

Municipal Coastal Program



Old Saybrook, CT

PLAN OF DEVELOPMENT
FOR THE
TOWN OF OLD SAYBROOK, CONNECTICUT

DEVELOPMENT PROGRAM #4.13:

MUNICIPAL COASTAL PROGRAM

Development Program #4.13 is prepared under the provisions of Sec. 8-23, Sec. 22a-101 and Sec. 22a-102 of the Connecticut General Statutes and is made a part of the Plan of Development under PART FOUR: DEVELOPMENT PROGRAMS.

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TOWN OF OLD SAYBROOK, CONNECTICUT

OLD SAYBROOK PLANNING COMMISSION

September 1, 1982
Revised November 13, 1982

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I N T R O D U C T I O N

"The Coastal Management Act" for the State of Connecticut was adopted by the General Assembly in 1978 and amended in 1979.* The 1978 and 1979 enactments are basic, initiating statutes for coastal management; subsequent amendments have been and will be made. The intent of the Act is to assure the wise use, development and conservation of Connecticut's coastal resources.

Under the Act, Old Saybrook is one of 36 Towns, plus the waters of Long Island Sound, that constitute the "Connecticut Coastal Area". Within each Town, the Act establishes a "Coastal Boundary", which in general consists of a continuous line delineated on the landward extent of the 100-year frequency coastal flood zone, or 1,000 feet from the landward extent of mean high water and State designated tidal wetlands, whichever is farthest inland. The "Coastal Boundary Area" of Old Saybrook consists of all territory seaward of the Coastal Boundary.

The Coastal Management Act assigns to each Town the responsibility to conduct a "Coastal Site Plan" review of new site and building development projects occurring within the Coastal Boundary Area. The review evaluates each project for consistency with policies of the Act. There are exemptions from Coastal Site Plan review for minor projects.

The Coastal Management Act also enables each Town to prepare a "Municipal Coastal Program" that consists of features to be included in a Town's plan of development, zoning and other measures for local administration of land utilization. The Municipal Coastal Program primarily addresses the Coastal Boundary Area and is based on a) an identification and evaluation of local coastal resources, b) consideration of local problems, needs and issues within the Boundary and c) local goals and policies for the Coastal Boundary Area. Coastal policies in the Act are guidelines for the Municipal Coastal Program, and the Program can interpret the local applicability of the Act and bring local plans, zoning and other development administration measures into consistency with the Act.

This document constitutes that part of the Old Saybrook Municipal Coastal Program for which the Old Saybrook Planning Commission has responsibility. Such responsibility is part of the general planning function of the Commission under Chapter 126 of the Connecticut General Statutes, and this document is prepared under the provisions of Sec. 22a-101 and Sec. 22a-102 (Chapter 444: Coastal Management) of the Statutes. The Old Saybrook Zoning Commission has responsibility for any zoning features of the Municipal Coastal Program.

The Plan of Development for the Town of Old Saybrook, Connecticut was adopted by the Planning Commission effective April 23, 1971. That Plan, which is in the process of being reviewed and updated, makes provision for special supplements known as "Development Programs". This Municipal Coastal Program document is prepared as such a supplement to be known as —

DEVELOPMENT PROGRAM #4.13: MUNICIPAL COASTAL PROGRAM

* Connecticut General Statutes (CGS), Sec. 22a-90 through 22a-112, as amended by PA 82-250.

It is an attachment to the Plan for the Town and has the effect of adding information, clarifications, policies, goals and other recommendations with special reference to Old Saybrook's coastal resources and the Coastal Boundary Area of the Town.

Development Program #4.13: Municipal Coastal Program has been designed as a comprehensive approach to the coastal resources and issues in Old Saybrook and has the following parts:

- INVENTORY OF COASTAL RESOURCES

A formal identification and definition of those coastal resources which are found in Old Saybrook.

- COASTAL BOUNDARY STUDY AREAS

A review of coastal related conditions, and problems, concerns and alternatives, in 20 segments of the Coastal Boundary Area.

- SUMMARY OF COASTAL ISSUES - DIRECT

From the inventory and the review of Study Areas, a summary of principal coastal related issues in Old Saybrook.

- GENERAL TOWN DEVELOPMENT ISSUES

A brief review Townwide features of population, housing, economic development and transportation that have a bearing on the Coastal Boundary Area.

- COASTAL GOALS

Ten (10) goals for the wise use, development and conservation of coastal resources in Old Saybrook, including the basis for each, guiding policies and specific proposals.

- ADMINISTRATION

Initial identification of agencies responsible for administration of Coastal Goals and a listing of Federal, State and Town agencies involved in coastal management.

- CITIZEN PARTICIPATION

A review of steps taken to generate participation in the Program, and responsibilities for future participation.

- TECHNICAL SUPPLEMENT #1: Modification of Plan of Development

Particular amendments to the main body of the Plan of Development to reference the Coastal Boundary Area and modify items inconsistent with coastal policies.

- TECHNICAL SUPPLEMENT #2: Zoning Proposal

General recommendations for modification of zoning; to be considered by the Zoning Commission.

- TECHNICAL SUPPLEMENT #3: State Coastal Policies

For reference purposes, selected excerpts from the Coastal Management Act, giving coastal policies as adopted by the Connecticut General Assembly.

An overall Municipal Coastal Program for Old Saybrook necessitates a joint effort by the Planning Commission and Zoning Commission. Other agencies and groups such as the Board of Selectmen are involved. As part of the initial steps to prepare this Development Program #4.13, the Planning Commission assembled a Coastal Program Committee of interested and knowledgeable citizens who conducted working meetings and field trips to identify coastal problems, issues and needs.

This DEVELOPMENT PROGRAM #4.13: MUNICIPAL COASTAL PROGRAM may be adopted by the Old Saybrook Planning Commission, after due notice and public hearing as required by Sec. 8-23 of the Connecticut General Statutes. The Development Program then becomes part of the Plan of Development, which is the overall guide for change, growth and preservation activities in the Town.

