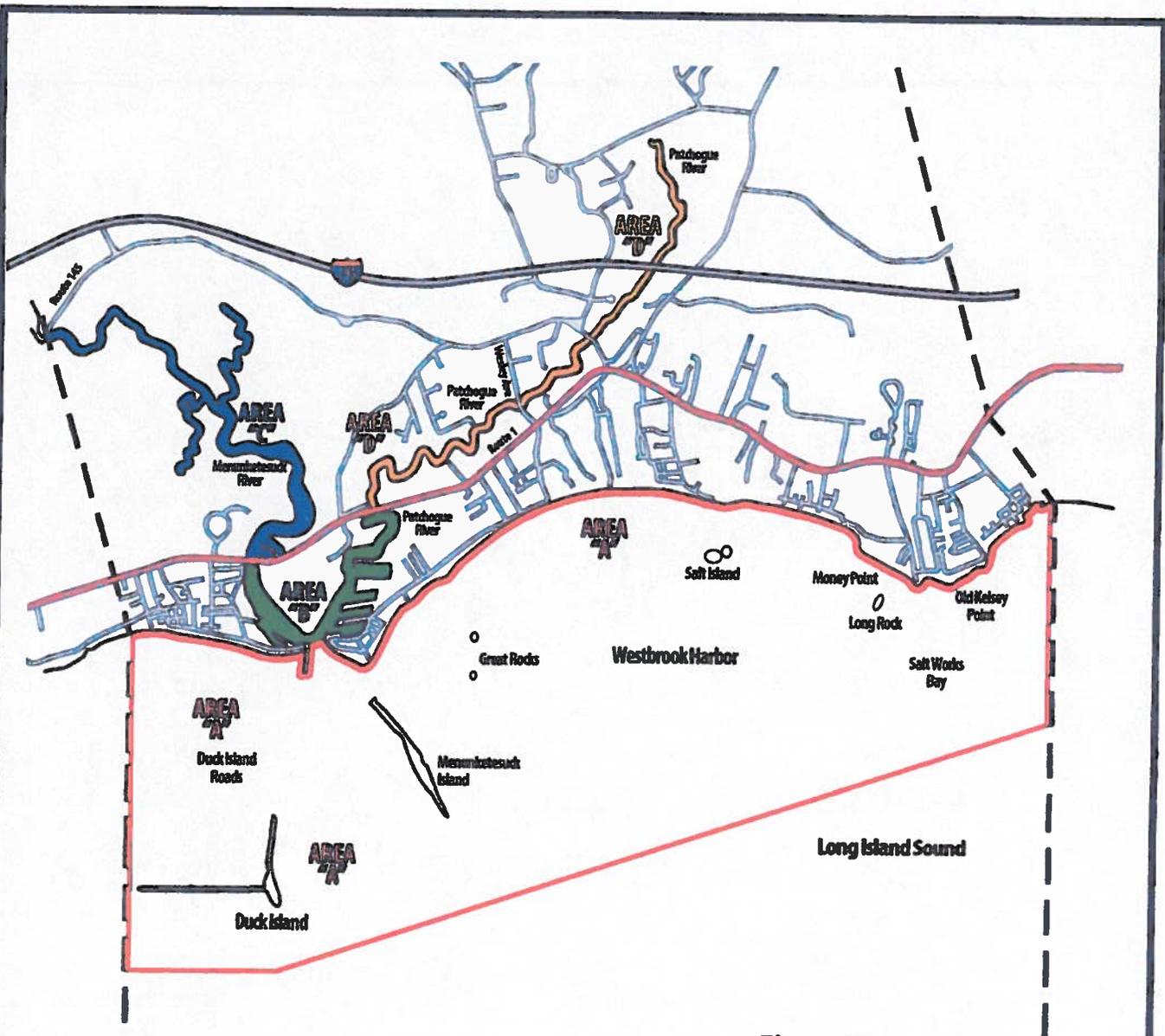
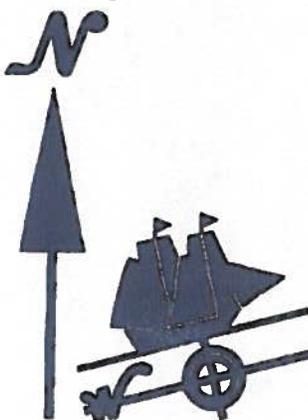


Figure 1
Harbor Management Area
(to be used for Planning Purposes Only)

- AREA "A"** - Long Island Sound
- AREA "B"** - Lower Patchogue and Menunketesuck Rivers, south of Route 1
- AREA "C"** - Upper Menunketesuck River, Route 1 to Route 145
- AREA "D"** - Upper Patchogue River, Route 1 and north



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Rev. 2/15/13

Consistency Review Process

The heart of the authority of a Harbor Management Commission in Connecticut is the Consistency Review Process authorized under Section 22a-113p of the Connecticut General Statutes. The adoption of the Harbor Management Plan (HMP) and the establishment of a HMP Consistency Review Process will enable the state Coastal Management Act's consistency provisions to be more efficiently and effectively addressed. It will also provide a more comprehensive and coordinated review of proposed projects by local management authorities.

The Federal Coastal Zone Management Act provides that any project permitted, funded, or undertaken by a federal agency is to be consistent with Connecticut's Coastal Management Program (CCMP). These provisions are pertinent to adoption and implementation of the Harbor Management Plan in two ways.

First, if the Army Corps of Engineers (ACOE) issues a general permit for activities consistent with the Harbor Management Plan then only a single federal consistency determination would be required by CCMP rather than the issuance of a consistency determination for each individual project that would normally be required of an ACOE permit.

Second, if the Harbor Management Plan is submitted to the U.S. Army Corps of Engineers and approved as a routine program improvement and forwarded to the Coastal Management Program, then any activity not provided for within the framework of the general permit but proposed within the boundary of the Harbor Management Plan and that is otherwise permitted, funded, or undertaken by any federal agency would be required to be consistent, to the maximum extent possible, with the provisions of the Harbor Management Plan.

The adoption of a Harbor Management Plan and establishment of the Plan Consistency Review Process would also enable local agencies to more effectively implement municipal plans adopted pursuant to CCMP since recommendations will be made by the Harbor Management Commission to the relevant local land use commissions and boards regarding the potential impacts of proposed projects on the Town's harbor and the use thereof.

The recommendations of the Harbor Management Commission will also provide guidance to the Commissioner of the Connecticut Department of Energy and Environmental Protection and assist in execution of his responsibilities regarding the coordination of State regulatory approval and the implementation of the Harbor Management Plan. This will both ensure that local interests are understood and considered by the Commissioner in his deliberations.

To ensure that the review of proposed projects at the state and local level are closely coordinated and carried out in a timely manner, the following procedures coordinate the actions of the Harbor Management Commission with those of state and local agencies.

As provided for in Section 22a-113p of the Harbor Management Act, whenever a project or request for approval of an activity is proposed which affects the real property on, in, or contiguous to Westbrook's waterfront by any of the various boards, commissions, or committees representing Westbrook's Board of Selectmen, the Harbor Management Commission shall be notified in writing of such proposed projects and activities at least 35 days prior to hearing on the proposed project and if no hearing is held, 35 days prior to final action being taken on the project. If the Harbor Management Commission does not submit recommendations on the proposed project prior to final action on the project, its' approval of the project is to be assumed. Copies of proposed project plans and drawings must be requested by

the Harbor Management Commission when additional information is required. Such concurrent review will enable the Commission to provide relevant recommendations to the pertinent state or local management authority without significantly increasing the time of review for a proposed project.

In addition, a step toward establishing coordination and clarity between the affected state (OLISP) and municipal (HMC and P & Z) agencies would be to draft a Memorandum of Understanding or other written agreement specifying the procedures to be followed by the various agency staff in the review of waterfront related proposals. Such an agreement would allow the different agencies to know what the process will be for this new review process within the effected agencies.

Existing Management Process in the Town of Westbrook

Connecticut statutes pertaining to zoning, land use controls and coastal zone management, provide local planning and zoning commissions with the greatest roles and responsibilities in managing coastal resources at the town level. All of Westbrook's boards and commissions, however, have the capacity to help protect the Town's coastal resources, through their own planning and/or maintenance responsibilities as well as through town-wide planning efforts. Westbrook shares regulatory responsibilities with state and federal agencies. Generally, when an agency has regulatory control, they also have enforcement powers.

The Town can also look outside its borders for planning assistance. The Lower CT River Valley Council of Governments (formerly the Connecticut River Estuary Regional Planning Agency) provides assistance in reviewing development applications. The Connecticut Environmental Review Team (formerly Kings Mark Environmental Review Team) provides assistance in evaluating potential impacts on natural resources from development proposals. The CTDEEP Office of Long Island Sound Programs (OLISP) provides training to local officials and can provide comments and expert testimony on projects within the CAM boundary. This assistance is voluntary by these agencies, upon request by the town, and is purely advisory in nature.

State and federal entities also regulate coastal resources, but in a more narrow role. For the State, the OLISP has jurisdiction over all areas waterward of the coastal jurisdiction line including tidal wetlands and coastal waters and the Department of Agriculture/ Bureau of Aquaculture regulates shellfishing. There are three federal agencies that also have clearly defined roles: the U.S. Army Corps of Engineers (ACOE), the Federal Emergency Management Agency (FEMA), and the U.S. Coast Guard.

Westbrook Planning Commission

The Planning Commission establishes and enforces subdivision regulations and approves subdivision applications. Plans submitted to the Planning Commission for activities or projects, including subdivisions or re-subdivisions, located fully or partially within the CAM boundary and landward of the mean high water mark are subject to the requirements of the CCMA and Section VI of Westbrook's Subdivision Regulations. The Commission must determine whether or not potential adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities are acceptable (CGS§ 22a-106[a]). The Commission oversees the Municipal Coastal Program and the Plan of Conservation and Development.

Various coastal resources can be protected directly or indirectly through the enforcement of subdivision regulations. In particular, the following requirements are referenced by current subdivision regulations:

- Coastal site plan review
- Erosion and sediment control plans for site disturbance ≥ 1 acre
- Special flood hazard area protection
- Stormwater management (NPDES Phase II)
- Preservation of natural features
- Set-asides of open space

Careful review of a project's Municipal Coastal Site Plan Review form will assist in making determinations of potential adverse impacts.

Westbrook Zoning Commission and Zoning Enforcement Officer

The Zoning Commission administers zoning provisions through town-wide zoning regulations. Site plans submitted to the Zoning Commission for activities or projects, including applications for a special

exception or special permit, located fully or partially within the CAM boundary and landward of the mean high water mark, are considered coastal site plans and are subject to the requirements of the CCMA. The Commission makes a determination of the conformity of a proposed building, use, structure, or shoreline flood and erosion control structure under the provisions of CGS § 22a-105 and 22a-106 and Section 11.00.00 of the Town's Zoning Regulations (Coastal Site Plan Review and process). The Commission must determine whether or not potential adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities are acceptable (CGS§ 22a-106[a]).

The ZEO carries out enforcement actions in response to zoning violations. The Town is given explicit authority, under the CCMA (CGS §22a-108), to exercise all enforcement remedies legally available to it for any non-exempt activity within the CAM boundary that has not received a lawful approval from the Planning or Zoning Commissions or for violations of terms or conditions of a coastal site plan approval. Such activities are deemed a public nuisance and the Town is given the authority by statute to require abatement of such nuisances.

Various coastal resources can be protected through the enforcement of zoning provisions. Special protections are currently offered through zoning districts, which include the Coastal Conservation District, Commercial Boating District, Floodplain Overlay Zone district, Water Resource Overlay District. Buffer requirements for all residential, commercial and industrial zones (except Commercial Boating District) provide separation of uses from tidal wetlands.

Careful review of a project's Municipal Coastal Site Plan Review form will assist in making determinations of potential adverse impacts.

Westbrook Zoning Board of Appeals

The ZBA reviews and approves or denies requests for zoning variances. Applications for variances submitted to the ZBA, in accordance with CGS § 8-2 or with any special act, for activities or projects located fully or partially within the CAM boundary and landward of the mean high water mark, are considered coastal site plans and are subject to the requirements of the CCMA. The Board must determine whether or not potential adverse impacts of the proposed activity on both coastal resources and future water-dependent development activities are acceptable (CGS§ 22a-106[a]).

Careful review of a project's Municipal Coastal Site Plan Review form will assist in making such determinations of potential adverse impacts.

Harbor Management Commission and Harbormaster

The Harbor Commission establishes goals and policies for the use of and protection of the Westbrook harbor, including the use of harbor lines and mooring policies. The Harbormaster issues and enforces mooring permits. Coastal waters can be protected through controlling the number and location of boat moorings.

Inland Wetlands and Watercourses Commission (IWWC) and Inland Wetlands Officer

The IWWC establishes and enforces inland wetland regulations. The Inland Wetlands Officer carries out enforcement actions in response to inland wetland violations. The IWWC and Inland Wetlands Officer do not have jurisdiction over activities within tidal wetlands. However, fresh water wetlands and watercourses within the CAM boundary are considered coastal resources. Therefore, the IWWC has a role to protect these coastal resources.

For regulated activities within and adjacent to inland wetlands and watercourses (within the CAM boundary), compliance with IWWC regulations will protect these coastal resources.

Westbrook Conservation Commission

The Conservation Commission can provide guidance for planning, zoning, and town-wide resource management in an advisory capacity. The Commission oversees the Town's open space planning and management functions, and recommends open space acquisition priorities for the Town.

Various coastal resources can be protected directly or indirectly through the Conservation Commission's open space planning and management strategies. In addition, the Commission can make recommendations for priority land acquisitions within the CAM boundary, especially with regards to increasing public access to coastal resources and waters.

Westbrook Shellfish Commission

The Shellfish Commission is responsible for planning, testing, and administration of shellfish grounds. The Shellfish Commission can prepare a Memorandum of Understanding between the local health department and State Department of Agriculture/ bureau of Aquaculture that meets the National Shellfish Sanitation Program standards.

Connecticut Department of Energy and Environmental Protection, Office of Long Island Sound Programs

OLISP oversees CCMA; regulates any activities, including the placement of structures, in tidal wetlands and in coastal waters waterward of the coastal jurisdiction line; and reviews state or federal project consistency with the CCMA. Other Department divisions plan for and regulate discharges to coastal waters, handling/disposal of hazardous materials, and commercial harvest of finfish, lobster, squid and crab. As owner of Duck Island, DEP monitors and enforces the island's Natural Area Preserve protection status.

The primary protection tools of OLISP are the issuance of permits and enforcement of regulated activities. OLISP staff can provide technical assistance and comments for projects within or partially within the CAM boundary. The Land Acquisition Division of CTDEP can acquire land and issue matching grants to the Town for properties within the CAM boundary for the preservation and conservation purposes.

Connecticut Department of Agriculture

The Department of Agriculture is the State's lead agency for aquaculture regulation, development and coordination which is responsible for leasing shellfish grounds, the issuance of aquaculture operations licenses, and the inspection and regulations concerning shellfish licenses. Within the Department is the Bureau of Aquaculture, which posts signs in areas closed to shellfishing, performs studies and environmental investigations, prepares memorandums of understanding for conditional shellfishing areas, reviews applications for shellfish harvest operations, and initiates emergency closures.

The Bureau sets and establishes shellfish growing areas and classifications. Classifications are established to minimize health risks and can restrict the taking and use of shellfish from some areas.

U.S. Army Corps of Engineers

The USACOE regulates activities below mean high water, as well as in tidal and/or inland wetlands. Permit applications go through the CTDEEP unless actions affect 1 acre or more of wetlands. The ACOE maintains the navigational channel, which was congressionally authorized, within the lower Patchogue River.

Section 404 Permitting Program (wetland impacts); Section 10 Rivers and Harbors Act (waters and navigation channels); Connecticut General Programmatic Permit (through DEEP).

Physical Conditions/Harbor Setting

1. General Description

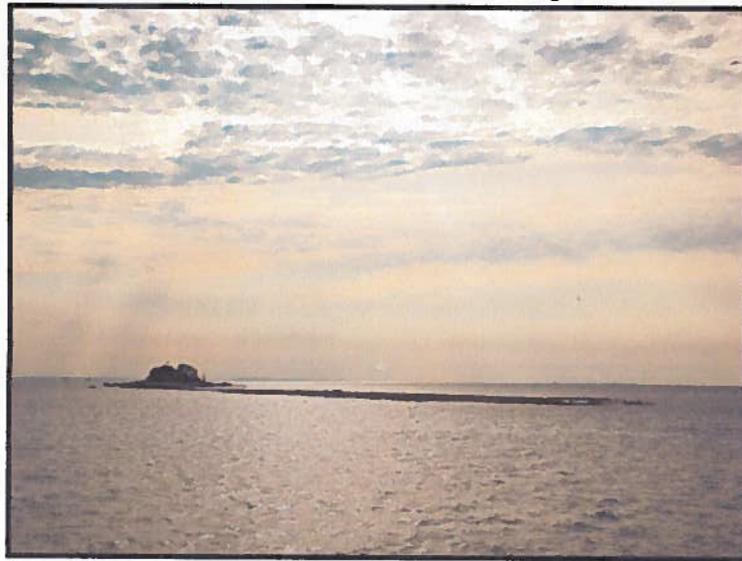
The waters of the Town of Westbrook, including coastal waters and the waters of the Patchogue and Menunketesuck Rivers lie within the coastal boundary as defined by the Connecticut General Statutes Section 22a-94(b) CGS (Figure 2). The Westbrook Harbor Sector, as addressed in this Harbor Management Plan, lies between Chapman Beach/Kelsey Point at the Old Saybrook town line on the east and Grove Beach at the Clinton town line to the west.

The coastline of Westbrook, like adjacent towns, has resulted from the reworking of glacial sand and gravel deposits left after the retreat of the last glacial event over 10,000 years ago. In some areas, beaches have formed along coastal plain areas while in other areas, beaches were formed as spits through longshore drifting of sediments. Chapman Beach, Stannard Beach and Middle Beach front upland areas while Quotonset Beach, West Beach (Westbrook Town Beach) and much of Grove Beach were formed along areas of the shoreline that grew as a result of longshore drift. The Westbrook shoreline includes

two promontories, a bedrock ridge identified as Old Kelsey Point and the sedimentary deposits at the mouths of the Patchogue and Menunketesuck Rivers. Menunketesuck Island, an elongated

sand island formed through the sedimentary processes existing at the river mouths, and Duck Island, a bedrock island from which two breakwaters extend, are located 1,000 and 4,000 feet south of the river mouths, respectively. The extensive tidal marshes located on the Patchogue

and Menunketesuck Rivers extend north of Route 1 and, in some areas, extend over 1,000 feet from the adjacent uplands. A Federal channel within the Patchogue River, which must be dredged periodically, exists south of Route 1. The basins of Westbrook's largest marina, Pilots Point, extend off of the Patchogue River.