I N V E N T O R Y O F C O A S T A L R E S O U R C E S

"Coastal Resources" are defined in the Connecticut Coastal Management Act and consist of the following:

- | | |
|--|----------------------------------|
| A. coastal bluffs and escarpments | H. coastal hazard areas |
| B. rocky shorefronts | I. developed shorefront |
| C. beaches and dunes | J. island |
| D. intertidal flats | K. nearshore waters |
| E. tidal wetlands | L. off-shore waters |
| F. freshwater wetlands and water courses | M. shorelands |
| G. estuarine embayments | N. shellfish concentration areas |

Each of these coastal resources is described or defined on ATTACHMENT #1.

Primary sources for identification of coastal resources, conditions and features in Old Saybrook are as follows:

Connecticut Coastal Management Program maps, 1" = 2000', 1979, Old Lyme and Essex, Conn. quadrangles:

- a. "Coastal Resources".
- b. "Shellfish Concentration Areas".
- c. "Soil Survey ...".
- d. "Surficial Geology Map ... with Shoreline Erosion Information Added ...".
- e. "Shoreline Changes" (1838 - 1952).

Town of Old Saybrook

- * f. "Coastal Boundary", 1" = 1000', adopted by the Old Saybrook Planning Commission on July 14, 1982 and approved by the Connecticut Commissioner of Environmental Protection on August 2, 1982.
- g. 1" = 400' inventory map in three parts showing selected coastal resources, land use, public and private reservations and structural features.

Other

- h. "Flood Insurance Rate Map, Town of Old Saybrook, Connecticut, Middlesex County", July 3, 1978, by Federal Insurance Administration.
- i. aerial photography (Town and State CAM verticals and Town and State CAM oblique color slides).
- j. U. S. Geological Survey, 7.5 minute series (topographic) Old Lyme and Essex, Conn. quadrangles.
- k. Nautical Chart - Connecticut River, Long Island Sound to Deep River, NOAA, July 28, 1979.
- l. "Engineering Report: Wastewater Facilities Plan for a Sewer Avoidance Program for the Town of Old Saybrook, Connecticut", dated September, 1979, Revised March, 1980, prepared by Malcolm Pirnie, Inc., Consulting and Environmental Engineers.

All of the above, with the exception of Items "f", "g" and "h", are published, readily available maps and documents. All are available for inspection in the records of the Old Saybrook Planning Commission and are incorporated in this document by reference.

* See also Map #1 in this document for depiction of Coastal Boundary.

COASTAL RESOURCES - DESCRIPTION AND DEFINITION

Coastal Resources means 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; coastal resources include the following:

- A. coastal bluffs and escarpments means naturally eroding shorelands marked by dynamic escarpments or sea cliffs which have slope angles that constitute an intricate adjustment between erosion, substrate, drainage and degree of plant cover;
- B. rocky shorefronts means shorefront composed of bedrock, boulders and cobbles that are highly erosion-resistant and are an insignificant source of sediments for other coastal landforms;
- C. beaches and dunes means beach systems including barrier beach spits and tombolos, barrier beaches, pocket beaches, land contact beaches and related dunes and sandflats;
- D. 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;
- E. tidal wetlands means "wetland" as defined by section 22a-29 (Connecticut General Statutes);
- F. freshwater wetlands and water courses means "wetlands" and "water courses" as defined by section 22a-38 (Connecticut General Statutes);

- G. estuarine embayments means 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;
- H. coastal hazard areas means 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, as amended (U.S.C. 42 Section 4101, P.L. 93-234) and all erosion hazard areas as determined by the commissioner (Connecticut State Commissioner of Environmental Protection);
- I. developed shoreline means those harbor areas which have been highly engineered and developed resulting in the functional impairment or substantial alteration of their natural physiographic features or systems;
- J. island means land surrounded on all sides by water;
- K. nearshore waters means the area comprised of those waters and their substrates lying between mean high water and a depth approximated by the ten meter contour;
- L. offshore waters means the area comprised of those waters and their substrates lying seaward of a depth approximated by the ten meter contour;
- M. 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;
- N. shellfish concentration areas means actual, potential or historic areas in coastal waters, in which one or more species of shellfish aggregate.

C O A S T A L B O U N D A R Y S T U D Y A R E A S

For the purpose of identifying and organizing coastal resource information, the Coastal Boundary Area of Old Saybrook has been divided into 20 "Study Areas". Each Study Area encompasses a natural sub-system of interrelated coastal resources, but the boundaries between Study Areas are not necessarily precisely defined.

Map #1 entitled "Coastal Boundary and Study Areas", dated September 1, 1982, identifies the Coastal Boundary as well as the Study Areas by code (A-1, A-2, B, etc). ATTACHMENT #2 provides a comprehensive listing of coastal resources occurring in each Study Area. For reference purposes, a copy of the "Zoning Map of the Town of Old Saybrook, Connecticut", as amended to August 14, 1979, is incorporated in this document.

In text which follows, the following information is provided for each Study Area:

1. a brief description of existing land uses, coastal resources, physical conditions, zoning and other features that may be significant for consideration of coastal issues and goals; and
2. a summary of coastal problems, concerns and opportunities particularly applicable to the circumstances of the Study Area.

Upon completion of the review of each Study Area, a summary of coastal issues, having a direct bearing upon the Coastal Boundary Area, is provided.

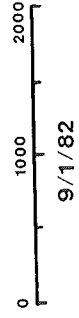


Coastal Boundary and Study Areas

TOWN OF OLD SAYBROOK, CONNECTICUT

MAP # 1

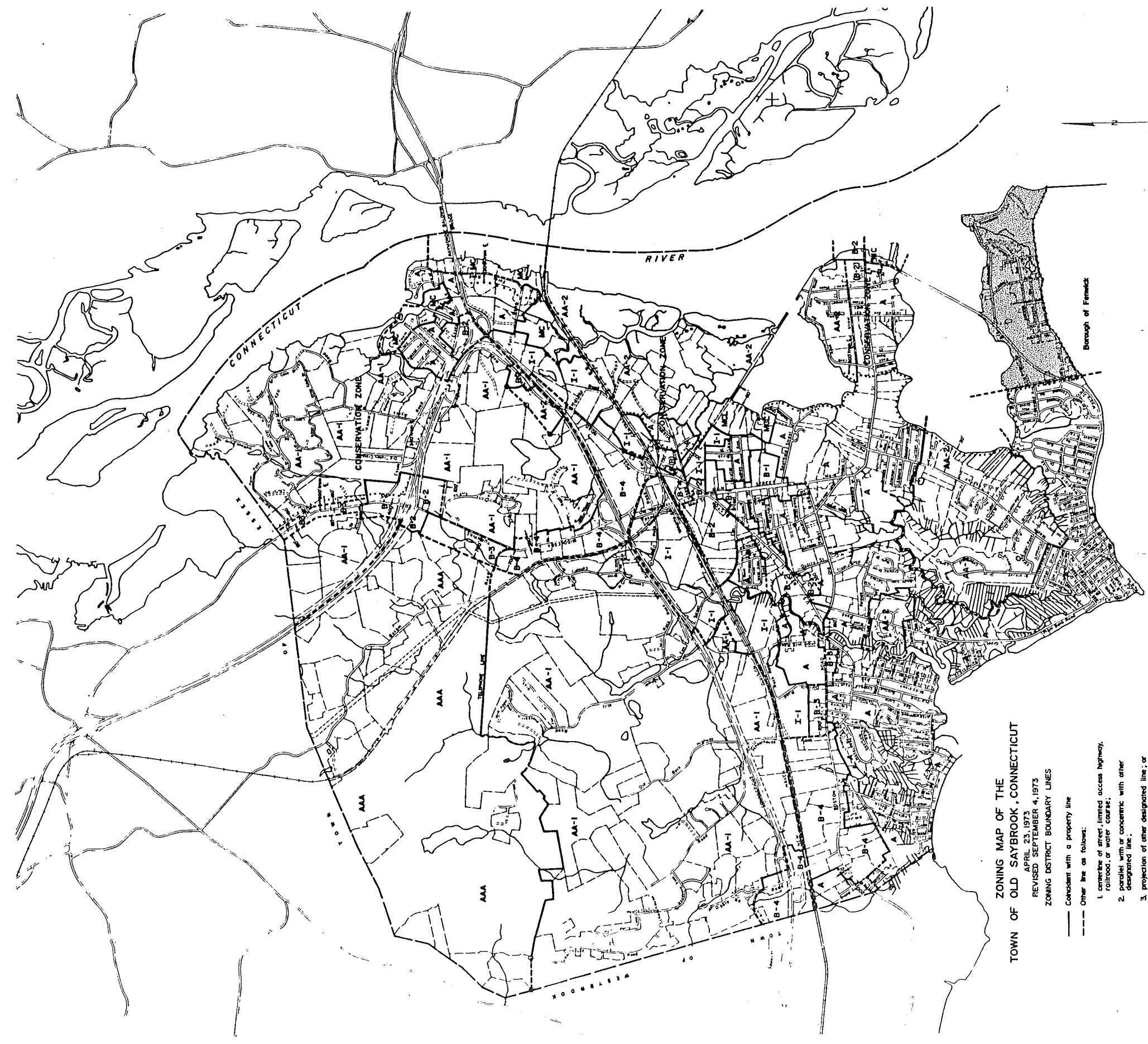
Old Saybrook Planning Commission



Robert S. Bryan & Associates

9/1/82

TOWN OF OLD SAYBROOK, CONNECTICUT



**ZONING MAP OF THE
TOWN OF OLD SAYBROOK, CONNECTICUT**
APRIL 23, 1973
REVISED SEPTEMBER 4, 1973
ZONING DISTRICT BOUNDARY LINES

- Consistent with a property line
- - - - - Other line as follows:
 1. centerline of street, limited access highway, railroad, or water course;
 2. parallel with or concentric with other designated line;
 3. projection of other designated line; or
 4. straight line connecting designated points

NOTES: 1. Zoning district boundary lines parallel or concentric with streets are measured from the right-of-way line of the street.
2. For additional zoning district boundary information, see also any Supplementary Map and boundary descriptions.
3. The Condominium District is coterminous with the Residence A District.

ADOPTED EFFECTIVE: OCTOBER 15, 1973
AMENDED EFFECTIVE: December 16, 1974
June 26, 1975
September 23, 1976
August 9, 1977
June 12, 1979
August 14, 1979

4. Connecticut River Gateway "Conservation Zone" boundary shown; boundary adopted and amended by Conn. General Assembly.

OLD SAYBROOK ZONING COMMISSION
BRYAN B PANICO, Community Development Services
The preparation of this map was financially aided by a grant from the State of Connecticut, Department of Community Affairs



Scale in Feet
JUNE, 1976

ATTACHMENT #2

COASTAL RESOURCES BY COASTAL BOUNDARY AREA

Coastal Resources	A-1	A-2	A-3	A-4	B	C-1	C-2	C-3	D	E	F	G	H	I	J-1	J-2	J-3	K-1	K-2	K-3	
	Chaiker Beach	Cold Spring Brook	Mud/Hager Brook	Indiantown/Saybrook Manor	Oyster River	Great Hammock Beach	Plum Bank Beach	Back River/Plum Bank Creek	Cornfield Pt. to Guardhouse Pt.	Fenwick	South Cove	Saybrook Point	North Cove	Ragged Rock Creek	River Front	River Front-Interior	Ferry Point	Hydes Point Creek	Otter Cove	Detch Pond	
A. coastal bluffs and escarpments				X mE					X mE	X mE											
B. rocky shorefronts									X												
C. beaches and dunes	X mB			X		X	X mB		X	X B/mB											
D. intertidal flats	X			X	X	X	X		X					X							
E. tidal wetlands		X	X	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X
F. freshwater wetlands and water courses		X	X		X			X		X			X	X		X	X	X	X	X	X
G. estuarine embayments		X	X		X		X			X	X	X	X	X	X	X	X	X	X	X	X
H. coastal hazard areas	X V7	X V7	X V7	X V7	X V7	X V7	X V7	X V7	X V7	X V7	X	X V7	X	X	X	X	X	X	X	X	X
I. developed shorefront												X									
J. island																					
K. nearshore waters	X			X		X	X	X	X	X											
L. offshore waters	X			X		X	X	X	X	X											
M. shorelands		X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X
N. shellfish concentration areas				X		X	X	X			X	X		X							

11/13/82

- NOTES: 1. mE, modified Bluffs and Escarpments: bluffs and escarpments which have been temporarily stabilized by erosion control structures (revetment, bulkhead or seawall) positioned seaward of the marine cliff or escarpment.
2. mB, modified Beaches and Dunes: beach systems temporarily stabilized by an erosion control structure (revetment, bulkhead or seawall) positioned between the dune ridge and the beach.
3. V7, Coastal High Hazard Areas: areas susceptible to 100-year coastal flooding with velocity (wave action)

AREA A-1: CHALKER BEACH

A-1 consists of 2,800 feet of modified beach (mB) at the shorefront, extending from a wall groin at Cold Spring Brook to Chapman Point; a compact development of seasonal and year-round dwellings extends inland. The beach is modified by dwellings on the beach and seawalls. Back of the beach is artificially filled land for streets and cottages, and beyond development occurs on end moraine. There are intertidal flats near Cold Spring Brook.