Menunketesuck Island, Post- Hurricane Sandy in 2012

2. Existing Harbor Conditions and Areas of Concern

The following discussion outlines existing harbor conditions and areas of concern to address:

Moorings and Other Access Opportunities. At present, facilities in the harbor for both recreational and commercial boating are at or very near capacity. In the Patchogue River, the Harbor Commission oversees 13 private moorings, one transient mooring, and one guest mooring held for the Duck Island Yacht Club. Permits for beach moorings, which total between 75 and 100, have historically been issued by the Westbrook Harbormaster with the program overseen by the Harbor Commission. At present, there is no fee for the beach moorings, but that may change in the future if the need

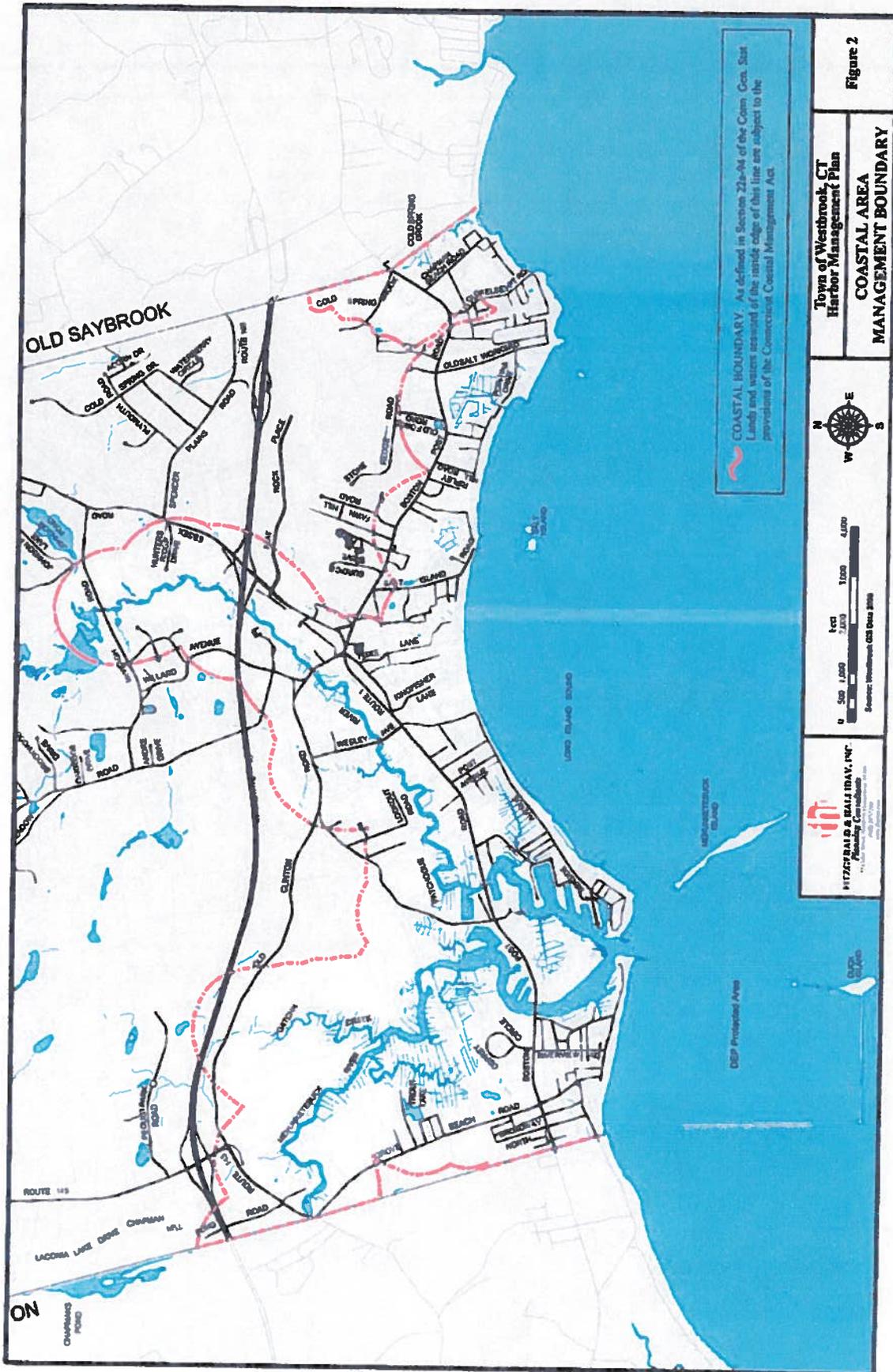


Figure 2

arises. The Town Dock located off Hammock Dock Road is heavily used during the recreational boating season, as is the public boat ramp located at the intersection of Route 145 and the Menunketesuck River. A desire has been discussed to more efficiently manage Westbrook's mooring program, especially with respect to what are referred to "beach" moorings on Long Island Sound. In some cases, there is worry that the equipment used for those moorings, if not properly installed, could pose a danger to swimmers and others that use the waters around those moorings.

Channel Bank Erosion. The coastal tidal marshes of Westbrook are protected from the waves of Long Island Sound and are for the most part spared the erosive effects of storm waves. Concern exists, however, with the erosive effects of boat wakes throughout the Patchogue and Menunketesuck Rivers where boating is prominent. Erosion is occurring along the marsh edges located along and throughout both rivers. Much of the eroded material, primarily silt and mud, is transported southward and into the existing river channels and anchorage areas requiring periodic maintenance dredging. This creates a unique problem in terms of harbor management. The rivers have experienced siltation over time requiring periodic maintenance dredging including the dredging that occurred in the Fall and Winter of 2012. If damaging boat wake issues are not addressed, both rivers will continue fill with sediment to the point of further restricting navigation requiring expensive dredging. In addition, extensive amounts of shoreline will continue to disappear reducing or eliminating public access and, in the case of tidal wetlands, reduce or eliminate important biological habitat. Many areas of the shoreline and Westbrook Harbor Sector (WHS) will therefore be at risk to become shallow indentations in Connecticut shoreline, unapproachable by even small-sized boats during all but high tide periods. An additional consideration includes the question of whether there are sufficient pump-out facilities available for boaters within the harbor.

Private Docks. In areas north of Route 1, concern exists over the extension of private docks into the narrow waterways of both the Patchogue and Menunketesuck Rivers and how new docks may impact the restricted navigability that exists in those areas. Policies and goals and new ordinance language contained in Section 8, Harbor, Boats and Waterways, have been adopted to insure adequate navigation for all. Language has also been added to better manage the adverse impacts of pile and timber piers that extend over tidal wetlands.

Boat Speed. A common concern cited by the Commission is a lack of enforcement ability for boats traveling through the harbor at greater than "Slow-No-Wake" speeds. Lack of municipal funding and availability of personnel who can issue citations are often cited as reasons that more isn't done to provide a safer harbor for boaters in Westbrook.

Public Access. Further, discussions regarding the fact that there exist too few public opportunities for access to the harbor are common. The Commission is interested in upgrading areas that may be suitable for both small boat and general public access, especially south of Route 1.

ACOE Projects

The Army Corps of Engineers (ACOE) has been responsible for navigation and for providing a safe anchorage within the Patchogue River for approximately 55 years.

Federally funded maintenance dredging of the Patchogue River Federal Channel to a depth of 8± feet below the MLW was carried out by the Corps of Engineers in 1964, 1974, 1977, 1983, 1977-98, May 2010 and May 2011. In October-December 2012, the ACOE dredged 34,000 cubic yards of sediment from the Federal channel and anchorage from the mouth of the rivers at Pilots Point up to Route 1 on

the Patchogue River. The project, which had been discussed and permitted for a period of over 5 years, finally relieved that part of the harbor from the shoaling that has plagued many vessels using those waters.

Anchorage Areas

In 2012, the Army Corps of Engineers dredged the mouth of the Patchogue River from south of Pilot's Point north to the "Singing Bridge" at Route 1. Within that area of dredging is a Federal Anchorage Area, which requires that it be available to all citizens of the United States, on an equal basis, and without any real or implied discrimination as to Town or State of residency (Figure 3). Encroachments within the channels and anchorage area – permanent and temporary - are not permitted. There are no Coast Guard designated Special Anchorage Areas anywhere along the entire Westbrook shoreline. The Federal Anchorage Area includes several moorings which are reserved for transient boaters.

Route 1 Boston Post Road

Kelsey's Marina

Pilot's Point Marina

Ritt's Marina

Duck Island Yacht Club

Harry's Marina

Town Dock

Carlson's Landing

Federal Anchorage

East Yard

Pilot's Point Marina

Seaside Avenue

South Yard

Patchogue River *

Figure 3
Lower Patchogue River
(to be used for Planning Purposes Only)

*Patchogue River dredged
to 8 foot depth, Fall, 2012

Westbrook Harbor Management Commission
Town of Westbrook
866 Boston Post Road
Westbrook, CT 06499

www.westbrook.ct.us/harbormanagment



Pilot's Point

125'

105'

75'

105'

75'

75'

Existing Harbor Sector and Other Shoreline Uses and Users

1. General

The Westbrook Harbor Sector is a heavily utilized boating resource for both commercial and recreational purposes, including six commercial lobstering boats. In all of Westbrook there are estimated to be between 1,800 and 2,000 commercial slips, approximately 40 slips within "dockominium" ownership and another 50 to 75 slips within Duck Island Yacht Club. Within the Patchogue River alone there are approximately 1,600 slips. In total, there are approximately 2,100 commercial and yacht club slips in Westbrook. That does not include the private residential docks that exist in Westbrook waters. Figure 4, Marinas and Navigational Channels, shows the distribution of facilities throughout the lower Patchogue and Menunketesuck Rivers.

Westbrook has 12 full-service marina facilities that employ approximately 120 full-time workers. There are 10 boat dealers and 24 other marine-related businesses that employ another 160 people, both full-time and part-time. These businesses include retail sales, repair and service shops, sail and canvas repair and makers, bait and tackle shops, sailing lesson businesses (Sail CT Access – handicapped sailing lessons), and sight-seeing and charter fishing boat businesses.

Many governmental organizations use the harbors including the U.S. Coast Guard Auxiliary, U. S. Fish & Wildlife Service, the Connecticut Department of Energy and Environmental Protection, the Westbrook Marine Patrol, and the Westbrook Fire Department.

2. Mooring and Anchorage Areas

The mooring and anchorage areas within Federal Anchorage in Westbrook Harbor are limited in size and accommodate only 15 boats, including those reserved for transient boaters. It is the desire of the Commission to establish additional mooring and anchorage areas within Westbrook harbor waters if and when the need arises. One example of a new mooring and anchorage area might be the area protected by the jetties associated with Duck Island, although water depths there are primarily shallow. Such additional mooring opportunities are thought to be unnecessary at this time.

3. Boating Services (launches, yacht clubs, commercial fishing)

Boating services in Westbrook are mainly included in the marina and boat yard category. These service facilities exist primarily within Area B of the Menunketesuck and Patchogue Rivers. Some smaller facilities exist in the Menunketesuck and Patchogue Rivers north of Route 1 in Areas C and D. Several yacht clubs exist in Area B of the Patchogue River as well.

4. Fisheries (shellfish and finfish)

Although the Westbrook Shellfish Commission is not currently meeting as a whole, the Town of Westbrook is currently conducting business through an ad hoc Shellfish Committee. Recent efforts of the committee have included the identification of the numerous shellfish leases existing within the Menunketesuck and Patchogue Rivers and offshore in locations south of Duck Island.

5. Additional Recreational Uses (public and private beaches)

There are numerous beaches located along the shores of Westbrook. Most are private and overseen by beach associations, but there are two beach areas in Westbrook available for use by all residents and visitors. The largest, Westbrook Town Beach, is officially known as "West Beach" and is located to the east of the entrance to the Patchogue and Menunketesuck Rivers. Parking, by sticker only, is available for an estimated 150 cars. There are bike racks that allow bikers to use the beach without the cost of acquiring a parking permit. Rest rooms and changing facilities are

available. A second beach, Middle Beach, is located further east off Salt Island Road but is limited in use because of limited parking availability. At Middle Beach, there are no public facilities available.

Private association beaches exist along the remainder of Westbrook's frontage on Long Island Sound. Although all beaches seaward of the mean high water mark are held in trust by the State of Connecticut for use by the public, land-side access to the beaches is difficult because in most cases, private property must be crossed to gain access. Like Middle Beach, little parking availability also discourages use of those public resources as well. Picnicking and birding in and near the extensive tidal marshes and scenic areas along the shore offer additional recreational opportunities, but access to the interior of the tidal marshes is limited due to the presence of some private landholdings. Since these areas are extensive within the Westbrook Harbor Sector, public use and access to the water here is considerably restricted.

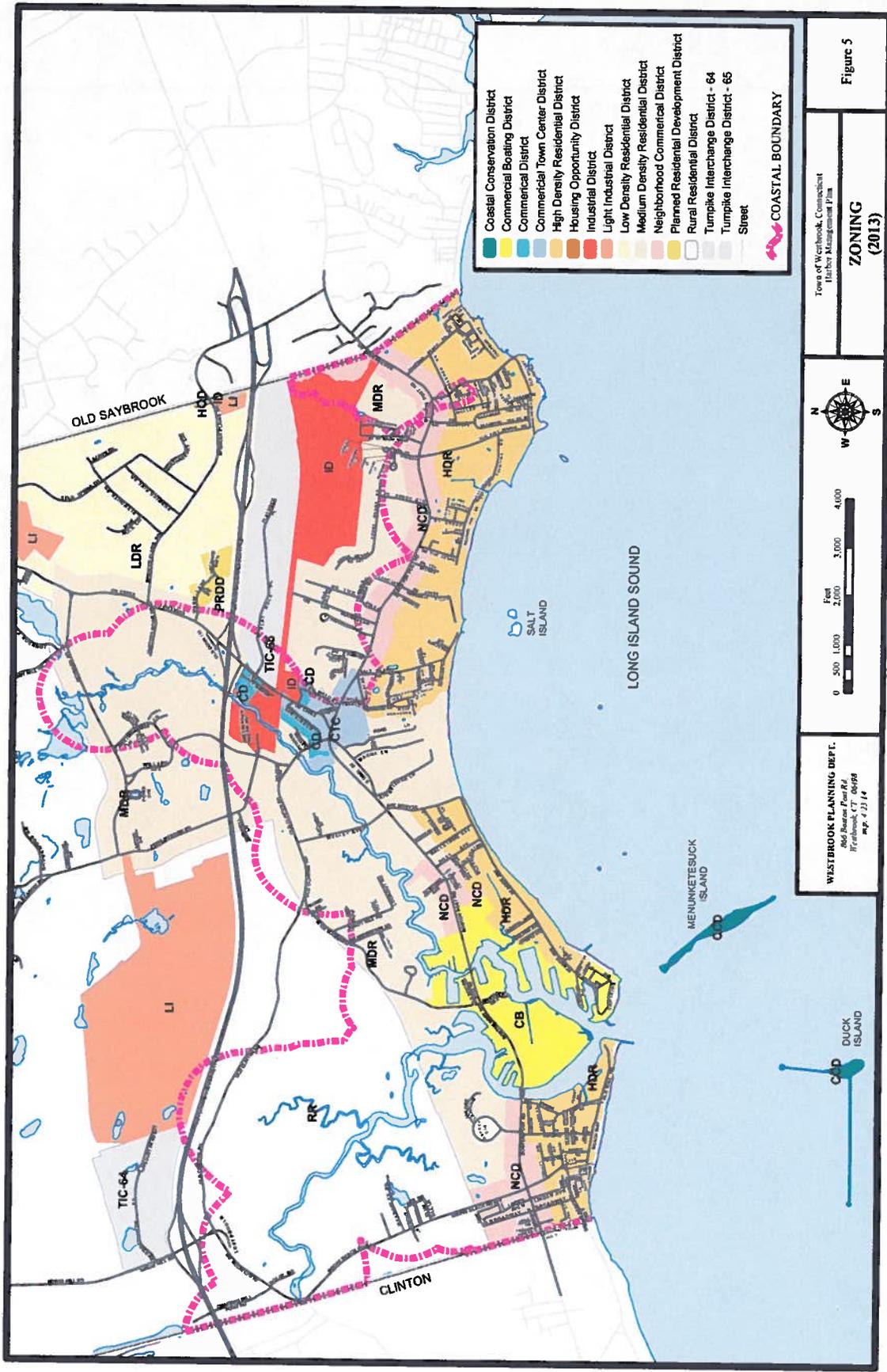
Public recreation in the form of hiking and birding also exists within the Stewart B. McKinney National Wildlife Preserve (SBMNWP) which fronts on the Menunketesuck River and is accessed from Old Clinton Road where parking exists for approximately 20 vehicles. Westbrook's "Salt Meadow Unit," one of ten such designated areas within the SBMNWP of Connecticut, has been designated as an "Important Bird Area" by the National Audubon Society. The area is used by over 280 species of migrating neo-tropical birds during the spring and fall migrations. Hiking and bird-watching opportunities exist within the Preserve.

It is the intention of the Westbrook Harbor Commission to strive for the development of more areas for the public to access the waters of Westbrook as opportunities and/or need present themselves. Included in the list of facilities would be additional boat launching points where warranted and where feasible, especially south of Route 1, and additional canoe/kayak launching points throughout town. Where feasible, the canoe/kayak launch sites should be developed to include fishing access and public education opportunities. An excellent example of such a location is immediately behind the Mulvey Municipal Center, located on the Patchogue River. Another opportunity for such access is seen at the western end of the parking lot which services the Westbrook train station just north of the center of town off Route 165.

6. Upland Land Uses and Zoning

The waters of Westbrook are surrounded by numerous categories of land uses including residential, marine-related and commercial. Zoning classifications for the upland districts are shown on Figure 5. Most of the land in the heart of the harbor area within Areas "B" harbor area is zoned as the Commercial Boating District (CB). It is this area that includes most of the numerous marinas and marine-related businesses in Westbrook. Residentially-zoned areas, including the High Density Residential (HDR) and the Medium Density Residential (MDR) Districts front on Long Island Sound in Area "A" along with areas to the west of the Menunketesuck River in Area "B." The Medium Density Residential (MDR) District surrounds the marshes of the Patchogue River north of Route 1 while the Medium Density and Low Density Residential (MDR and LDR) Districts surround the marshes of the Menunketesuck River north of Route 1.