The natural condition of the beach, prior to filling and development, appears to have been as a barrier beach in front of the Cold Spring and Mud Creek tidal marshes. Beach erosion drift is from west to east. To address a problem of maintaining sand, several short jetties and groins have been built across the beach. Three (3) private community beaches are owned by the Chalker Beach Association, Belaire Manor Beach Association and Indiantown Association. There are two (2) public street ends or passways to the beach; otherwise the beach is subdivided in 48 separate lots, most containing dwellings.

The entirety of A-1 is a coastal hazard area, and the shorefront to about 200' north of Beach Road (East and West) and Belaire Drive is a coastal hazard area with velocity (wave action). A-1 is in the Residence A District on the Zoning Map; a minimum lot size of 20,000 square feet is applicable with public water supply. Few, if any, lots are conforming.

The western portion of A-1, extending well inland, is designated as an area where sanitary sewers are recommended. A possible site for a community septic field area has been identified north of the Boston Post Road. A portion of A-1 dwellings have been converted for year-round occupancy.

Problems, Concerns and Opportunities

1. Coastal hazards, including wave action near the shorefront, are a potential threat to life and property, and in an area that has been converting to year-round occupancy. There appears to be no feasible or acceptable structural solution if enjoyment of the beach and views is to continue. Continuing applicability of flood plain management standards is a necessity.
2. Sanitary sewers are intended to protect public health, and avoid pollution of the groundwater and tidal marshes. Sewering can induce growth in the service area — intensification of use, year-round occupancy, larger buildings and construction on vacant parcels — in a coastal hazard area and toward the water, on the beach. Intensification may be inconsistent with coastal policies.
3. Beach erosion is a continuing concern for which a plan of maintenance and restoration may be needed.

AREA A-2: COLD SPRING BROOK

A-2 consists of a tidal creek extending from the Sound to two State regulated tidal wetlands areas totalling about 38 acres (part in the Town of Westbrook). There are about 12 acres of Town regulated inland wetlands upstream from the marsh. At the mouth of Cold Spring Brook are protective groins and walls. Adjacent to the wetlands are the densely built-up areas of A-1, including the "sewers recommended area", and built-up areas in Westbrook. A peninsula of till and outwash soils separates the two tidal wetlands and is occupied by a project of multiple dwellings. Part of A-2 plus the contributing watershed extends inland to include commercially zoned and developed property along U. S. Route #1; tidal and inland wetland fingers extend to the rear of commercial areas. The coastal hazard area extends well inland toward U. S. Route #1 and, via Cold Spring Brook, includes a section north of Route #1 nearby dwellings and a convalescent hospital.

On the Zoning Map, the General Business B-4 District (retail, services, distribution, manufacturing), covers the Route #1 frontage but extends southerly by 1,300' or more to an abandoned trolley line and covers inland wetlands in A-2. Noncommercial portions of A-2 are in the Residence A District.

Problems, Concerns and Opportunities

1. Wetlands, while regulated, will require continuing watch to avoid filling or pollution. Areas adjacent are not fully subdivided or settled; new construction can be a source of erosion and sedimentation. Commercially zoned land overlaps wetlands and is in the drainage basin. Land values and use intensification can be expected to increase. It will be appropriate to re-examine the adequacy of commercial development and site construction standards in A-2 with regard to uses, wetlands setbacks, erosion control, ground coverage and drainage runoff controls.
2. Recreation boating use of the tidal creek may be possible to a very limited extent. Any boating access should not disturb the wetlands; slips constructed in dry land appear unlikely; a launching ramp may be possible.
3. Having coastal hazard areas, continuing applicability of flood plain management standards is a necessity.

AREA A-3: MUD/HAGAR BROOK

A-3 consists of a tidal creek area having a small protected harbor, tidal flats and shellfish concentration area at the mouth (see also Area B). Inland the creek involves about 77 acres of tidal wetlands (the majority is owned by the

State of Connecticut, Town of Old Saybrook, Indiantown Association and Old Saybrook Land Conservancy) and 27 acres of inland wetlands up stream. The tidal wetlands border densely built-up "sewers recommended" residential areas, including those in A-1 and A-4.

The harbor is maintained by the Indiantown Association and is protected by jetties extending from association land. The west shore is a modified beach (mB) with groins. There are docking walls near the Nehantic Trail access to Chapman Point. Small boats also use the creek to individual private tie-ups.

The coastal hazard area covers most of A-3; the Chapman Point built-up section is a velocity (wave action) hazard area. The flood plain extends over the marsh and inland wetlands to commercial areas along and north of U. S. Route #1.

A-3 is in the Residence A District on the Zoning Map, except along Route #1 and north to the railroad where General Business B-4 District is applicable.

Problems, Concerns and Opportunities

1. Sanitary sewers have been recommended in the Meadowood Lane section and in adjacent portions of A-1 and A-4 and are intended to protect public health as well as the marshes and groundwater quality. Tidal wetlands appear to cover privately owned and subdivided lands between A-3 and A-4, where sewers could enable or lead to development proposals.
2. Limited recreation boating use of the creek may be possible. There could be sites for launching ramps or slips on dry land without disturbing the marsh. The bridge to Chapman Point is a constriction. Further use and development of the harbor may be possible, but if dredging is involved, would be inconsistent with maintenance of tidal flats and shellfish concentration areas (see also Area B).
3. Having coastal hazard areas, continuing applicability of flood plain management standards is a necessity.
4. Wetlands, while regulated, will require continuing watch to avoid filling or pollution. Some areas adjacent are not fully settled (see #1 above). Commercially zoned land overlaps wetlands along and north of Route #1. It will be appropriate to re-examine the adequacy of commercial development and site construction standards with regard to uses, wetlands, setbacks, erosion control, ground coverage and drainage runoff controls.