The Commission may review and make recommendations, consistent with the Plan, on any proposal affecting the real property on, in or contiguous to the harbor that is received by the Zoning Commission, Planning Commission, Zoning Board of Appeals, Shellfish Commission, Water Pollution Control Authority or special district with zoning or other land use authority. Such agencies are required to send a copy of any such proposal to the Harbor Management Commission upon the request of the commission.



Town of Westbrooke, Connecticut
 Harbor Management Plan
ZONING
(2013)

WASTBROOK PLANNING DEPT.
 260 Business Park Rd
 Westbrooke, CT 06598
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Figure 5

Coastal Resources within the Westbrook Harbor Sector

1. General Resources

General coastal resources are the coastal waters of the state, their natural resources, related marine and wildlife habitat, and adjacent shorelands, both developed and undeveloped, that together form an integrated terrestrial and estuarine ecosystem. (Connecticut General Statutes [CGS] § 22a-93[7]).

Westbrook has long recognized that its coastal resources are one of its primary assets. The preservation and enhancement of these coastal resources are integral objectives to Westbrook's planning efforts and are critical to the Town's future. The Town's existing coastal resources, as defined by the CCMA, are depicted on Figure 6. It is noted that actual on-site coastal resources assessments should prevail over those shown on this map.

2. Beaches and Dunes

Beaches and dunes are beach systems including barrier beach spits and tombolos, barrier beaches, pocket beaches, land contact beaches and related dunes and sandflats. In general, beaches are dynamic areas abutting coastal waters that are characterized by sand, gravel or cobbles. [CGS § 22a-93(7)(C)].

A tombolo is a sand or gravel bar connecting an island with the mainland or another island. When located waterward of other shoreline features, it may act as barrier to wave action on the shore.

A spit is a small point of land jutting into a body of water. When located waterward of other shoreline features, it may act as barrier to wave action on the shore.

Barrier Beaches are narrow, elongated ridges of sand and gravel that form parallel to the coast, separating coastal lagoons, estuaries, and wetlands which they enclose from the open ocean. A tidal inlet often cuts through the barrier to connect the lagoon to the ocean.

Bluffs and Escarpments are steep slopes or long cliffs along a beach system that results from erosion and separate two relatively level areas of differing elevations.

Beaches and dunes provide critical nesting habitat for some shore birds and unique habitats for plant species and communities. They dissipate wave energy, thus acting as a shoreland buffer from coastal flooding and upland erosion. Beaches and dunes provide a wealth of recreational opportunities, including fishing, swimming, sunbathing, hiking/walking, boating, and sightseeing. Dunes and dune ridges act as reservoirs for sand supply to beaches. Because of these functions, beaches and dunes are also areas of scientific and educational value.

A primary CCMA beach and dune policy is to preserve the dynamic form and integrity of natural beach systems in order to provide critical wildlife habitats, a reservoir for sand supply, a buffer for coastal flooding and erosion, and valuable recreational opportunities; to insure that coastal uses are compatible with the capabilities of the system and do not unreasonably interfere with natural processes of erosion and sedimentation, and to encourage the restoration and enhancement of disturbed or modified beach systems CGS 22a-92(b)(2)(C).



COASTAL LAND RESOURCES

MODIFIED BLUFFS and ESCARPMENTS: Bluffs and escarpments which have been temporarily stabilized by erosion control structures (retention, bulkhead, or seawall) positioned seaward of the main cliff or escarpment.

BEACHES and DUNES: Moderately sloping shores composed of water worked sand, gravel, or cobble deposits (beach) and when present, wind deposited sands (dunes or sand flats). The beach (strip) is positioned between mean low water and coastal bluffs/escarpments or dunes or vegetation. The map designations include all areas of sandy beach fill. Dunes and sand flats positioned landward and elevated above the beach, support coastal grasslands (skumated by beach grass).

MODIFIED BEACHES and DUNES: Beach systems temporarily stabilized by an erosion control structure (retention, seawall or bulkhead) positioned between the dune ridge and the beach.

ROCKY SHOREFRONTS: Shorefront composed of boulder or armorment with a dense aggregate of boulder and stone. Includes rugged nearly vertical rock cliffs or gently seaward sloping rock and boulder lands.

COASTAL FLOOD HAZARD AREA: 100-year coastal flood hazard area as identified by the Federal Emergency Management Agency (FEMA).

FRESHWATER WETLANDS SOILS: Freshwater wetlands based on soil types as determined from the "Advance Connecticut Soil Survey Database" (USDA NRCS and CTDEP, 1995).

TIDAL WETLANDS: Tidal wetlands based on tidal marsh soils. Data from the "Advance Connecticut Soil Survey Database" (USDA NRCS and CTDEP, 1995).

ISLANDS: A land mass of boulder, rock, or fill extended by coastal waters. (Note: All critical coastal resource components of the islands such as bluffs and escarpments, beaches and dunes, rocky shorefront, and wetlands should be managed accordingly whether or not these are displayed on this map.)

SHORELANDS: Upland areas at elevations in excess of the 100 year still water flood level and located within the Coastal Boundary.

WATER: Open water bodies such as lakes, ponds, and rivers.

INTERTIDAL RESOURCES

INTERTIDAL FLATS: Level to gently sloping areas subject to alternate periods of tidal inundation and exposure. Sediment is variable ranging from mud to sand.

TIAM: WETLANDS considered as intertidal resources.

COASTAL WATERS

ESTUARINE EMBAYMENTS: Protected shallow water areas with an open connection to the Sound (including tidal rivers, bays, coves and lagoons).

NEARSHORE WATERS: Those waters and submerged lands between mean low water and a depth approximated by the 10 meter bathymetric contour.

COASTAL BOUNDARY: As defined in Section 22a-94 of the Conn. Gen. Stat. Lands and waters seaward of the middle edge of this line are subject to the provisions of the Connecticut Coastal Management Act.

Figure 6

COASTAL RESOURCES

Town of Westbrook, Connecticut
Harbor Management Plan

Scale: 0 500 1,000 2,000 3,000 4,000 Feet

North Arrow

FITZGERALD & HALLIDAY, INC.
Planning Consultants
115 Commercial Street
Westbrook, CT 06498
(860) 387-2200
www.fitzgeraldhalliday.com

ABOUT THIS MAP:
This Coastal Resources map was created using the original Connecticut Coastal Resources Map Essex Quadrangle, CT DEP, 1979), the Town of Westbrook GIS data, and 1990 & 2000 aerials. This map is intended for general planning purposes only. Resource conditions may change over time. Therefore, for regulatory purposes, actual on site resource conditions should prevail over mapped resources.

Beaches and Dunes in Westbrook

Westbrook is relatively unique along the Connecticut coastline in that it has long continuous sections of beach. Approximately 95 percent of Westbrook's shoreline is comprised of beach (both sand and gravel) and dune. Along much of this length, the beaches and dunes are simultaneously classified as modified bluffs and escarpments (see Figure 2), meaning that erosion control structures (revetments, bulkheads, or seawall) have been constructed behind the beaches, separating them from the adjacent uplands. This indicates that Westbrook's shoreline originally included long stretches of natural bluffs and escarpments. Approximately 14 percent of the shoreline is classified as "modified" beach, meaning that erosion control structures have been constructed within a beach system, often splitting the beach.

The modification of Westbrook's shoreline can be traced to its historical development, which was intimately tied to its very desirable natural beaches. Seasonal communities were built on or directly adjacent to the Town's wide and sandy beaches, resulting in the removal of coastal vegetation and leveling of dunes. Groins were constructed on some beaches, in efforts to protect against wave erosion and further loss of sand. However, in some cases, improper construction/placement of groins inhibited natural replenishment of sands and actually hastened beach erosion.

The quality, depth, and width of beach sands or gravels along the Westbrook shorefront are the result of the precarious balance between erosion and deposition by waves, wind, and longshore currents. Waves striking a beach run over the sand and recede at a right angle to the shore, pulling the sand down-drift of its origin. The process whereby longshore currents cause movement of beach sands and other sediments is called littoral drift and is a major factor in determining beach configuration. Along Westbrook's shoreline, sand is generally transmitted from east to west, with the exception of the Chapman Beach area, where sands move west to east. Accordingly, the easterly sides of beaches tend to erode while the westerly sides (particularly adjacent to groins) tend to be replenished with sand. No beach or other shore feature can be considered strictly erosional, stable, or building, but rather, should be viewed as continuously changing. All of the beaches of Westbrook are shown on Figure 7, Westbrook Beaches.

The majority of beachfront property falls under individual private ownership, with a relatively small amount owned by private beach associations and the Town. The major beaches within Westbrook, from a geological perspective, from west to east, are the following:

Grove Beach. Grove Beach extends from the Westbrook/Clinton line to Grove Beach Point (west of the confluence of the Menunketesuck and Patchogue Rivers). Grove Beach offers spectacular views of Duck Island and Duck Island Roads. The sands along Grove Beach Point spit are characterized as windblown but do not constitute a true dune system. Because of its windblown formation, this beach is particularly susceptible to change. This stretch of beach encompasses five (5) beach associations: Grove Beach Improvement, Grove Beach Tennis, Grove Beach Terrace, and Grove Beach Point Associations. Relatively rare coastal dunes exist adjacent to Grove Beach.

West Beach. West Beach starts from the east side of the confluence of the Menunketesuck and Patchogue Rivers at Pilot's Point and extends easterly along Seaside Avenue to the corner where the road turns north. Near Pilot's Point, this beach offers views of Duck and Menunketesuck Islands and the length of the beach has sweeping views of Westbrook Harbor. The Westbrook Town Beach and the Town-owned open space (on Seaside Avenue) are located along West Beach. A 500-600 foot long section of the beach east of the Town Beach is one of only two portions of Westbrook's

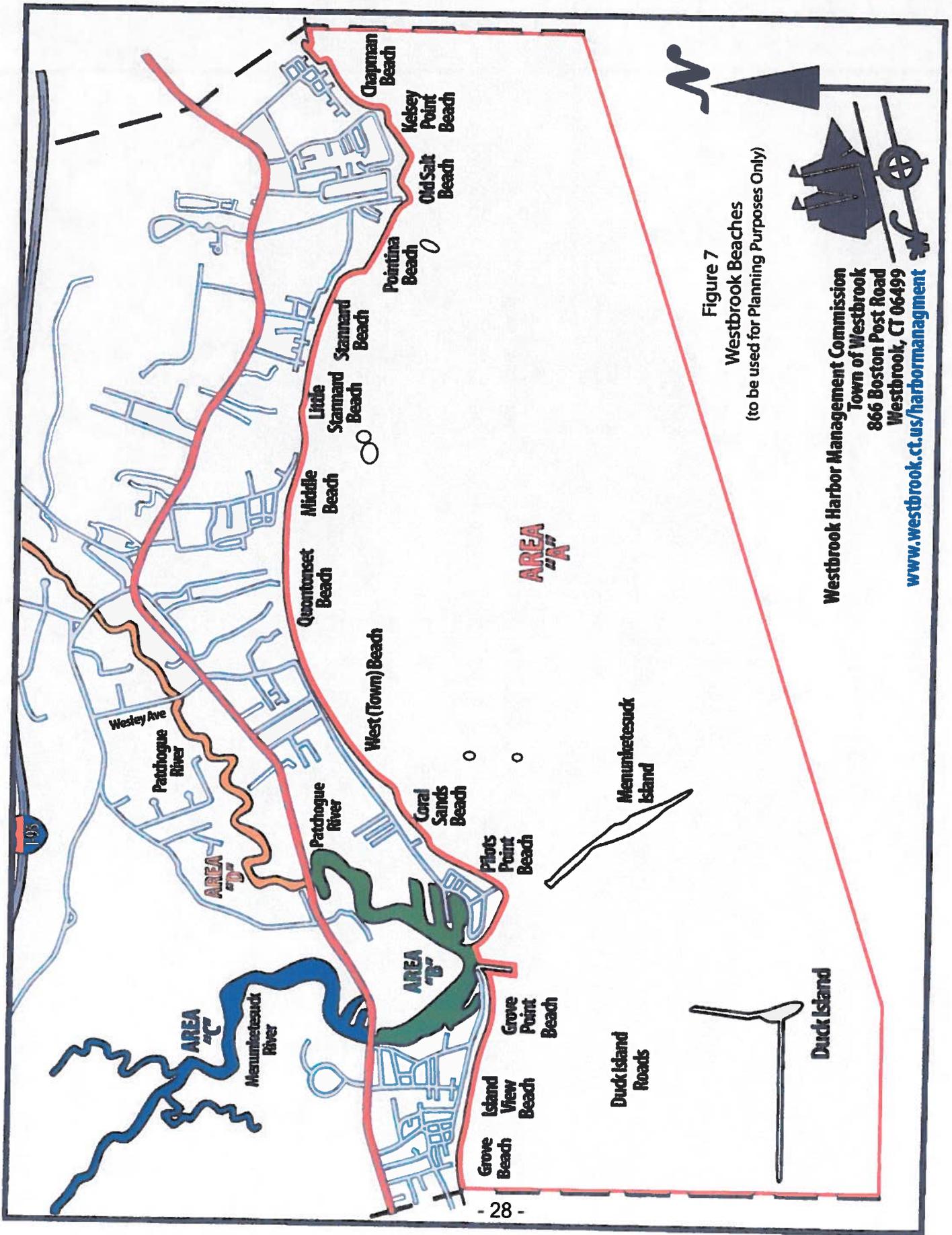
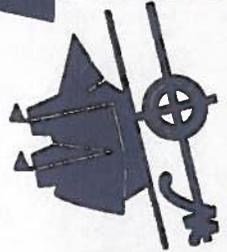


Figure 7
Westbrook Beaches
(to be used for Planning Purposes Only)



Westbrok Harbor Management Commission
Town of Westbrok
866 Boston Post Road
Westbrok, CT 06499
www.westbrok.ct.us/harbormanagment

shoreline that can be classified as true dunes. The arch of beach that is West Beach is home to three (3) beach associations: Pilot's Point, Coral Sands Beach and West Beach Improvement Associations.

Quotonset Beach. Quotonset Beach extends from Seaside Avenue to just east of Fiske Lane, offering primarily private beach access. This beach is noted as being particularly susceptible to change due to its adjacent upland erodible sediments. The Magna Lane Association touches upon a small portion of this relatively short beach.

Middle Beach. Middle Beach extends from Quotonset Beach to the Ripley Hill Road vicinity. Here, a large tidal wetland system discharges into the Sound, demarcating the boundary between Middle and Stannard Beaches. Middle Beach has public access from Salt Island Road in two locations, a narrow right-of-way to the shoreline and a small Town-owned open space parcel along the beach. This length of beach includes the Water's Edge Resort and takes in two (2) beach associations: Middle Beach and Little Stannard Beach Associations.

Stannard Beach. Stannard Beach extends between Little Stannard Beach and Money Point, offering only private beach access. The beach is interrupted by a narrow tidal channel that passes between the termini of Seaview Terrace Extension and Pointina Road. The Stannard Beach Association is located within this geological beach.

Salt Works Bay/Long Rock Beaches. Salt Works Bay/Long Rock Beaches are small stretches of beach between Money Point and Old Kelsey Point along a coastline interspersed with rocky shorefronts and shorelands. These beaches are under private ownership. This irregular piece of coastline has four (4) beach associations: Pointina Beach, Old Salt Works Beach, Sagamore Terrace, and Old Kelsey Point Associations.

Chapman Beach. Chapman Beach extends from Old Kelsey Point to Cold Spring Brook, with a break of rocky shorefront near the intersection of First Avenue and Chapman Avenue. The third of Westbrook's three true dune systems extends for approximately 200 feet near the Old Saybrook town line. Old Kelsey Point Hill Association, Old Kelsey Hill Beach Association, Cedarcrest Beach Association, Old Kelsey Point Association and Chapman Beach are the five (5) associations along this stretch of shoreline beach. The Summerwood Condominium Association in Old Saybrook also has access to Chapman Beach.

3. Coastal Hazard Areas

Coastal hazard areas are statutorily defined as those land areas inundated during coastal storm events or subject to erosion induced by such events, including flood hazard areas as defined and determined by the National Flood Insurance Act and all erosion hazard areas as determined by the Commissioner. (CGS § 22a-93(7)(H)). In general, coastal flood hazard areas include all areas designated as within A-zone and V-zones by the Federal Emergency Management Agency (FEMA). A-zones are subject to still-water flooding during so called "100-year" flood events. During 100-year flood events, V-zones are subject to direct action by waves three feet or more in height.

Coastal hazard areas, also known as coastal flood hazard areas (CFHA), are lands that "store" excess water during flooding events. The primary CFHA policy under the Coastal Management Act is to manage coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized (CGS § 22a-92(b)(2)(F)).

Coastal Hazard Areas in Westbrook

Approximately 40 percent (965 acres) of Westbrook within the coastal management boundary is considered CFHA (Figure 8). Coastal flooding in Westbrook, as in other communities along Connecticut's coastline, is most often associated with storm events in Long Island Sound. Coastal flood hazard areas tend to be lowlands along beachfronts and adjacent to tidal waterways. The highest coastal flood levels in Westbrook have been caused by heavy rainfall and hurricane winds, times of heavy runoff combined with abnormally high tides. The hurricane of September 1938 brought the largest flood of record. This storm raised the floodwater of the Menunketesuck River 8 inches over the Route 145 highway bridge and floodwaters within the CHFA to elevations of 9.4 feet above sea level.

The magnitude and extent of flooding is variable, affected by tide cycle and wind velocity and direction. Many residents with little natural shoreline protection (such as rocky shorefronts) have erected seawalls to protect their property from erosion, particularly erosion from storm-force wave action. As a result, approximately 90 percent of Westbrook's shoreline (excluding groins and jetties) contains some type of erosion control structure. Historically, the heaviest property damages resulting from coastal storms have occurred along the 4,200 feet of shorefront between (and including) West Beach and Middle Beach.

Flood damage can be considerable when floods affect densely developed areas. Such areas in Westbrook are located south of Route 1 within the CFHA, where seasonal and year-round houses are highly concentrated. North of Route 1 residential land uses are less dense, with few structures actually within the CFHA. Commercial development within the flood hazard area overall is light, although there are concentrations of marine trades along the lower Menunketesuck and Patchogue Rivers.

As shown on Figure 8, Westbrook has three areas designated as "Undeveloped Coastal Barriers". They are located around Pilot's Point, Menunketesuck Island, and the Cold Spring Brook area. An Undeveloped Coastal Barrier is defined as a depositional geologic feature (such as a bay barrier, tombolos, barrier spit, or barrier island) subject to wave, tidal, and wind energies; protects landward aquatic habitats from direct wave attack; and contains fewer than one structure per five acres of fastland (non-wetland portion of the coastal barrier). These coastal barriers serve as important natural buffers to inland areas by absorbing the brunt of coastal storms. The federal Coastal Barriers Resources Act of 1990 aims to protect these coastal barriers by restricting federal funding, such as flood insurance, within these areas.