AREA A-4: INDIANTOWN/SAYBROOK MANOR

A-4 contains a 2,200' shorefront extending from Mud Creek to Oyster River and consisting of beach, coastal bluff and escarpment (mE) modified by building construction and a small area of tidal wetlands. Intertidal flats and shellfish concentration areas are off-shore. Inland, there is a densely built-up area of seasonal and year-round dwellings for which sewers are recommended. This development has occurred on artificial fill, end moraine and till. Community septic field sites have been identified north of U. S. Route #1 (same as for A-1) and north of the railroad.

All of A-4, except three or four small pockets, is a coastal hazard area. Velocity hazard (wave action) pertains to the shorefront and extends about 200' in from Red Bird Trail. A nob at the shorefront stands above the coastal hazard.

The beach or shorefront includes four community beaches that are owned by the Indiantown Association, Saybrook Manor Association (2) and Saybrook Manor Cove Association. There are walls along the shorefront and groins or jetties across beaches. A majority of the shorefront is owned as house lots. There are three public street road ends giving access to the water.

All of A-4 is located in the Residence A District on the Zoning Map. A minimum lot size of 20,000 square feet is applicable with public water supply. Few, if any, lots are conforming. On the east and west sides, undeveloped territory that is regulated tidal wetlands is subdivided in streets and lots.

Problems, Concerns and Opportunities

1. Coastal hazards, including wave action near the shorefront, are a potential threat to life and property, and in an area that has been converting to year-round occupancy. There appears to be no feasible or acceptable structural solution if enjoyment of the beach and views is to continue. Continuing applicability of flood plain management standards is a necessity.
2. Sanitary sewers are intended to protect public health and avoid pollution of the groundwater and tidal marshes. Sewering can induce growth in the service area — intensification of use, year-round occupancy, larger buildings and construction on vacant parcels — in a coastal hazard area and toward the water and on the beach. Intensification may be inconsistent with coastal policies.
3. Beach erosion is a continuing concern for which a plan of maintenance and restoration may be needed.

AREA B: OYSTER RIVER

The Oyster River watershed covers about 40% of the Town of Old Saybrook, including about 80% of Town north of the Connecticut Turnpike and west of Route #9. That portion of the Oyster River watershed within the Coastal Boundary is Area B and consists of a) a tidal creek having shellfish concentration near the Sound, b) about 105 acres of State regulated tidal wetlands and c) about 23 acres of Town regulated inland wetlands up stream. At the mouth of the River are inter-tidal flats, Indiantown Harbor and about 106 acres of shellfish concentration area. (reference also A-3, A-4 and C-1).

Although the Oyster River is shallow, there is some amount of small boat recreation activity. Most of the edge of the River is classified as tidal wetlands, however.

A major feature of Area B is that the Oyster River and tidal wetlands system pass adjacent to built-up residential areas of Saybrook Manor and along Great Hammock Road and then extend through and about the commercial and industrially zoned areas at U. S. Route #1, the railroad and the Connecticut Turnpike. It is by this River and wetlands system that the coastal hazard area is extended to the economic activity areas of the Town.

South of Route #1, the west side of Area B is in the Residence A District on the Zoning Map (20,000 square foot lot requirement with public water supply); the A and AA-2 District on the east side impose the same standards. Restricted Business B-3, Shopping Center Business B-2 and Industrial I-1 Districts are the applicable nonresidential zones from Route #1 upstream.

Problems, Concerns and Opportunities

1. Having coastal hazard areas, continuing applicability of flood plain management standards is a necessity. Flood hazard considerations, however, will also include runoff from above the Coastal Boundary. The bridge at Route #1 is a key east-west link for emergency services, although the Connecticut Turnpike is an available alternate. Flood elevations can affect not only dwellings but high value commercial properties, equipment and inventory.
2. Wetlands, while regulated, will require continuing watch to avoid filling or pollution. Areas adjacent are not fully subdivided or settled; new construction can be a source of erosion and sedimentation. Commercially zoned land overlaps wetlands, and land values and use intensification can be expected to increase with the population and economic growth of the Town. It will be appropriate to re-examine the adequacy of commercial development and site construction standards with regard to uses, wetlands setbacks, erosion control, ground coverage and drainage runoff controls. Industrial waste and sewage disposal will need management to avoid pollution of the marshes as well as streams and groundwater.

3. The shellfish concentration areas have been subject to pollution and overcrowding. Shellfish have recently been taken for transplant and cleansing at other locations before being marketed. The viability and best management of this shellfish areas needs further investigation.
4. Recreation boating use of the tidal creek may be possible to a very limited extent. Dredging to improve the channel, however, may be consistent with maintenance of shellfish areas. New boating access should not disturb the wetlands. Launching ramps similar to that at Route #1 may be possible.

AREA C-1: GREAT HAMMOCK BEACH

C-1 is all low lying and is encompassed by the velocity (wave action) coastal hazard area. The shorefront consists of about 1,500' of beach and an area (about 6 acres) of tidal wetlands. The beachfront is divided into about 23 houselots; there are some groins across the beach, and front walls. Harvey's Beach, a commercial facility, is at the southerly end. Three parcels on the point at the Oyster River are owned by the Town; there are four road ends for public access to the beach or River. There are important scenic views across C-1, especially from Conn. Route #154 which borders C-1.

Beach erosion drift is from south to north. Off shore there are sand bars as well as intertidal flats and shellfish concentration areas (see also Area B). On the beach and inland (on artificial fill) is a dense development of dwellings, most of which are seasonal; a few have been converted to year-round use. Great Hammock Beach is an unstable barrier beach lying between the Sound and the wide expanse of tidal wetlands inland. The tidal marsh adjacent in Area B is owned by the State of Connecticut.

All of C-1 is in the Residence A District on the Zoning Map; a minimum lot size of 20,000 square feet is applicable with public water supply. Few, if any, lots are conforming.

Problems, Concerns and Opportunities

1. Coastal hazards, including wave action, are a potential threat to life and property in all of C-1. This area is not identified as having sewage problems to be addressed by a community system. Further conversion to year-round occupancy could lead to sewage problems and additional concerns for coastal hazard protection. There appears to be no feasible or acceptable structural solution if enjoyment of the beaches and views is to continue. Continuing applicability of flood plain management standards is a necessity.

2. Abandonment of the commercial beach and subdivision of the site into houselots have been proposed. The beach use is water dependent, provides public access to the water and is consistent with coastal policies. A subdivision for dwellings is not water dependent. A concern is how to continue a viable beach recreation use.

AREA C-2: PLUM BANK BEACH

C-2 is all low lying and is encompassed by the velocity (wave action) coastal hazard area. The shorefront beach extends from Plum Bank Creek about 2,900' to the coastal bluff or escarpment near Cornfield Point Association property. The beach is modified (mB) by many jetties or groins across the beach and front walls. Old Saybrook's principal Town Beach occupies about 220' of beach frontage; the remainder is divided into 45 to 50 lots occupied by seasonal and year-round dwellings.

Plum Bank Beach is a barrier beach consisting of a narrow strip between the Sound and the wide expanse of tidal wetlands inland. Conn. Route #154 bordering C-2 on the east is a scenic route and may be a stabilizing feature. Offshore there are intertidal flats and sand bars. Beach erosion drift is from south to north. There are many jetties or groins across the beach as well as front walls on house lots.

All of C-2 is in the Residence A District on the Zoning Map; a minimum lot size of 20,000 square feet is applicable with public water supply. Few, if any, lots are conforming.

Problems, Concerns and Opportunities

1. Coastal hazards, including wave action, are a potential threat to life and property in all of C-2. As with C-1, this area is not identified as having sewage problems to be addressed by a community system. Further conversion to year-round occupancy could lead to sewage problems and additional concerns for coastal hazard protection. There appears to be no feasible or acceptable structural solution if enjoyment of the beaches and views is to continue. Continuing applicability of flood plain management standards is a necessity.
2. Beach erosion and maintenance appears to be a continuing problem. Part appears to have sufficient sand while others are starved. A plan of restoration and maintenance may be needed.

AREA C-3: BACK RIVER/PLUM BANK CREEK

C-3 consists of a wide expanse of State regulated tidal wetlands, about 335 acres, and adjacent upland. Upstream are about 2 acres of Town regulated inland wetlands near Edmund Street. Most but not all of the tidal wetlands are owned by the State of Connecticut. There are scenic views across the marshes from Conn. Route #154 and other locations. These tidal wetlands are fed by tidal creeks — Back River, which connects to the Oyster River, and Plum Bank Creek, which divides Areas C-1 and C-2.

Coastal hazard areas (rising water) extend well inland over these creeks and marshes as far as part of Old Post Road and Main Street. Sections of Farview Avenue, Maple Avenue, Briarwood Drive and Summerfield Road areas rise above the flood plain.

A densely built-up area between Summerfield Road and Edwards Road is designated as an area where sewers are recommended. An area east and west of Maple Avenue (part in Area F) is designated as a sewage problem monitoring area. A possible site for a community septic field area has been identified south of Shepard Street.

Substantially all of the upland area adjacent to the tidal wetlands has been subdivided into one-family houselots. Two or three open tracts remain in the northern part of C-3. The upland areas consist of end moraine; there are a few small sections of artificial fill where there has been encroachment on the marshes.

On the Zoning Map the Residence AA-2 District is applicable to the Briarwood Drive and middle portion of Maple Avenue. The primary use in AA-2 is 1-family houses on a minimum lot of 20,000 square feet with public water supply. The Residence A District is applicable to the remainder (also 20,000 square foot lots); the sections of smaller lots are also the sewers-recommended or sewer-monitoring areas.

Problems, Concerns and Opportunities

1. Wetlands, while regulated, will require continuing watch to avoid filling or pollution. While areas adjacent are substantially developed, some new construction can occur, and wetlands setbacks and erosion and drainage runoff controls need to be adequate.
2. Having coastal hazard areas, continuing applicability of flood plain management standards is a necessity.
3. Sanitary sewers have been recommended in the Summerfield Road to Edwards Road area. Further conversion to year-round occupancy and other intensification of use may be encouraged if a community system is provided. Most of this "sewers recommended area", however, is not subject to coastal hazards.

AREA D: CORNFIELD Pt. to GUARDHOUSE Pt.

Area D throughout its length is classified as modified bluff and escarpment (mE). D commences at the barrier beach in C-2, ends at Fenwick (Area E) and includes the densely settled seasonal and year-round residential areas on the bluff. In front of the bluff is rocky shorefront at Cornfield Point and a) about 1,300' of beach north from the Point (many groins and jetties have been installed) and b) about 6,500' of beach, much of which is stony, from Pratt Road to Fenwick. Off-shore are intertidal flats (north from Cornfield Point) and Willard Bay along the Sound.

Commencing at Area C-2, a beachfront is owned by the Cornfield Point Association. Thence and around the Point to Pratt Road, there is a seawall plus about 20 houselots with dwellings and the Castle Inn (inn and restaurant) that is a shore landmark and place of public (commercial) access to views of the Sound. In the same area there are three road ends where there can be public access to the beach. The stony beach from Pratt Road to Maple Avenue is bordered by about 20 lots and dwellings; there are seven "road end" type parcels owned by the Town and giving access to the beach. The shorefront thence to Fenwick is bordered by a seawall, adjacent to which is a well known stretch of scenic highway, Conn. Route #154. There are seven or more sets of stairs down the wall and the entire beachfront is owned by two associations — the Knollwood Beach Association and the Fenwood Swim Club. There are two or three docks for fishing or tying up small boats. Small areas of sand beach are filled and maintained by the Associations. Public access to the beach is also available at a road end at Old Fenwick Road. Beach erosion drift is generally north from Cornfield Point and west and east from Guardhouse Point.

In general, the built-up residential areas that are within Area D as delineated are not in the coastal hazard area. Fingers of low land and hazard area, however, extend into Knollwood and Fenwood from South Cove (Area F).

The section of Knollwood generally south or west of Route #154 is designated as a monitoring area for potential sewage problems. Dwellings in Area D are located on end moraine or rock.

The entirety of D is located in the Residence A District on the Zoning Map; a minimum lot size of 20,000 square feet is applicable with public water supply. Few lots are conforming.