4. Coastal Waters and Estuarine Embayments

Coastal waters are those waters of Long Island Sound and its harbors, embayments, tidal rivers, streams and creeks, which contain a salinity concentration of at least five hundred parts per million under the low flow stream conditions as established by the commissioner. CGS § 22a-93(5).

Coastal waters can be separated into "nearshore waters," "offshore waters" and "estuarine embayments."

Nearshore Waters are those waters and their substrates lying between mean high water and a depth approximated by the ten meter contour. CGS § 22a-93(7)(K).

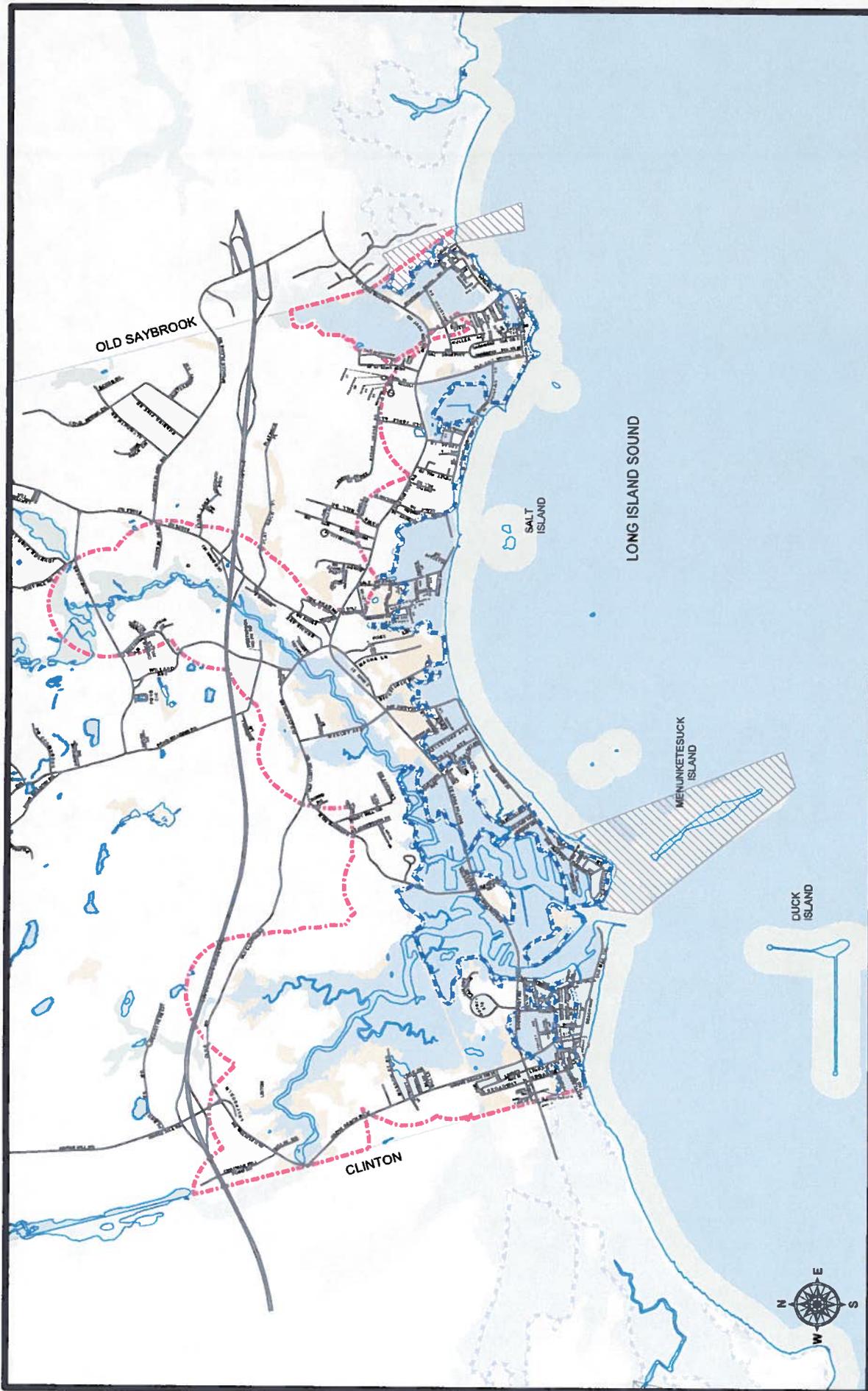


Figure 8

COASTAL FLOOD HAZARD AREAS

Town of Westbrooke, Connecticut
Harbor Management Plan

Zone A = An area inundated by 100-year flooding, for which no BFEs have been determined.
 Zone AE = An area inundated by 100-year flooding, for which BFEs have been determined.
 Zone VE = An area inundated by 100-yr flooding with velocity hazard; BFEs have been determined.
 X Zone = An area inundated by 300-year flooding.

LHW = Low Water
 Water Property Line
 Town Line
 Coastal Boundary

Zone A
 Zone AE
 Zone VE
 X Zone

Undeveloped Coastal Barriers

WESTBROOK PLANNING DEPT.
 866 Route Four Rd.
 Westbrooke, CT 06498
 map 4.22.14

Offshore Waters means the area comprised of those waters and their substrates lying seaward of a depth approximated by the ten meter contour. CGS § 22a-93(7)(L).

Estuarine Embayments are a protected coastal body of water with an open connection to the sea in which saline sea water is measurably diluted by fresh water including tidal rivers, bays, lagoons and coves. CGS § 22a-93(7)(G).

Coastal waters are areas of extremely high biological productivity and diversity. They provide habitat for a variety of marine organisms at all levels of the food web (e.g. algae, seaweed, diatoms, shellfish, finfish, crustaceans and benthic organisms) and provide spawning and breeding areas for many marine fish species. The very dynamic chemical and biological interactions result in continual contributions of nutrients and "food" to contiguous ocean waters. For humans, coastal waters are critical to the assimilation of industrial, commercial and residential wastes, the quality of commercial and recreational fisheries, and the availability of marine transportation, navigation, and recreational uses such as boating, swimming, fishing, scuba diving, and sightseeing.

Estuarine embayments are some of the most productive ecological zones in Connecticut, providing significant habitats for shellfish, finfish, and waterfowl, including specialized spawning habitats for anadromous and catadromous fish. Estuaries exhibit unique circulation patterns that influence nutrient distribution, control salinity, and break down and redistribute sediments. Estuaries often provide sheltered areas for submerged aquatic vegetation, which are especially valuable as nursery grounds, food, and shelter for many aquatic species. The chemical and biological interactions in estuarine embayments result in the transfer of energy and nutrients from one biological zone to another and from sediments into the water column.

Estuarine embayments are heavily used resources, offering boating, swimming, fishing, and passive recreation, as well as navigation channels for deepwater access. Due to their ecological and physical characteristics, they are areas of unique scientific and educational value.

The primary estuarine embayment policy under CCMA is *to manage estuarine embayments so as to insure that coastal uses proceed in a manner that assures sustained biological productivity, the maintenance of healthy marine populations and the maintenance of essential patterns of circulation, drainage and basin configuration (CGS § 22a-92(c)(2)(A).*

Westbrook's Coastal Waters and Estuarine Embayments

Westbrook's coastal waters are heavily used for boating, fishing, birding, and sightseeing, and thus play a leading role in the Town's quality of life as well as its tourism industry. Nearshore waters support considerable shellfish resources and a small bed of submerged aquatic vegetation (eelgrass) off Duck Island.

According to DEP's Surface Water Quality Classifications for Connecticut (May 2002), the surface water quality of most of Westbrook's coastal waters is classified as "SA", meaning a Surface Coastal Water (S) currently meeting Class A water quality standards and criteria. The SA classification means that water quality parameters (aesthetics, chemical and biological conditions) are consistently excellent, supportive and protective of aquatic life, public health, and designated uses for Class SA waters. Designated SA uses include habitat for marine fish, shellfish and wildlife, shellfish harvesting for direct human consumption, recreation, and all other legitimate uses including navigation. The coastal waters extending southeasterly from Old Kelsey Point toward Old Saybrook are classified as

“SA” waters, meaning the coastal water is currently meeting Class A water quality standards and criteria with a goal of Class A. The SA classification means certain water quality criteria or one or more designated uses of Class SA waters are currently being met. Designated SA uses include habitat for marine fish, shellfish and wildlife, shellfish harvesting for transfer to a depuration plant or relay (transplant) to approved areas for purification prior to human consumption, recreation, industrial uses, and other legitimate uses including navigation. For more information on State Water Quality, go to <http://www.ct.gov/deep/cwp/voew/asf?a=2719&q=325610&deepNav> GID=1654 For information on the 2012 Integrated Water Quality Report to Congress, go to [http://www.ct.gov/deep/lib/deep/water/water quality management/305b/2012 iwqr final.pdf](http://www.ct.gov/deep/lib/deep/water/water%20quality%20management/305b/2012%20iwqr%20final.pdf)

Westbrook has two estuarine embayments, the Menunketesuck River and the Patchogue River. These Rivers provide exceptional recreational, commercial, and navigational benefits to the Town. The significant tidal wetland systems associated with these rivers indicate a high level of ecological activity and productivity, enhancing their value in providing nutrients and food sources to coastal waters. These extensive soil-vegetation complexes serve to filter and purify both tidal waters and freshwater runoff and thus help to preserve water quality in the estuaries. The surface water quality of these estuarine embayments is classified by DEEP as SA.

The water quality of Westbrook’s coastal waters and estuarine embayments is inevitably linked with the land uses and land management practices within Westbrook’s watersheds, since runoff from the watersheds carries pollutants into these receiving waters. There are five sub-regional watersheds in Westbrook, corresponding to the major waterways in Town (Figure 5).

The watersheds within the CAM boundary and contributing runoff to Long Island Sound in Westbrook are:

Menunketesuck River Watershed. The Menunketesuck River watershed encompasses approximately 2,510 acres (24%) of Town and is located mainly within the western portion of Town. The Menunketesuck River watershed is a very large sub-regional watershed initiating in the south end of Haddam and extending well beyond Westbrook.

Patchogue River Watershed. The Patchogue River watershed, encompasses approximately 4,775 acres (46%) of Town and is located entirely within the Town. The river and its tributaries (Fishing Brook and Trout Brook) drain a major portion of Westbrook’s uplands into Long Island Sound.

South Central Shoreline Watershed. The South Central Shoreline watershed encompasses approximately 1,240 acres (12%) of Town and drains the southeastern portion of Town. The watershed contains Cold Spring Brook and is more developed than the other watersheds.

Falls River and Oyster River Watersheds. The Falls River watershed is outside the CAM boundary and drains north/northeast through Deep River into the Connecticut River, while the very small portion of land in the Oyster River watershed drains east/southeast into Oyster River into Long Island Sound in Old Saybrook.

5. Freshwater Wetlands and Watercourses

Freshwater wetlands and watercourses are defined by CGS § 22a-38 and 22a-93(7)(F). Wetlands means land, including submerged land, not regulated pursuant to § 22a-28 to 35 inclusive, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and flood

plain by the National Cooperative Soil Survey, as may be amended from time to time, of the Soil Conservation Service of the US Department of Agriculture. Watercourses means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, public or private, which are contained within, flow through or border upon this state or any portion thereof, not regulated pursuant to § 22a-28 to 35, inclusive.

Freshwater wetlands provide space for stormwater runoff storage, act as buffers for uplands against flood and erosion, provide wildlife habitat, and influence salinity and estuarine circulation through freshwater input. Freshwater wetlands within the southern half of Westbrook are shown in corridors colored green on Figure 9.

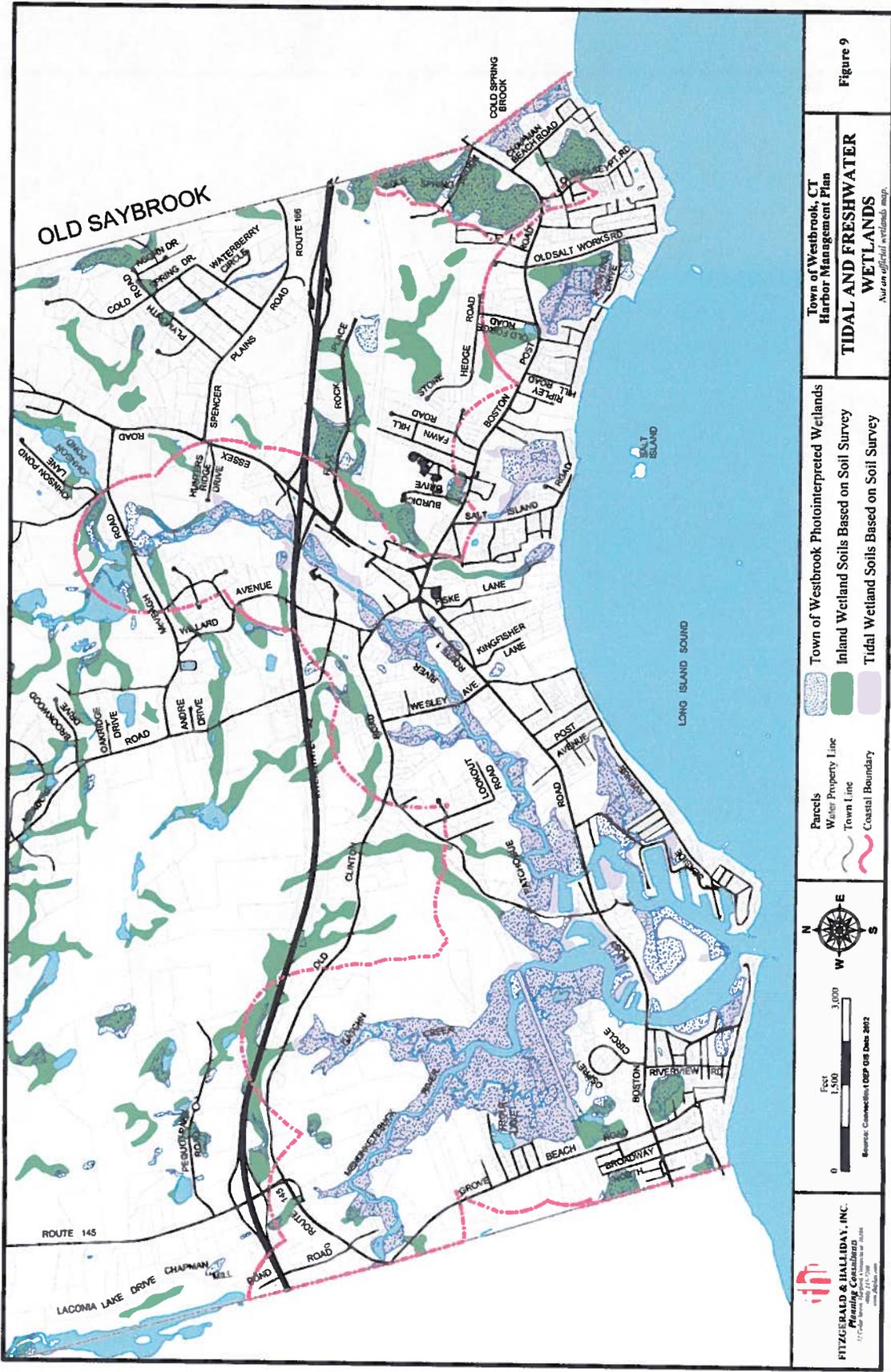
The lower reaches of the major rivers and brooks in Westbrook are estuarine embayments, which are tidally influenced. Going upstream from Long Island Sound, these watercourses become increasingly freshwater in nature. However, the topography within the CAM boundary is relatively flat with little variation. The river and stream banks in the coastal plain are also generally flat, the waters are relatively slow moving, and there are adjacent freshwater or tidal wetlands. This minimal variation in topography allows tidewaters to extend up the Patchogue River to McVeagh Road, which is over three miles upstream from the coast but only approximately 13 feet above sea level. Within the Menunketesuck River, tidewaters also extend upstream approximately 3 miles to Chapman's Pond, approximately 12 feet above sea level.

The notable rivers, streams, and water bodies within the CAM boundary from west to east are:

- Trout Lake;
- the upper reaches and tributaries of Gatchen Creek;
- the upper tributaries of the Patchogue River, Burdicks Brook, Spring Lot Brook, an unnamed stream stemming from McVeagh Pond, Trout Brook, and Brook Pond;
- an unnamed stream east of Fiske Lane;
- an unnamed stream east of Salt Island Road; and
- a stream and channel stemming from a pond near the intersection of Old Forge Road and Route 1.

According to the *Advance Connecticut Soil Survey Database* (USDA NRCS and DEP, 1995), approximately 180 acres of freshwater wetlands, based on soil type, are within Westbrook's CAM boundary (Figure 2). These are relatively large areas rather than numerous small patches, as follow:

- the Grove Beach district area, which includes the following specific areas: west of Riverview Road and south of Route 1, east of beach road and south of the railroad tracks, and west of Broadway North;
- wetlands associated with Gatchen Creek south of Interstate 95;
- a corridor of wetlands southeast of the Salt Meadow Refuge and northwest of Hammock Road North, which are associated with the Menunketesuck River;
- the area north of the intersection of Old Clinton Road and Wesley Avenue and the railroad tracks;
- the headwaters of the Patchogue River which contain wetland soils associated with Brook Pond, Trout Brook, and Burdick's Brook;
- a wetland corridor associated with an unnamed stream east of Fiske Lane and south of Route 1 that drains into tidal wetlands;



- two wetland soil areas associated with a tidal wetland north of Pointina Drive -- west of Old Forge Road, north of Route 1 and an area west of Old Salt Works Road;
- a large upland wetland (approximately 13 acres) located northeast of Old Kelsey Point Road; and
- the largest area of inland wetlands within the CAM boundary associated with Cold Spring Brook north of Route 1.

6. Intertidal Flats

Intertidal flats means very gently sloping or flat areas located between high and low tides composed of muddy, silty and fine sandy sediments and generally devoid of vegetation. CGS § 22a-93(7)(D).

Intertidal flats serve as rich sources of, and reservoirs for, nutrients. They provide valuable feeding areas for invertebrates, fish, and shorebirds, and provide significant shellfish habitat. Intertidal flats are sinks for toxic materials, which adhere to the fine sediments of the flats, and so help to improve water quality. Intertidal flats also provide recreational opportunities such as shellfishing, finfishing, and wildlife watching, serve as areas of scientific and educational value observation, and buffer shorelines from storm energy.