Problems, Concerns and Opportunities

1. The density of dwelling development suggests necessity for continuing concern for proper sewage disposal to avoid danger to the public health and pollution of groundwater and tidal wetlands. Concern becomes greater if seasonal units are converted for year-round occupancy.
2. Special assets of Area D are the many scenic views, including the public access at Cornfield Point. The Inn is a nonconforming use; its viability is subject to the market place and proposals for change in use are possible.

3. Beach erosion and maintenance north of Cornfield Point is a matter of continuing concern.

AREA E: FENWICK

Area E is within the Connecticut River Gateway boundary, is comprised of the Borough of Fenwick and is a peninsula bordered by the Sound, the Connecticut River and South Cove. The Saybrook Jetties at the navigation channel of the River plus the Breakwater Lighthouse and Saybrook Lighthouse (Lynde Pt.) are facilities of national interest.

The Sound and River shorefronts consist of beach, much of which is a barrier beach. There is modified beach at Lynde Point. There are also modified bluffs and escarpments on the Sound frontage. The South Cove side includes patches of State regulated tidal wetlands. On the peninsula are about 15 acres of tidal wetlands and 56 acres of Town regulated inland wetlands.

The coastal hazard area covers the majority of Area E. The velocity (wave action) hazard area covers all of the Sound and River shorefront. On the Sound side there are one or two private docks and a small protected harbor with breakwater. There are also docks on Cove side. Zoning is adopted and administered by the Borough of Fenwick. A possible community septic field area is located west of Maple Avenue.

Problems, Concerns and Opportunities

1. Coastal hazards, including wave action near the shorefront of the Sound and River, are potential threats to life and property. There are scattered dwellings and structures in the velocity hazard area; it is not likely that structural solutions to flood hazards would be justified for sparse development, or desired. The Fenwick beach is largely a barrier beach, and the Federal Emergency Management Agency has proposed to remove part of the beach area from eligibility for flood insurance assistance. Continuing applicability of flood plain management standards, however, is a necessity.
2. Wetlands, both tidal (State designated) and inland (Town regulated) appear to be in their natural state, with few modification by construction or other development. Considerable development could occur on open land, affecting wetlands, but local ownerships and Borough policy have not favored growth.
3. Beach erosion is a continuing concern for which a plan of maintenance may be needed.

By Chapter 444 of the Connecticut General Statutes, the Borough of Fenwick is a municipality having jurisdiction for elements of its own municipal coastal program. Plan of Development responsibility rests with the Town.7

AREA F: SOUTH COVE

Area F — South Cove and its watershed — presents a challenging combination of coastal resources for conservation, use and management. The Connecticut River is an estuarine embayment (EM) and South Cove is a branch. About 396 acres of water area are identified as having shellfish concentrations. The Cove is crossed by the "Causeway", Conn. Route #154 having two lanes, inland from which are 310 acres of embayment. Easterly of the Causeway are remains of a bridge from Saybrook Point to Fenwick.

The Causeway is low level and subject to wash in extreme flood conditions. There are three (3) openings for water passage between the inner and outer waters of South Cove. The Causeway is well known as a scenic route with vistas of the Connecticut River, the Cove, Fenwick and Saybrook Point. The Causeway and bridges are popular for fishing; no vehicle parking is allowed on the Causeway and few spaces are available off-highway at the ends.

The waters of South Cove are shallow but navigable by small boats that can clear the Causeway passages. Private docks and canals are found near dwellings around the Cove. The observation of the most recent study is that South Cove is filling in or dying as a result of siltation from the Connecticut River. The three openings under the Causeway are insufficient for adequate flushing. While the entire Cove is designated as a shellfish concentration area, there is doubt as to the significance and viability of these waters for shellfish.

Bordering the Cove are about 160 acres of State regulated tidal wetlands, which extend to and amid developed residential areas of Fenwood and Knollwood and along Maple Avenue and College Street. Parts of the marsh are owned by the State of Connecticut. Sewer problem monitoring areas are designated at Fenwood (with a possible community septic field site in Area E), at the north end of Maple Avenue (see also Area C-3) and at Saybrook Point (see Area G). The Coastal hazard area covers all of Area F with the exception of upland pockets at Fenwood, on Maple Avenue and at Saybrook Point. The Cove itself plus part of Saybrook Point is in the Connecticut River Gateway Conservation Zone.

There are several street ends which connect to the waters of South Cove. The Town owns Cove frontage at the end of Sound View and Clinton Avenues. Subdivision layouts of streets and lots at Knollwood and off Maple Avenue overlap the tidal wetlands.

The tidal wetlands and uplands along the central part of Maple Avenue are shown on the Zoning Map as Residence AA-2 District (20,000 square foot lot with public water supply). The remainder of Area F is Residence A District having the same standard but few of the lots at the north end of Maple Avenue and at Knollwood and Fenwood are conforming.

Problems, Concerns and Opportunities

1. The future of South Cove as a continuing estuarine embayment can be addressed after adequate technical study and consideration of appro-

priate policy and alternatives. Elements that can be considered include —

- a. the Causeway interrupts the natural pattern of water circulation, is a State facility and is the responsibility of Conn. DOT, but modification involves environmental, coastal and recreational considerations;
 - b. an improvement program could be limited to addressing siltation and adequate flushing only, with a view to maintaining the natural productivity of an embayment;
 - c. in addition solving siltation, part of Causeway could be raised to allow navigation, which will lead to possible channel and anchorage dredging and may be in conflict with preservation of shellfish beds;
 - d. changes in the Causeway can provide sidewalks and better access for fishing and parking; and
 - e. the Causeway could be removed, thereby eliminating a scenic highway and introducing a circulation problem within the Town.
2. The significance of the shellfish concentration designations merits further justification and evaluation.
 3. Wetlands, while regulated, will require continuing watch to avoid filling, excavation and pollution. Tidal wetlands are expanding as a result of silt build-up in the Cove.
 4. Having coastal hazard areas, continuing applicability of flood plain management standards is a necessity. There are areas near Maple Avenue and crossing College Street with good access and where the hazard potential may not be obvious.