The primary intertidal flats policy provision under CCMA is *to manage intertidal flats so as to preserve their value as a nutrient source and reservoir, a healthy shellfish habitat and a valuable feeding area for invertebrates, fish and shorebirds...CGS § 22a-92(b)(2)(D)*

Intertidal Flats of Westbrook

Intertidal flats border much of Westbrook's coastline and there are some broad areas of intertidal flats that extend offshore (Figure 6). In addition, intermittent patches occur within the Patchogue River south of Route 1. The farthest offshore extent of intertidal flats stretches from Grove Beach/Pilot's Point to Menunketesuck Island and Great Rocks. Intertidal flats also extend from Middle Beach to Salt Island. The intertidal flats south of Cold Spring Brook, around Pilot's Point, and north of Menunketesuck Island are designated as "Undeveloped Coastal Barriers" by the U.S. Department of Interior. Coastal Barriers are depositional geologic features (such as a bay barrier, tombolos, barrier spit, or barrier island) that are: subject to wave, tidal, and wind energies; protects landward aquatic habitats from direct wave attack; and contains fewer than one structure per five acres of fastland (non-wetland portion of the coastal barrier). These particular coastal barriers serve as important buffers to inland areas by absorbing the brunt of coastal storms.

7. Islands

Islands are lands surrounded on all sides by water. CGS § 22a-93(7)(J).

Islands, undeveloped islands in particular, provide isolated nesting areas and critical habitat for shorebirds and sometimes support plant or animal species that have all but disappeared from the mainland. Islands may provide a variety of benefits, such as unique recreational opportunities for fishing, swimming, boating, and wildlife observation; large amounts of open space; scientific and educational value; and barrier protection for the mainland to dampen storm waves.

Islands of Westbrook

Westbrook has three major islands offshore, all of which are undeveloped. They are Menunketesuck Island, Duck Island and Salt Island. Smaller islands, or rock outcroppings, also exist along the shoreline (Figure 6).

Menunketesuck Island. Menunketesuck Island is the largest, approximately 9 acres, and is owned and managed by the U.S. Fish and Wildlife Service. It has been classified by the DEP and the U.S. Department of Interior as a barrier island, which means that development is discouraged and the maintenance of the island for storm protection and resource habitat is encouraged. The island is zoned "Coastal Conservation District", which means it *has been determined to be environmentally significant and special in nature and is of such character in its natural state that it should be protected from development* (Westbrook Zoning Regulations Section 4.104.01). The island is considered important in protecting the Pilot's Point and Grove Beach communities from storm damage.

Duck Island. Duck Island is approximately 7 acres and was acquired in 1973 by the DEP as public open space. In 2000, the State designated Duck Island a Natural Area Preserve. The island provides nesting sites for herons, egrets, and glossy ibises. Duck Island is a popular island for anchoring and recreational use, which have adversely impacted the quality/integrity of the Preserve (see Section 2.1.10). There are two distinctive jetties, one extending northward and the other extending westward. Along the northern jetty's west side is the only known current location of eelgrass beds in Westbrook.

Salt Island. Salt Island is approximately 1.5 acres and is owned by the Town. Its recreational use is largely limited to beachgoers and small watercraft. Direct walking access to the island is possible during low tide, as the intertidal flats are exposed from the mainland to the island.

8. Rocky Shorefronts

Rocky shorefronts are shorefront areas composed of bedrock, boulders, and cobbles that are highly erosion resistant and are an insignificant source of sediments for other coastal landforms. (CGS) § 22a-93(7)(B) In general, rocky shorefronts are naturally occurring rocky outcrops that are the interface between the land and water.

Rocky shorefronts serve a variety of important functions. They provide hard substrate habitat for intertidal organisms such as barnacles, blue mussels, rockweed, starfish, and oyster drills, and feeding grounds and refuge areas for shorebirds and finfish. They dissipate and absorb storm and wave energy without significant changes in shoreline configuration. Rocky shores also provide scenic vistas and recreational opportunities such as bouldering and wildlife observation.

The primary rocky shorefronts in Westbrook exist toward the eastern shores of Westbrook in the vicinity of Salt Works Bay and Chapman Beach (Figure 6).

9. Shellfish Concentration Areas

Shellfish concentration areas are actual, potential or historic areas in coastal waters, in which one or more species of shellfish aggregate. CGS § 22a-93(7)(N) Many shellfish concentration areas provide harvest opportunities for personal consumption or by Connecticut's aquaculture industry.

Shellfish concentration areas provide habitat for several species of shellfish; contribute to the diversity of benthic life; and provide sources of food for shorebirds, lobsters and other marine life. For humans, shellfish concentration areas represent an important source of food, provide recreational shellfishing opportunities, and allow for economic opportunities and employment within the shellfish industry.

Westbrook's Oyster Beds

According to 1997 DEP Office of Long Island Sound Programs information, oyster beds are located within Menunketesuck River just south of the Amtrak railroad and south of Route 1, and just west of Pilot's Point at the mouth of Menunketesuck and Patchogue Rivers (Figure 10 and 11). These same areas are locations of hard clam beds. The hard clam bed within the Patchogue River is more extensive than the oyster area, extending offshore past Grove Beach Point. A very large additional area of hard clam beds of approximately 310 acres is situated in Westbrook Harbor between Menunketesuck Island and Quotonset Beach (Figure 7).

The quantities of shellfish are limited and Westbrook does not conduct a shellfish testing program; therefore, shellfish harvesting is prohibited by the Town. There is some concern, however, that unauthorized recreational harvesting of shellfish occurs in these areas.

10. Shorelands

Shorelands means those land areas within the coastal boundary exclusive of coastal hazard areas, which are not subject to dynamic coastal processes and which are comprised of typical upland features such as bedrock hills, till hills and drumlins. CGS § 22a-93 (7)(M).

Shorelands can enhance marine resources by providing immediate sources of sediments. They provide premier access to water resources and provide scenic vistas. They also have high development and redevelopment potentials and can be a major contributor of nonpoint source pollution to coastal waters.

The primary shoreland policy under CCMA is to regulate shoreland use and development in a manner which minimizes adverse impacts upon adjacent coastal systems and resources. CGS § 22a-92(b)(2)(l)

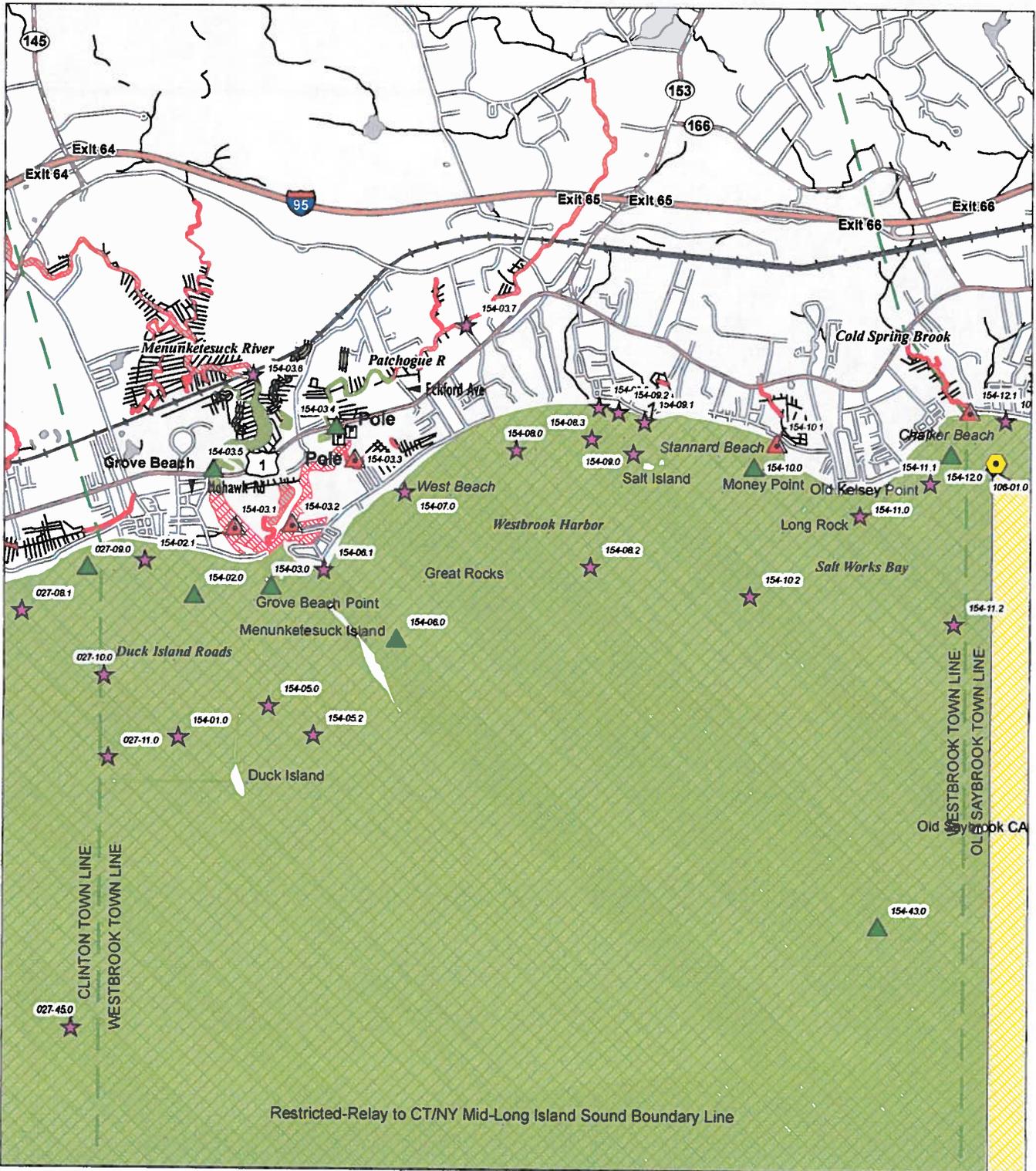
Shorelands of Westbrook

Approximately 60 percent (1,420 acres) of the area within Westbrook's CAM boundary is considered to be shorelands (Figure 2). Most of the development within the CAM boundary is situated within the shorelands. Shorelands support several of Westbrook's water-dependent uses, which include marinas and boat access points.

11. Submerged Aquatic Vegetation (SAV)

Submerged aquatic vegetation (SAV) includes those rooted, vascular, flowering plants that live permanently submerged below the water in coastal, tidal and navigable waters. The primary species in Long Island and Fishers Island Sounds are eelgrass and widgeon grass. In the brackish and fresh tidal areas of Connecticut there are seventeen other species of SAVs, the dominant one being tapegrass.

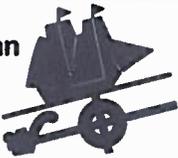
SAV beds are some of the most productive shallow water habitats on earth. They provide critical shelter for finfish and essential habitat for shellfish, especially scallops, and they improve water quality by taking up nutrients, removing sediment from the water column, and reducing wave energy, thereby minimizing shoreline erosion rates. They also are an important food source for many waterfowl species. Because of the importance of SAV beds, recreational and commercial fishing operations in Connecticut are particularly dependent upon their preservation.



Restricted-Relay to CT/NY Mid-Long Island Sound Boundary Line

Town of Westbrook, CT Harbor Management Plan Shellfish Resources

Effective: March 15, 2000
Amended: January 15, 2004



Map not intended for navigation

0 0.090.18 Miles

Department of Agriculture/Bureau of Aquaculture
tel: 203-874-0696 e-mail: dept.agriculture@snet.net

DABA Water Quality Stations Class	NPDES Major
Approved	Shellfish Area Classification
Conditionally Approved	Approved
Conditionally Restricted	Conditionally Approved
Prohibited	Conditionally Restricted Relay
Restricted	CRR/Depuration
Special Study	Prohibited
	Restricted Relay
	RR/Depuration
	Conditionally Approved
	Restricted-Relay
	Conditionally Restricted-Relay
	Prohibited

Map Date: Jul 14, 2010

Figure 11

SAVs in Westbrook Waters

The only known SAV beds in Westbrook's coastal area are eelgrass beds in Duck Island Harbor, which is northwest of the island (Figure 10). While resource mapping (DEP, 1997) indicates approximately an acre of eelgrass beds, local residents believe this area has expanded.

12. Tidal Wetlands

Tidal wetlands are those areas which border on or lie beneath tidal waters, such as, but not limited to banks, bogs, salt marshes, swamps, meadows, flats, or other low lands subject to tidal action, including those areas now or formerly connected to tidal waters, and whose surface is at or below an elevation of one foot above local extreme high water; and upon which may grow or be capable of growing some, but not necessarily all, of [a list of specific plant species – see CGS § 22a-29(2) for complete list of species] [CGS § 22a-29, as referenced by CGS § 22a-93(7)(E)]. In general, tidal wetlands form in “low energy” environments protected from direct wave action. They are flooded by tidal waters twice a day and support a diverse ecosystem of vegetation and wildlife.

Tidal wetlands are among the most naturally fertile areas of Connecticut. Tidal wetlands are areas of high nutrient and biological productivity, producing plant/animal food sources and detritus (products of decay) that form a strong foundation for the estuarine and marine ecosystem. Tidal wetlands provide habitat, nesting, feeding, and refuge areas for shorebirds; serve as nursery grounds for larval and juvenile forms of many Long Island Sound resident species and estuarine-dependent oceanic species; and provide significant habitat for shellfish.

Tidal wetlands also improve water quality by trapping sediments and nutrients, reducing turbidity, restricting the passage of toxics and heavy metals, decreasing biological oxygen demand (BOD), and buffering coastlines from storm/wave energy. Tidal wetlands allow for recreational opportunities such as fishing, wildlife observation, hunting, and commercial or recreational shellfishing. These areas serve as outdoor laboratories for scientific/educational investigations, and represent a major source of coastal open space.

Westbrook's Tidal Wetlands

According to the *Advance Connecticut Soil Survey Database* (USDA NRCS and DEP, 1995), within Westbrook's CAM boundary, there are approximately 400 acres of tidal wetlands (Figure 6). The bulk of the tidal wetlands in Westbrook is associated with the Town's major tidal watercourses, the Menunketesuck River and the Patchogue River, forming wetland corridors along these tidal rivers. There are some small brooks and coves, however, where minor tidal creeks penetrate inland. The larger tidal wetland complexes include the following:

Menunketesuck River

The Menunketesuck River has the largest amount of associated tidal wetlands (approximately 200 acres) in Westbrook, enveloping both sides of the river for most of its length through Westbrook. Approximately 80 acres of these tidal wetlands are considered “protected” in that they have been dedicated for open space purposes. This overall complex includes the Gatchen Creek tidal wetland system. While the majority of the Menunketesuck River tidal wetlands are located north of Route 1, there is a small pocket of tidal wetlands along the western bank of the river before its confluence with Patchogue River.

Patchogue River. The Patchogue River has approximately 145 acres of tidal wetlands associated with it. The tidal wetlands along the river north of Route 1 form a continuous, although narrow, corridor. Tidal wetlands are not continuous along the lower reaches of Patchogue River south of

Route 1, but there are two large tidal wetland areas, one west of the river that is approximately 20 acres in size and the other east of the river that is approximately 30 acres.

Quotonset and Middle Beaches. In the vicinity of Quotonset and Middle Beaches are two tidal wetland systems. The smaller is located just south of Quotonset Lane, is approximately 3 acres in size, and defines the boundary between Quotonset and Middle Beaches. The other is located northeast of Salt Island Road and Seascapes Drive and is approximately 18 acres, of which 3 acres are owned by the Westbrook Land Conservation Trust, Inc. and 5 acres are Town-owned open space.

Stannard Beach. In the vicinity of Stannard Beach, north of Pointina Drive, is a tidal wetland approximately 20 acres in size.

Cold Spring Brook. The tidal wetlands along Cold Spring Brook are located south of Route 1 (north of Route 1 the wetlands associated with the brook are freshwater) and east of Chapman Beach, along the Westbrook-Old Saybrook boundary. Within Westbrook, this tidal wetland area is approximately 12 acres in size.

Harbor Management Goals and Objectives

This chapter of the Plan contains the goals and objectives established by the Westbrook Harbor Management Commission that will guide use of Westbrook waters as well as promote the conservation and enhancement of the natural and cultural resources found. The purpose of the Plan and of these goals and objectives is to develop policies that achieve a balance between numerous competing public purposes in and around the waters of Westbrook Harbor. Those public purposes include the protection and enhancement of environmental quality and the quality of life associated with Westbrook's location on the Patchogue and Menunketesuck Rivers and Long Island Sound; provision for opportunities for water-dependent recreational activities and public access to the waters of Westbrook; continuation and enhancement, where appropriate, of water-dependent businesses and harbor-related economic benefits to Westbrook and the region; and maintenance of the health, safety, and welfare of those who use the harbor of Westbrook and waterfront.

The six goals and associated objectives are thought of as basic guidelines for managing Westbrook Harbor waters. They establish a guiding framework for management decisions by the Harbor Management Commission and the other Town boards, commissions and agencies with authorities or programs that directly or indirectly impact the Westbrook Harbor and waterfront.

In addition, the goals and objectives are important in that they form the foundation for the detailed harbor management policies, the guidelines and water use plans and, finally, for the responsibilities and recommendations for Plan implementation found later in this Plan.

The following goals and objectives are not listed in any order of priority and include the following:

1. Public Recognition of Westbrook Harbor Resources and Values

Achieve widespread recognition of the important recreational, environmental, economic, cultural, and other resources associated with the waters of Westbrook Harbor, and of the importance of those resources and values to the overall quality of life in Westbrook.

Objectives:

- a. Gain support of the public for the budgetary necessities that accompany having an active and vibrant waterfront economy.
- b. Support local efforts for the development of an active public relations effort that celebrates the positive impact of Westbrook's marina-related businesses.
- c. Develop and maintain a modern website that is linked to that of the Town of Westbrook in order to keep Westbrook residents and the general public updated regarding issues of importance to the waters of Westbrook.

2. Natural Resources

Protect and, where possible, enhance the natural resources in and around Westbrook's waterfront and encourage their proper management.

Objectives:

- a. Recognize the interrelationship of the waters of Westbrook Harbor and the other natural resources found in and around the harbor area and Long Island Sound and the quality of life of Westbrook residents in general.
- b. Plan and manage water-related use and development of the waters of Westbrook Harbor and waterfront consistent with the ability of the natural resources to support such uses and development in an environmentally sensitive manner;
- c. Avoid new or expanded uses that exceed the ability of the harbor to support such uses in an environmentally sound manner.
- d. Manage, protect and, where feasible, restore and enhance natural coastal resources on, in, or contiguous to Westbrook Harbor, including surface water resources, tidal wetlands, intertidal flats, fisheries resources, shellfish resources, island resources, beaches, dunes, floodplains, and other similar resources.
- e. Protect and enhance the ecological functions and values associated with natural coastal resources, including functions and values related to fish and wildlife habitat, water quality and floodwater storage and buffer.
- f. Minimize sedimentation and erosion whenever possible with non-structural methods and "living" shorelines where practical.
- g. Support efforts to preserve and protect Westbrook's fragile nearshore islands and tidal marshes. While non-structural solutions can be considered when necessary and unavoidable for the protection of infrastructural facilities, cemetery or burial grounds, water-dependent uses, or commercial and residential structures and substantial appurtenances that are attached or integral thereto, constructed as of January 1, 1995, and where there is no feasible, less environmentally damaging alternative and where all reasonable mitigation measures and techniques have been provided to minimize adverse environmental impacts.

3. Public Access

Provide a system of waterfront community facilities and services that is responsive to public needs while maintaining and, where appropriate, enhancing those facilities and services that presently exist.

Objectives:

- a. Improve existing waterfront facilities and services as needed.
- b. Support the continued operation and enhancement of non-boating water-dependent facilities and areas, including waterfront parks and beach areas and other facilities that provide opportunities for public access to Westbrook Harbor.
- c. Consider both active and passive recreational interests in decisions regarding the management of the waters of Westbrook Harbor.

- d. Where appropriate, provide ease and convenience of movement from water to land and from land to water.
- e. Increase the amount of anchorage and dockage available in the harbor in order to enhance the accessibility of Westbrook for visitors and transient boaters.
- f. Provide improved management and allocation of existing public facilities.
- g. Reestablish Town road endings that have undergone privatization for access by the general public.
- h. Provide signage and other public notice of the availability of the town-owned road endings for public viewing purposes and public access, where practical.
- i. Support the maintenance and enhancement of such public areas where practical.

4. Economic Development

Encourage water-dependent marinas, related businesses and water-related opportunities which offer employment and address community needs which are compatible with the other goals and objectives of this Plan. Recognize and pursue opportunities for economic growth and community development associated with Westbrook Harbor, recognizing that the marine industry is at the core of Westbrook's economic health; achieve sustainable marine-related economic growth and community development in harmony with conservation and enhancement of the natural environment.

Objectives:

- a. Support beneficial use, development and enhancement of commercial waterfront areas, consistent with Town goals and objectives for encouraging water-dependent uses and conserving and enhancing the environmental quality associated with Westbrook Harbor and waterfront.
- b. Support the continued and timely maintenance of navigation structures and facilities, including but not limited to the channels and anchorages of the Patchogue River Federal Navigation Project, to serve the needs of recreational and commercial vessels and to maintain the viability of existing and future water-dependent uses.
- c. Encourage the continued economic viability and enhancement of the commercial marina industry in Westbrook.
- d. Encourage and support water-based tourism activities and the associated economic, recreational, and other benefits of those activities in Westbrook.
- e. Make necessary adjustments in zoning districts and regulations to protect existing water-dependent land use.
- f. Maintain consistency and coordination between harbor management efforts and development and redevelopment plans affecting Westbrook Harbor.

5. Planning and Regulation of Waterfront Land Use

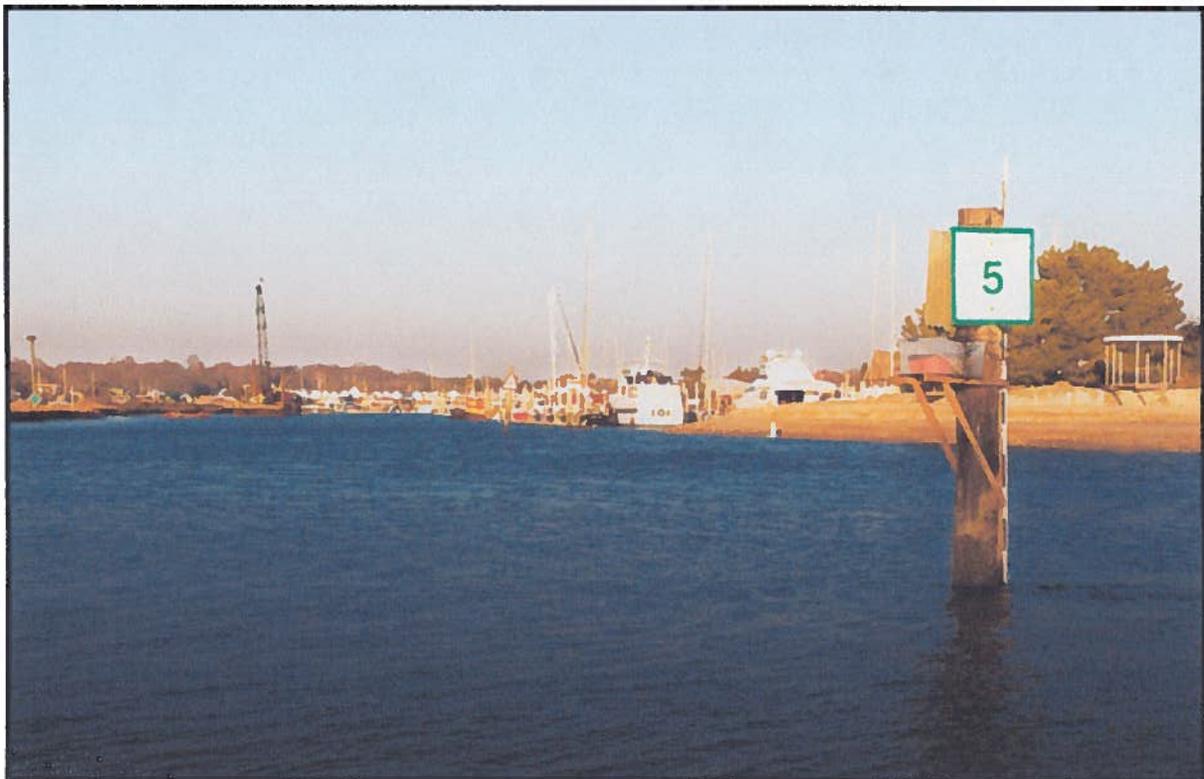
Plan for and support regulation of waterfront land use in a manner consistent with the capacity of the natural and man-made environment to support that use, and in coordination with the planning and regulation for use of Westbrook Harbor.

Objectives:

- a. Support beneficial water-dependent upland uses as components of mixed-use developments on the waterfront which add to the enjoyment of Westbrook waters as long as sufficient upland resources, including vehicular parking and restrooms to address the needs of residents and guests, are provided.
- b. Support beneficial upland uses on the waterfront which provide public access and supporting parking for use by Westbrook residents and residents of the State of Connecticut.
- c. Support beneficial upland uses which include preservation and enhancement of coastal resources including but not limited to tidal wetlands, beach and dunes as an important consideration in the development and use of waterfront properties.
- d. Encourage the development of useful public access facilities on a site-by-site basis through the Harbor Management Consistency Review process, coordination with the Westbrook land use boards and through consistency with the Westbrook Plan of Conservation and Development and the Westbrook Municipal Coastal Program.
- e. Support upland land uses that take protection and preservation of scenic vistas into consideration in their design.

6. Public Health, Safety and Welfare

Plan for, manage, and regulate use and development of Westbrook Harbor and waterfront to assure orderly and efficient use and to provide for the continued public health, safety, and welfare of the public.



Channel Marker at the Entrance to the Patchogue River at Pilot's Point

Objectives:

- a. Prohibit unauthorized encroachments into designated navigation channels, anchorages, fairways, and all other areas of Westbrook Harbor.
- b. Encourage and support the continued and timely maintenance of Westbrook's existing Federal navigation channels and anchorages, consistent with current and projected needs.
- c. Achieve optimum use of channel, anchorage, fairway and other navigation areas through implementation of area-specific water-use provisions and plans and the standards included in Chapter 8, Harbors, Boats and Watercourses, of the Westbrook Town Ordinances.
- d. Maintain navigation safety in Westbrook Harbor for visiting and resident recreational vessels, excursion boats, small non-motorized vessels such as canoes and kayaks, commercial vessels and all other vessels operating in Westbrook Harbor.
- e. Encourage and support effective enforcement of applicable Town, State and Federal laws and regulations to maintain boating safety in Westbrook Harbor.
- f. Avoid or reduce potential conflicts among vessels operating in Westbrook Harbor, including conflicts between motorized and non-motorized vessels, and conflicts between recreational and commercial vessels.
- g. Establish a registration and inspection program for town and privately-owned beach moorings so as to insure their safety, both for the user of the mooring and the general public.
- h. Provide facilities and services to support effective response to emergencies on, in, or contiguous to Westbrook Harbor, including water access facilities to accommodate emergency vessels and other emergency vehicles and equipment.
- i. Maintain public safety at waterfront public land and beach areas, Town-owned road endings, and other locations which provide access to the waters of Westbrook Harbor.
- j. Reduce or avoid the potential impacts of flooding and erosion in and around Westbrook Harbor.
- k. Plan and manage use of Westbrook's Harbor and waterfront in a manner consistent with the capacity of the harbor and waterfront to support that use without unacceptable impacts on public health, safety, and welfare.
- l. Achieve timely removal of any derelict, abandoned, or deteriorated vessels and structures from Westbrook Harbor.

7. Shoreline Erosion

Every reasonable, environmentally acceptable, and cost effective effort, consistent with the applicable policies and standards of the Connecticut Coastal Management Act and the CT DEEP/OLISP, should be made to reduce shoreline erosion within the boundaries of the entire Westbrook shoreline.

Objectives:

- a. New development or redevelopment on properties located on or near the waters of Westbrook Harbor shall implement soil erosion and sediment control consistent

with the requirements as established by the State of Connecticut and the Town of Westbrook.

- b. As a matter of practice, all graded or unstabilized areas of a property shall be minimized and stabilized as quickly as is feasible so as to avoid the transport of sediment or other debris into the waterways of Westbrook.
- c. Support efforts to preserve and protect Westbrook's fragile nearshore and islands and tidal marshes including the consideration of structural remedies and shoreline hardening to protect against storm and boat wake-induced erosion where non-structural methods are determined to be impractical with the understanding that non-structural solutions to flood and erosion problems are promoted except in those instances where structural alternatives prove unavoidable and necessary to protect inhabited structures constructed as of January 1, 1995, infrastructural facilities or water dependent uses.

8. Harbor and Shoreline Usage Growth

The Harbor Management Commission shall coordinate with other Town Departments, Commissions and Committees to allow continued appropriate growth and development to occur within the bounds of the applicable Ordinances and Regulations of Planning and Zoning and Harbor Management Commissions, as adopted by the Town of Westbrook. These regulations should manage further public shoreline development and should encourage more water-dependent uses and public access.

Objectives:

- a. promote flexible development patterns;
- b. preserve open space;
- c. encourage diverse development;
- d. encourage village development
- e. protect and restore important resources;
- f. preserve scenic character;
- g. enhance the built environment;
- h. monitor growth; and
- i. limit development in flood-prone coastal hazard areas

Development pressures have increased in all shore areas bordering the harbor. Residential development continues to occur along the Patchogue and Menunketesuck Rivers in areas where long private residential docks may create navigation challenges in those sometimes narrow waterways. Such docks may also create adverse impacts to coastal resources including tidal wetlands, intertidal flats and sub-aquatic vegetation. Through the use of Westbrook's channel lines, including a provision for waiver of such regulatory lines where necessary, the Harbor Management Commission can better manage those structures and those and other waters of the Town of Westbrook.

Access to Long Island Sound at the Town Dock has seen some improvement over the last few years. Following the 2012 dredging of the Patchogue channel from the river mouths up

to the Route 1 "singing bridge," waterway access from the Town Dock has been greatly improved. The ramp itself has also been repaved and the lighting has been improved. The stone breakwater ("rip-rap") off of Westbrook Town Beach continues to be used heavily by fishermen, birders, picnickers and sightseers. The parking area sees heavy use on sunny summer weekends, as well as by sightseers in the evening.

9. Boating Safety and Speed Limits

Boat speeds should be appropriate in order to provide a safe environment for all recreational pursuits. Regulation of speed limits within the Menunketesuck and Patchogue Rivers is essential to minimize erosion of tidal marshes while water skiing (where permitted), fishing, and boating. Speed limits, which apply throughout the year, are established and marked. Within Pilot's Point Marina, the DEEP Boating Division moors a patrol boat on a year-by-year basis and uses the Westbrook location as a home base for patrols up and down the Connecticut shoreline. Presently the speed limits are monitored by the Town Harbormaster and no chronic or serious violations of the "no wake" zone has been noted. Vigilance, however, is always required to ensure that all boat traffic in the congested river mouth area operates at safe speeds.

Although Pilot's Point Marina is home to a DEEP Marine Division patrol boat, there are no routine patrols of the area to enforce the no wake zone. However, should this become a problem, the speed limits should be enforced by town and state marine patrols to minimize damage to the sensitive shoreline areas and provide adequate safety in the high water-use areas of the harbor. It should be noted that any and all "rules" regarding vessel operation must be promulgated as ordinances to be enforceable and any such ordinances are subject to the approval of the Commissioner of DEEP (Section 15-136CGS).

Objectives:

- a. Enhance local efforts to enforce boating laws, including speed limits, by supporting the addition of town and state marine patrols in Westbrook Harbor waters.
- b. Seek additional funding, either through the Town budget process or through a grant process, to pay for the additional marine patrols in the waters of Westbrook Harbor.
- c. Support efforts by the Town or any other organization to acquire a marine patrol vessel that will be able to navigate north of Route 1 in order to properly enforce Commission policies and police department and boating safety laws in those upriver areas.
- d. Support the efforts of other Town agencies to acquire funding for enforcement of Commission policies and boating safety laws through the Town's budgetary process as well as through other means.

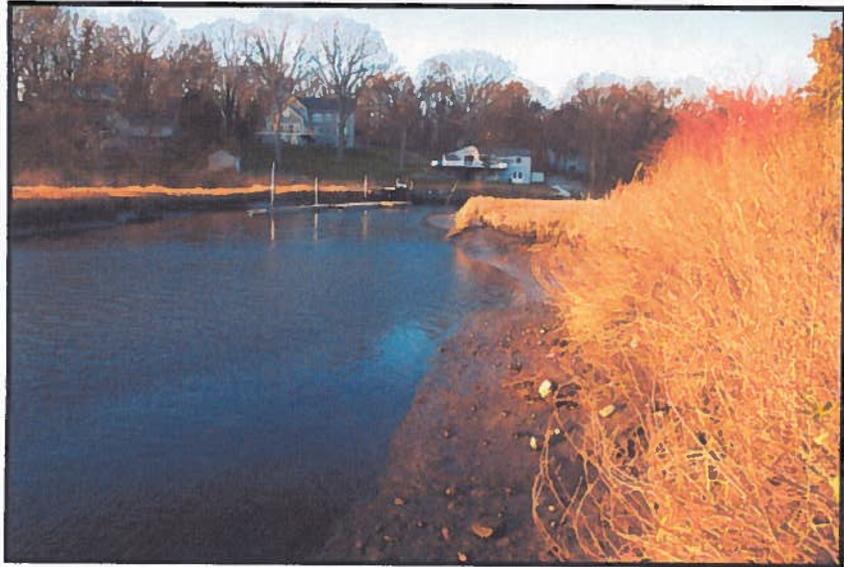
10. Navigation

Navigational challenges in the Westbrook Harbor come about primarily because of the narrow nature of the Menunketesuck and Patchogue Rivers. In addition, sedimentation of the river channels, especially at the river mouths at Pilot's Point creates a condition where channels shallow and narrow on a regular basis, requiring maintenance dredging. The photo below shows a particularly narrow section of the upper Patchogue River to the rear of the Theresa Mulvey

Municipal Center. The potential for navigational conflicts in this narrow river is evident as the Patchogue bends to the east near the existing dock to the rear.

Since 1984, the Westbrook Harbor Management Commission has regulated channel encroachments in the lower (south of Route 1) and the upper (north of Route 1) Patchogue River through the use of harbor encroachment lines adopted pursuant to Section 22a-360 of the state statutes. Although the accuracy of the surveyed lines is questionable in areas of the Patchogue north of Route 1, they will be retained as a regulatory tool in the Patchogue *south* of Route 1 because the lines are accurate in that area and continue to provide proper separation from the navigable portions of the channel. North of Route 1, however, the channel lines are less useful due to the erosion of river banks and the migration of the river's channel as well as the sinuous nature of the river path.

As a result, the Commission is replacing the ineffective harbor lines north of Route 1 with a site-by-site channel setback requirement that has been adopted into Section 8 of the Westbrook Town Ordinances. The objectives of modifying the regulatory tools used to preserve sufficient navigation, especially within the Patchogue River north of Route 1, is to insure that public and private encroachments into the waterways do not limit the public's right to navigate Westbrook waters and reduce riparian conflicts. Any boating regulatory markers must be permitted through the DEEP Boating Division.



Narrow channel at low tide in Area "D" of the Patchogue River

Objectives:

- a. Provide for safe and secure use of all waterfront areas within the Town of Westbrook.
- b. Work to insure that the waters of the Town of Westbrook remain fully navigable at all times.
- c. Provide adequate anchorage, mooring and dockage for the public.
- d. Avoid situations and conditions that create congestion in the waterfront area.
- e. Provide sufficient anchorage for transient boaters.
- f. Provide sufficient opportunities for commercial boating operations including commercial charters and fishing vessels.
- g. Prohibit moored or anchored vessels, fixed commercial fishing gear, other passive obstructions or sunken devices of any kind from within in any channels or fairways.
- h. Manage encroachments within Harbor Areas C and D within the upper Patchogue and Menunketesuck Rivers according to the methodology shown in Appendix "A" as adopted into Section 8-2 of the Westbrook Town Ordinances.

- i. Avoid the permitting of private residential docks which have conflicting locations on opposite banks of a channel or fairway within Harbor Areas C and D within the upper Patchogue and Menunketesuck Rivers so as to minimize restrictions to navigation. In addition and, whenever possible, promote dock locations where the longitudinal center line of structures on opposing banks are offset from each other by at least 25 feet.
- j. Insure that all regulatory markers are reviewed for authorization in writing (permit) by DEEP, OLISP and/or the USCG.

11. Shellfisheries

The Town's Shellfish resources should be protected by actively managing and preventing conflicts between docks, piers and moorings which may create adverse impacts on shellfish areas or interfere with shell fishing in approved, conditional recreational areas or licensed commercial areas. Shellfisheries within the Patchogue and Menunketesuck Rivers are being regulated and managed by the Westbrook Shellfish Commission and the Ad Hoc Shellfish Committee with regard to commercial harvesting, relaying, marketing, and the transferring of oysters for recreational harvesting. Recreational and commercial shellfishing in other areas is also regulated by permits, licenses and seasonal closures to reflect variations in water quality as a result of runoff or other factors in conditional areas. The State Department of Agriculture, Bureau of Aquaculture has expressed concern regarding potential contamination from the growing number of boats and septic systems in nearshore waters. See the Westbrook Shellfish Management Plan for specific details.

Objectives

- a. Support efforts by the Town or any other organization to acquire a marine patrol vessel that will be able assist in activities associated with the Westbrook Shellfish Commission or any other local organizations whose goal it is to preserve and enhance shellfishing in Westbrook Harbor waters.

12. Location and Distribution of Seasonal Moorings

The Westbrook Harbor Management Commission will continue with the implementation of a mooring administration program which fulfills the State requirements for registration and protects the rights of mooring owners while avoiding conflicts with shellfishing and other legitimate uses of the coastal resources.

At present, fifteen (15) moorings managed by the Town of Westbrook are located within the Federal Anchorage in the Patchogue River. It is open to all and there is a waiting list for the moorings. Thirteen (13) are privately held, one is a guest mooring for Duck Island YC, and one is a set-aside for transient boaters which has no charge associated with it. There is no charge to use the guest mooring. Standards governing the use of moorings in the Federal anchorage have been established in Sections 8-100, 101 and 102 of the Ordinances of the Town of Westbrook and are governed by Federal guidelines.

Westbrook Harbor also includes "beach moorings" located in shallow waters off of the towns' beaches. The beach moorings are privately held and there is currently no registration process for them. They are, however, governed by Section 8 of the Town Ordinances. The Harbor Management Commission is in the process of having the oversight of the beach moorings added to their responsibilities. In the recent past, the Westbrook Harbor Master began to require new applicants for moorings to send information regarding the placement of the moorings, identification of the mooring tackle type and size, and specific information regarding the boats that would be secured to such moorings. The Harbor Master has prepared an application form that applicants for beach

moorings will need to fill out in order to acquire a beach mooring permit. The Commission may allow such moorings to be placed without seasonal removal with such process and procedures being delegated to the Westbrook Harbor Master for oversight. At the present time, there is no charge anticipated for beach moorings, but that may change as time moves forward and as Commission fiscal needs dictate. It is estimated that there are approximately 75 to 100 beach moorings, with the majority being located along Westbrook's shorefront west of the mouth of the Patchogue and Menunketesuck Rivers.

For those applicants with vessels with out of state registration numbers displayed, if the vessel is to be moored within the Town of Westbrook waters for a total of 60 days or more in the course of a calendar year, by Connecticut state law, that vessel(s) must comply with State guidelines, thus it must display a Connecticut Use Decal, and must also meet all local, state and federal guidelines as a registered operating vessel.

However, all areas where seasonal mooring are currently in place are to be identified on a master map for locating and marking individual, non-commercial moorings. Permits for all such moorings will be necessary and shall be issued by the Town of Westbrook Harbormaster. (See CGS 15-1 and CGS Sec. 22a-113r) These activities shall be implemented through the participation of the local beach associations and the Westbrook Beach Council.

Recommendations may include planning for the establishment of a Town mooring field in the area of Duck Island. Although the mooring field may not be developed immediately, maps should be produced and approved which show the boundaries of the mooring field, if established. Current and proposed mooring fields will in all cases include space for transient moorings and anchorages.

Summarizing, there are approximately 120 private moorings both in the Menunketesuck and Patchogue Rivers and along the beaches on Long Island Sound. The mooring portion of this plan has the following main features:

Objectives

- a. Effectively administer the policies of this Plan by requiring that all mooring owners, including those with beach moorings, have valid permits with identification of the owner on the mooring buoy.
- b. Enforce that mooring permits *within the Federal Anchorage Area* are not transferable. This includes transfers within the family. When the holder of an individual mooring within the Federal Anchorage Area no longer keeps his or her boat on the mooring, the Harbormaster shall be notified by the holder, and the mooring will become available for reassignment from the waiting list. The permit holder may not lease or sell the mooring location. Spouses are automatically considered co-permittees.
- c. Further refine a registration/permitting procedure for beach moorings which includes the requirement for submission of registration forms which include information regarding the owner, the weight and type of mooring tackle and information regarding any boat that will be attached to the mooring. Owners of beach moorings who intend to allow others to utilize their beach moorings will be required to notify the Westbrook Harbor Master prior to such use, providing information regarding the type and size of boat that will be anchored to the mooring.
- d. Owners of waterfront property retain a long-standing legal right to access navigable water from their property. This plan gives shorefront owners precedence over other permit applicants for

one mooring (although they can hold more than one unless increased demand dictates otherwise) in adjacent waters, except within Federal Navigation Projects.

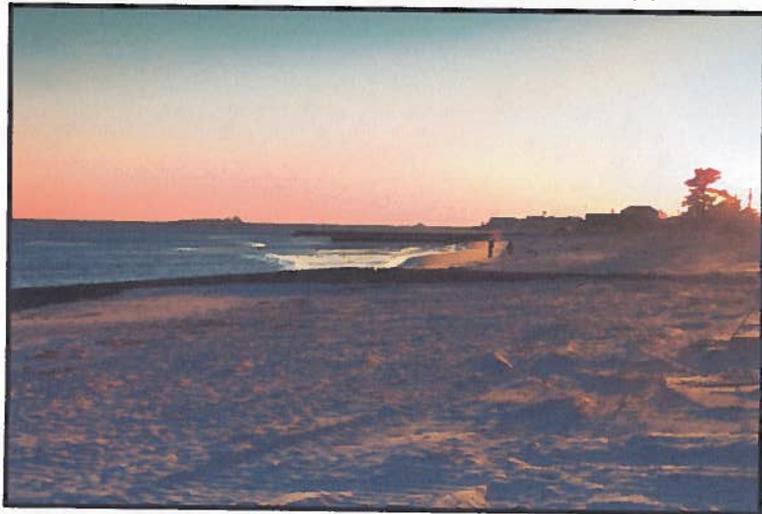
- e. **Mooring Fees:** Mooring fees, if enacted, will be used exclusively by the Commission and the Harbormaster for the administrative expenses of the plan ashore and afloat.

13. Public Access

The Town of Westbrook has a number of facilities for public access to the waters of Westbrook and Long Island Sound (Figure 12). Many of those areas are described as follows:

a. Westbrook Town Beach

The Westbrook Town Beach, located on Seaside Avenue (below), is the Town's primary public beach. With a small pavilion at its eastern end with several picnic tables, the facility provides passive opportunities for gathering in addition to those activities which traditionally occur in a beach setting. A long stone groin at the western end of the beach property provides opportunities for fishing and general site-seeing. The parking lot has space for approximately 150 vehicles.



Westbrook Town Beach during the Winter

The town's general goal for the Town Beach is to maintain this primary beach

facility in good shape, enhance the passive recreational opportunities and generally provide a safe and enjoyable gathering spot for Town residents and others while minimizing the impact of such activities on neighbors along Seaside Avenue. In that the facility provides nighttime opportunities for gathering, general goals include minimizing light and noise impacts that could occur at those times.

The Town looks to continue maintenance of this public access resource and to improve conditions there. Such improvements include, but are not limited to creating additional or improving existing access for passive activities while minimizing impacts on on-site and adjacent coastal resources. Maintenance of the area includes better management of limited parking resources as well as minimizing after-hour noise and light pollution that typically occurs at shorefront locations like the Town Beach.

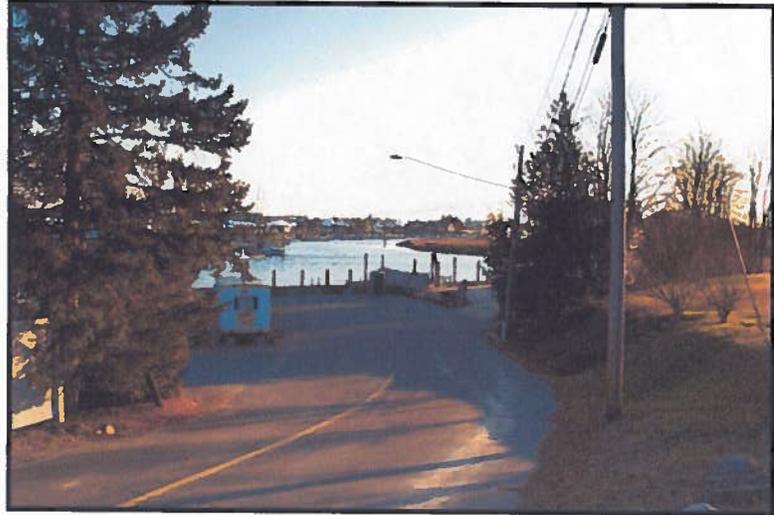
b. Middle Beach

Middle Beach, a town-owned property located further east of the primary town beach, is available for use by Town residents and others. The challenge for this beach is that there is limited parking available.

Westbrook's goal for Middle Beach would be to increase access opportunities while at the same time minimizing disruption of surrounding residents. This goal could be accomplished by improving the town Right of Way to include several gravel parking spaces.

c. Town Dock

The Town Dock is located at the southern end of Hammock Road South (below), terminating at the Patchogue River and is a primary point of access in the lower area of the two rivers. It is the closest public access located near the mouths of the Patchogue and Menunketesuck Rivers. The area is paved and is used primarily for viewing and fishing purposes. No boat access is available at the site. Public bathroom facilities in the form of a "porto-potty" and limited parking exists at the site. Future



View of Town Dock on the Patchogue River

improvements are contemplated to include improvement of bathroom facilities as well as utilizing better patrolling to control what can sometimes be conflicting uses. Like the Town Beach on Seaside Avenue, the Town Dock can be a popular congregation point where noise considerations can become an issue with surrounding residents.

The objective for the Town Dock is to maintain the facility and enhance what exists including the provision of bathroom facilities where possible. In addition, due to the popularity of the Town Dock and the sometimes conflicting uses that exist there, the Town should provide a more regular patrol of the area so as to maintain use of the facility for Town residents. Where practical, the Town should provide public bathroom facilities.

d. Fishing and Viewing Areas

In that the area of the Patchogue and Menunketesuck Rivers south of Route 1 is primarily accustomed to significant boating activity, there is a need to provide greater public access opportunities in the form of sites for fishing and scenic viewing opportunities and for the launching of personal watercraft and, to some extent, small motorized boats. Although there are several public access opportunities in the Patchogue River north of the Route 1, few truly "public" access locations are located between Route 1 and Long Island Sound. The Westbrook Harbor Management Commission intends to identify and pursue options for public access in the area south of Route 1 in order to enhance the few locations that currently exist.

e. Route 145 Boat Launch

The boat launch located at the Route 145 bridge over the Menunketesuck River (photo below) is a relatively underutilized access opportunity, primarily because of the lack of upland area for the parking of vehicles. Use of the site is primarily restricted to personal watercraft and some small



Route 145 Boat Launch, Menunketesuck River

motorized vessels. A goal of the Commission is to find ways to improve and enhance the upland parking facilities in order to provide more space for small boat access. Provision of limited and temporary bathroom facilities such as “portopotties” may be an option to consider as well.

The Westbrook Harbor Management Commission will recommend that the

Westbrook Public Works Department and the Connecticut Department of Transportation investigate the area of the Route 145 Right-of-Way at the bridge to determine if improvements including the placement of limited amounts of upland fill can be achieved in order to construct a small, well-designed parking area so as to provide more access opportunities in this location. Although water depths are limited in this part of the Menunketesuck River – especially during low tides – the Town should consider the construction of a small ramp and float in order to facilitate use by those with personal watercraft.

f. **Coral Sands Beach**

Coral Sands Beach is a relatively hidden public access area located near Pilot’s Point. Among other assets, it is considered an important access location for local shellfishing. The limitation of Coral Sands is that, like a number of other secluded public areas, it exists within a private neighborhood where little opportunity for automobile parking exists. The site, however, can be accessed by those on foot or on bicycle. A small ramp allows for easy access for pedestrians and those with small paddlecraft.

Objectives:

- a. Develop access including providing limited parking opportunities where available and as appropriate.
- b. Publicize the access opportunity so that more residents and others can enjoy direct access to the Westbrook waterfront.

14. **Private Residential Docks**

It is recognized that the concept of a waterfront landowners right to wharf out is often considered an absolute property right. However, this concept is derived from the early periods of colonization when the waterways were a major, and in some cases the only means of transportation. Water access was critical to commerce. Today most piers and docks proposed for the Town of Westbrook are solely for recreational use. Further, the significant increase in population density makes the absolute right to literally “wharf out” a major conflict with other uses of the waters of the state and may actually endanger the public’s natural resources. Therefore, the concept of wharfing out to

achieve “reasonable riparian access to navigable waters” is *changing*. In some areas reasonable riparian access can be achieved by non-structural measures. For example, “reasonable riparian access” may be obtained by launching a small boat from the shoreline without the need to construct a private dock or other structure in order to reach a boat moored in a safe, offshore, mooring area.

A public education program should be developed to explain the policies of the Westbrook Harbor Management Commission on the subject of private encroachments into public trust waters of the State of Connecticut. Such education will explain why private docks may be unsuitable on extremely exposed headlands or across sensitive marshes, dunes and beaches. Explanations should be provided illustrating other options for providing limited water access consistent with the need to protect the riparian rights of shoreline property owners.

Standards for All New Private Residential Docks

1. The following general standards will be applied to all new dock proposals in the Town of Westbrook:
 - a. The property owner should seek to locate new dock facilities as near as possible to the mid-point of the property shoreline whenever possible so as to avoid coastal resources such as tidal wetlands and subaquatic vegetation (SAVs) as much as possible so as to avoid or reduce resource impacts.
 - b. Docking facilities shall not be located closer than twenty five (25) feet to an adjacent property boundary, unless the CTDEEP determines that a lesser impact on tidal wetlands or other coastal resources will occur by locating such a structure closer to the property line, physical conditions prohibit other locations or if the adjacent landowners seek to apply for a shared dock.
 - c. Pier widths shall be four (4) feet in width or less and have a height above the marsh surface of at least the width of the pier so as to minimize the impacts of shading on tidal wetlands and other resources.
 - d. In the event that a private residential dock must be placed closer than twenty-five (25) feet to an adjacent property boundary, said dock shall, at minimum, adhere to zoning regulation requirements regarding sideline setbacks so as to not encroach on an adjacent property.
 - d. In general, no structure shall extend to more than $\frac{1}{4}$ of the width of any waterway as measured from Mean Low Water (MLW).
 - e. The waterward extent of any new dock structure or vessel secured to such structure shall not extend any closer than forty five (45) feet to any mooring registered with the Harbor Master.
 - f. In order to minimize adverse visual impacts, the following appearance standards shall apply to new and substantially modified docks:
 - (1) dock components such as pilings, handrails, and ladders shall not substantially raise the visual profile or bulk of the dock. Railings shall not have a height greater than necessary to provide for stability and safety and shall be, to the maximum extent possible, of see-through construction. Where possible, wires should be used between railing posts to reduce the visual impact of such railings.
 - (2) New docks shall be set back from the nearest adjacent dock to the maximum extent possible, with a minimum setback of 50 feet between docks unless a reduced setback is determined to be necessary to minimize resource or navigational impacts.
 - (3) Location, construction, and use of new dock infrastructure shall minimize adverse impacts on shellfish habitat, submerged aquatic vegetation, intertidal flats, and other

coastal resources. Where practical, dock structures shall be removed during the winter to facilitate shellfishing.

The following standards apply to new private residential docks proposed for construction in FEMA-designated V-zones as may be amended from time to time.

Proposals for boat access via a recreational dock are a common desire for waterfront property owners. Along the Long Island Sound shoreline of Westbrook in areas exposed to severe wave energy, construction of docks comprised of piers, ramps, and floats can be cause for concern. Not only are there economic and insurance issues associated with the damage to the owner's property but the debris may result in a hazards to navigation, damage to private property, and eventually a cleanup problem on another property. Perhaps most important, is the adverse impacts such structures may have on the scenic vistas that Westbrook beaches afford of Long Island Sound and nearby coastal resources. Due to the necessary construction standards and height, private residential docks built directly on Long Island Sound have detrimental public value as they can potentially block both views and public access along the beach.

The following objectives apply to proposals for private residential docks in such locations:

a. Riparian Access along Long Island Sound

Due to the adverse impacts that can be created when constructing and using a private residential dock along the shores of Long Island Sound, the Harbor Management Commission hereby defines such areas as those where "reasonable riparian access" is defined as that gained through the launching of a small boat from the shore. In this way, potential conflicts between those taking advantage of area held in trust by the State of Connecticut and private property owners will be minimized. Such conflicts include the blocking the view of scenic vistas of Long Island Sound and impeding or in some case preventing open public access along Westbrook beachfronts.

2. The following specific standards shall apply to docks in proposed in areas of sensitive coastal resources and habitats

a. Tidal wetlands are one of the most productive ecosystems in the world based on bio-mass output. Westbrook is fortunate to have many expansive areas of tidal wetlands along its tidal rivers and tributaries, in protected coves, and in backwater areas. Most of these areas are not conducive to recreational boating because culverts, tide gates or other physical obstructions block or partially obstruct boat access to open water. Boardwalks over tidal wetlands impact tidal wetlands through shading, direct placement of pilings, and may impact use of the wetlands by wildlife.

(1) Fixed timber piers traversing tidal wetlands shall be no wider than three (3) feet in width and shall be constructed of materials that will allow sunlight to pass through the pier so as to not significantly shade the vegetation underneath.

(2) The bottom of the supporting materials upon which the decking rests shall be elevated at least one (1) foot above the highest tidal wetlands vegetation when fully grown or be elevated above the marsh surface by a distance of at least the width of the pier.

- b. Intertidal flats are areas of gently sloping fine sediment inundated at high tide, but exposed at low tide. They are characterized by a thin layer of oxygenated sediment over anoxic material. This unique oxygenated/anoxic environment is critical to the health of the Westbrook's coastal waters and fauna. Floats and boats that repeatedly fall to rest on the intertidal flats disrupt the thin oxygen rich layer. Propeller action just above the intertidal flats further impact the sediment layers, which disrupts the biogeochemical processes unique to intertidal flats. Docks located in intertidal flats shall be designed such that:
- (1) Contact between float and boat bottoms and the mud and sand substrates is minimized to the greatest extent practicable. Where a floating dock is necessary and can be justified, the float must be supported by Stringers, legs and/or float stops; and
 - (2) The square footage of the float is no larger than necessary to provide safe use of a docked vessel.
- c. Submerged aquatic vegetation (SAV) in Connecticut coastal waters generally consist of eel grass beds located waterward of mean low water. While there are currently no known/mapped SAV areas in Westbrook, vegetation may emerge as Westbrook's coastal water quality continues to improve. Recent discovery of a small eel grass bed in Branford raises hopes that Westbrook waters will soon welcome the return of new SAV beds. SAV's are sensitive to pollution, shading, propeller action and mooring chain movement. The HMP policy regarding SAVs is to preserve and protect any areas of growth.
- (1) The location of floating docks shall be proposed so as to minimize potential adverse impacts (shading, propeller action, etc.) over any identified SAV areas.
- (d) Shellfish Beds shall be protected from impacts of docks both during construction and subsequent use. Location of docks, including floats, ramps and fixed piers, shall not impede access to shellfish beds to any great extent.

15. Dredging

Dredging of the Patchogue River federal navigation channel will continue to be an ongoing necessity as the years move forward. Maintenance dredging has been and will likely continue to be required every five to ten years within Westbrook Harbor, but especially within the mouth of the Patchogue and Menunketesuck Rivers. A way to extend the time period for the necessity of dredging is to implement efforts to reduce the source of silt and mud flowing into the waterways each year. This would mean greater coordination with Westbrook land use agencies on upland development immediately adjacent to the rivers in an effort to reduce the impacts of erosion and sedimentation. An effort will have to be made to enhance storm drain operation and to keep catch basin sumps clear of debris and mud that create by-pass of storm drainage and the resulting carrying of mud into the waterways.

Objective:

- a. The Commission may review development proposals to insure that adequate soil erosion and sediment control measures are implemented and maintained throughout a period of construction of a new or modified development, supporting efforts that will minimize soils or other debris from being transported into Westbrook harbor waters by storm water or any other method.

- b. The Commission may review development proposals to insure that ongoing operations, including marina and boat maintenance and other waterfront uses, provide Best Management Practices regarding disposal of materials that can pollute or otherwise adversely impact waterways and create an accelerated need for maintenance dredging.

16. Water Quality

The waters of Westbrook Harbor are classified by the State as SB - suitable for bathing, recreational uses, industrial cooling and certain shellfish harvesting. The area is a wildlife habitat and has aesthetic value.

Objective:

The Commission shall seek to manage the waters of Westbrook Harbor so as to maintain the existing water quality classification and support developments which will not create adverse water quality impacts in Westbrook Harbors.

17. Clean Marinas

The Westbrook Harbor Commission recommends that the Town and its twelve (12) marinas participate in the "Clean Marina" program in order to enhance clean water efforts to the greatest extent possible and to take advantage of various funding environmental funding opportunities that come with the "Clean Marina" designation. At present, Harry's Marine is the town's only participant in the Clean Marina program.

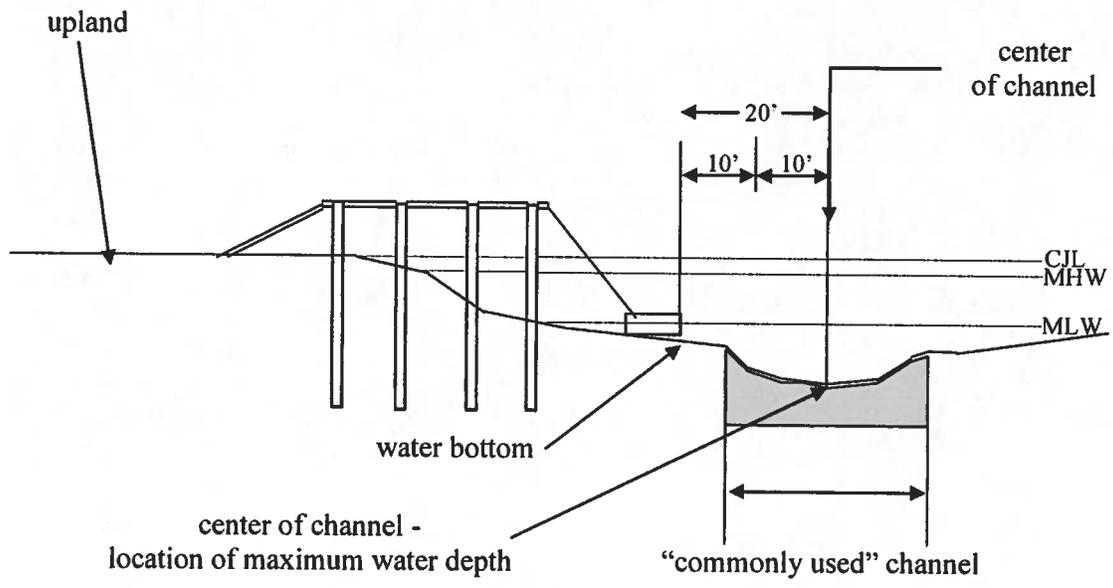
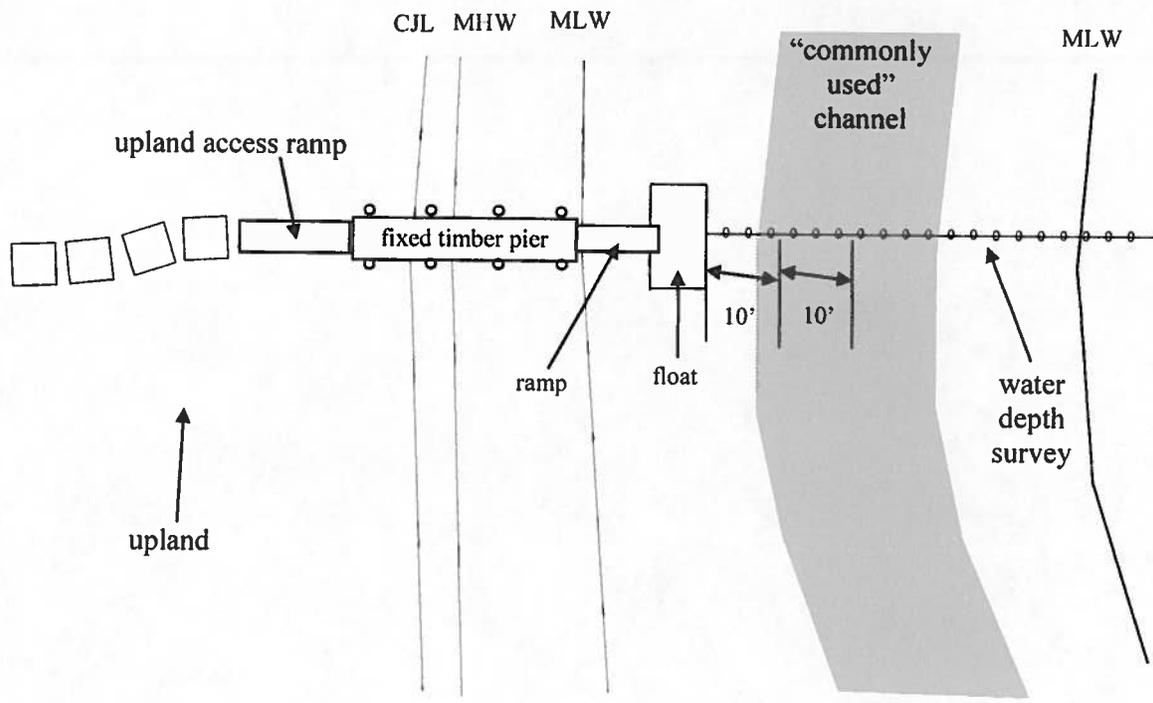
Appendix "A"
Channel Setbacks
Areas C and D

Since 1984, structures in the waters of the Patchogue River have been reviewed for consistency with surveyed harbor lines adopted by the Westbrook Harbor Management Commission and as shown on the map entitled "Town of Westbrook, Connecticut Establishment of Harbor Lines Dated: 3/13/84, Revised 8/1/84 Drawings No. 1 and 2 (now known as maps #1302 and #13030), David B. Mylchreest, revised 1/31/01 as set forth on a certain map entitled "Amendment to Harbor Lines, Carlson's Landing-Patchogue River-Westbrook, CT" Kilmartin-Ragan Associates Inc., Surveyors, together with a six page definitive document as hereto set forth entitled "Town of Westbrook Harbor Development Lines". A copy of the map entitled "Establishment of Harbor Lines" for areas of the Patchogue River north of Route 1 is included for reference purposes in Appendix B.

For the areas of both the Menunketesuck and Patchogue Rivers north of Route 1, encroachment of residential docks will be managed according to the method outlined in the following description and according to the accompanying drawing entitled "Channel Setbacks, Areas C and D". The methodology requires that the water depths of the entire channel opposite the proposed location of a residential dock be measured between the locations of the "coastal jurisdiction line" as established in §22a-359(c) CGS at an interval of no greater than five feet, thereby showing the depth profile of the channel and the location of the deepest portion of the channel. The terminus of any structure shall extend no further into the channel than a distance 20 feet from the deepest part of the channel as show on the depth profile. For the purposes of this methodology, it is the area of the greatest depths that is considered as the channel "fairway" in that location and the area from which the dock and a moored boat shall be excluded.

It is the intention of the Harbor Management Commission to allow "like" reconstruction of an existing *permitted* residential dock independent of the encroachment management methodology shown in Appendix "A". New residential docks, lengthened residential docks or reconstruction of existing *non-permitted* residential docks shall be required to be compliant with the methodology described in Appendix "A".

For the purposes of this encroachment management methodology, "permitted" shall mean that a State permit from the Department of Energy and Environmental Protection or its predecessors or successors has been issued for the structure and the structure is in compliance with all requirements of that permit or permits.

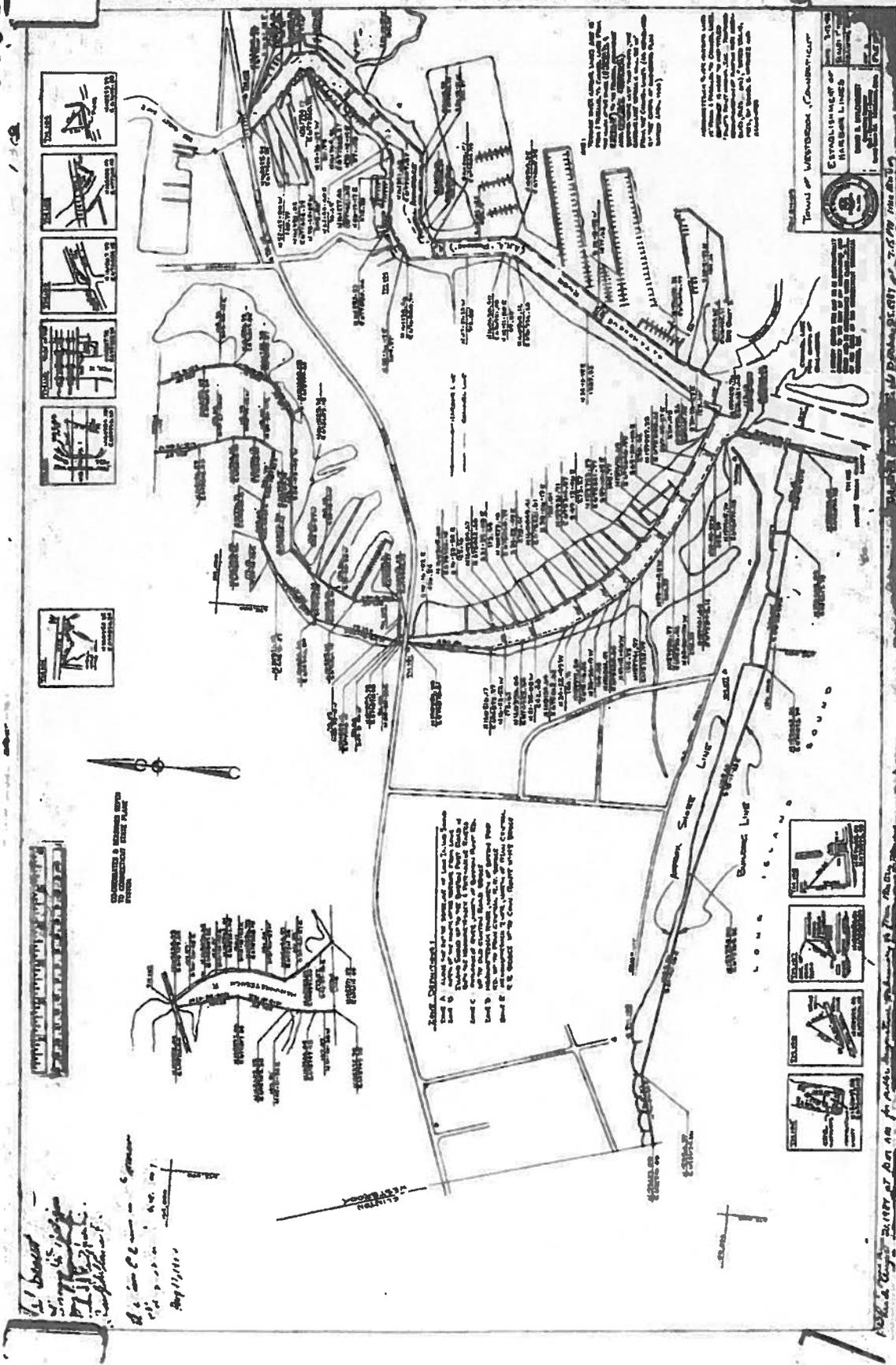


Westbrook Harbor Management Commission
 Town of Westbrook
 866 Boston Post Road
 Westbrook, CT 06499
www.westbrook.ct.us/harbormanagment

Appendix "A"
 Channel Setbacks
 Areas B, C and D

Appendix "B"
Town of Westbrook, Connecticut
Establishment of Harbor Lines
Dated: 3/13/84, Revised 8/1/84
Drawings No. 1 and 2 (labeled as #1302 and #1303)

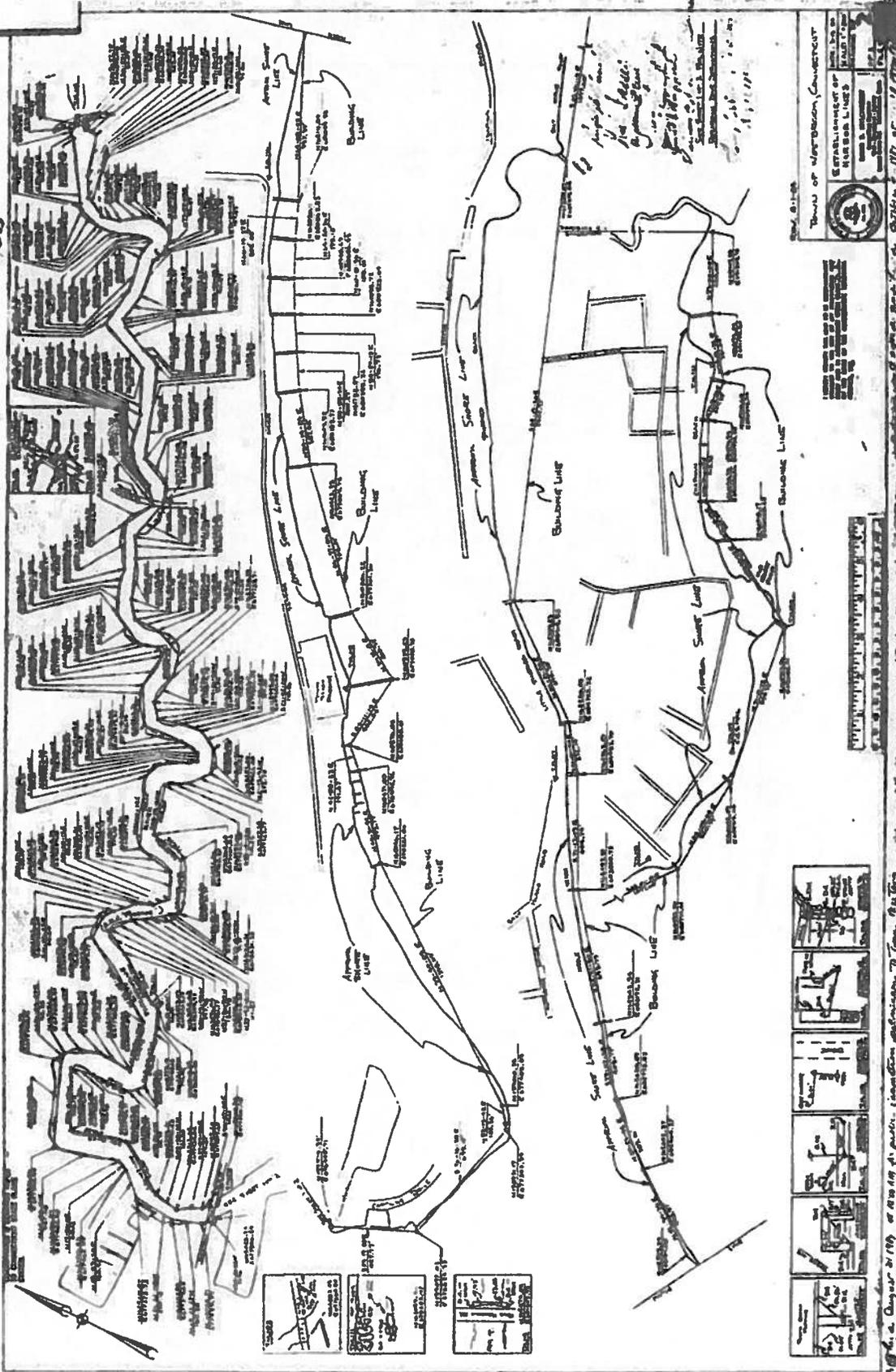
Up to the date of adoption of this Harbor Management Plan, encroachment of structures within the Patchogue River was managed according to the maps identified in Appendix B as Map 1 of 2 and Map 2 of 2. The regulatory harbor and channel lines will continue to be used to regulate structure encroachments in the area of the Patchogue River south of the Route 1 "singing" bridge, shown as Area "B" of the Patchogue River on Figure 1, Harbor Management Area. The surveyed harbor and channel lines located to the *north* of the Route 1 bridge in the Patchogue River in Areas "C" and "D" as shown on Figure 1 and as included on Maps 1 of 2 and 2 of 2 are hereby included in this Appendix for the purposes of reference and will no longer be used for purposes of regulating encroachments in Areas "C" and "D" of the Patchogue River. Encroachment of residential docks proposed within the Menunketesuck and Patchogue Rivers to the north of the Route 1 bridges will now be managed through the methodology described and shown in Appendix "A" of this Plan. A copy of the maps entitled "Establishment of Harbor Lines" will also be filed in the Records of the Westbrook Town Clerk.



Mylichrest Map 1 of 2

1303

303



Mylchrest Map 2 of 2