AREA G: SAYBROOK POINT

Area G consists of the easterly end of Saybrook Point which has characteristics of a developed shorefront by reason of bulkheads, docks, filled land and commercial use. Except for high areas near College Street, all of Area G is in the coastal hazard area; the riverfront from Bridge Street out is a velocity (wave action) hazard area. The Point is also identified as a sewage problem monitoring area. There are about 7 acres of tidal wetlands plus a water inlet. All of Area G is in the Connecticut River Gateway Conservation Zone. Saybrook Point is a prominent and well known feature on the west side of the Connecticut River and is the first point of public landing and public activity north from Long Island Sound. It was the site of Fort Saybrook settled in 1635, and in ensuing time became a focus of commerce and shipping — from dock to steamboat and eventually served by a railroad (now abandoned). In more recent years, Saybrook Point continues to be an important site of public activity for boating, restaurants, shops, fishing, scenic view and commercial recreation. In 1981 the Town acquired the Fort Saybrook site for a passive park and monument site. Time and forces of the market strongly indicate that changes in usage of privately owned commercial properties can occur.

On the Zoning Map, the Saybrook Point shorefront is located in the Shopping Center Business B-2 District and Marine Commercial MC District. These districts allow uses consistent with coastal policies and many that are not. A proposal for multiple dwelling development, a non-water dependent use, has been turned down. On the shorefront are a) large areas of parking, which support a restaurant, seafood stand and miniature golf, b) Saybrook Point Yacht Club (marina) where there are also shops, offices and an obsolete motel, and Hull Harbor Cove (marina). There are significant potentials for land use change.

Problems, Concerns and Opportunities

1. There is a need for a special study and overall plan for Saybrook Point which would affirm a unified program to --
 - a. establish the function, layout and access for Fort Saybrook Monument Park;
 - b. encourage economically feasible water dependent uses, and assure the necessary land support; and
 - c. provide a design framework for vehicular access, traffic management, flood management, tidal marsh protection, sewage disposal, height and bulk criteria, navigation channel protection and public access to water and vistas.

AREA H: NORTH COVE

Area H consists of an estuarine embayment (EM) of about 150 acres that is a branch of the Connecticut River. There are about 96 acres of tidal wetlands on the west and south extending toward Main Street and the center of Town. Navigation access to the Cove is through a break in the abandoned railroad embankment. A 6.5' depth channel, about 2,400' in length, has been dredged from the Connecticut River to a 600' x 2,100' anchorage basin having a 6' depth.

At the mouth of the Cove is a small, shallow protected harbor. There are walls, boat tie-ups and dwellings along the south shore; the Town owns two parcels, one of which can be used as a launching site. On the west shore at the anchorage basin is the Town Dock and the North Cove Yacht Club; a marine rigging firm was nearby. Inland are new multiple dwelling sites, Town schools, cemetery and elderly housing. The north edge of the Cove is the abandoned railroad embankment. There are scenic views across the Cove.

Coastal hazard areas cover the tidal wetlands and fringes around North Cove, and extend toward Main Street along the tidal marshes and creeks. The Cove itself is in the Connecticut River Gateway Conservation Zone. A possible community septic field area is located near Main Street.

On the Zoning Map, the Saybrook Point and abandoned railroad sides are in the Residence AA-2 District; the southwest portion of Area H and the Sheffield Street

Area are Residence A District. Both Districts establish a 20,000 square foot lot with public water supply. The Condominium District, however, overlaps the A District. A Marine Commercial Limited MCL District covers an area on the Cove north of Sheffield Street, and adjacent is an Industrial I-1 District.

Problems, Concerns and Opportunities

1. North Cove has potential for additional recreation boating capacity by further dredging of the anchorage. Considerations, however, will include a) coastal policy for preservation of embayments, b) finding a suitable spoils area and c) provision of sufficient land support without intrusion on tidal wetlands.
2. Wetlands, while regulated, will require continuing watch to avoid filling, excavation and pollution. The tidal wetlands extend to what are becoming high value areas near Main Street and the center of Town.
3. Having coastal hazard areas, continuing applicability of flood plain management standards is a necessity.
4. The extent and suitability of the MCL District merits re-examination. It appears that use of substantial parts of this District involves modification of tidal wetlands.

AREA I: RAGGED ROCK CREEK

Area I features Ragged Rock Creek, a tidal creek inlet from the Connecticut River, which meanders through a broad expanse of State regulated tidal wetlands (348 acres) that extend along the entire river front from the abandoned railroad embankment to current operating railroad. There is a small island offshore. Upstream are about 24 acres of Town regulated inland wetlands which extend to commercial and industrial areas near the railroad. More than half of the tidal wetlands are owned by the State of Connecticut (206 acres, including all of the river front); the Town owns four acres of marsh.

The southwest boundary of Area I is the abandoned railroad embankment, part of which is used informally for fishing. An intertidal flat lies northeast of the embankment, its water source being North Cove. Northwest of the flat is the Town's now discontinued sanitary landfill — a substantial mound rising above the marsh. A shellfish concentration area of about 36 acres is identified in the Connecticut River just south of the railroad bridge. Ragged Rock Creek extends under the railroad into Area J-2.

The railroad (as in Areas A-3, B, J-1 and J-2) is part of the Northeast Corridor improvement project, involving electrification and high speed trains. Improvements are expected to occur within existing right-of-way; catenaries would be an addition to the horizon in some locations.

The tidal wetlands and upland fringes are in the coastal hazard area. The uplands near the railroad lack suitable access; only River Street and an unimproved extension of Mulcahy Road are available. The Town's septic lagoons are located on leased land just north of the railroad and outside the Coastal Boundary.

On the Zoning Map, upland and inland wetlands areas are in the Industrial I-1 District and Residence A District. The expanse of tidal marsh is in Residence AA-2 District (20,000 square foot lot with public water supply; 40,000 square feet without). The Marine Commercial Limited MCL District covers the sanitary landfill and adjacent marshes.

Problems, Concerns and Opportunities

1. Wetlands, while regulated, will require continuing watch to avoid filling, excavation and pollution, especially at edges near the Industrial I-1 District. It will also be appropriate to re-examine the adequacy of industrial development uses and site construction standards with regard to potential effects on the wetlands.
2. Future use of the sanitary landfill site is to be considered, such as for recreation. Monitoring of potential leachate flow to the marsh and water courses will be important.
3. Additional recreation use of the abandoned railroad embankment can be considered, such as for fishing and boat launching. Access from River Street is currently poor. The adjacent waters of North Cove are shallow. The embankment may also be useful for nature tours and instruction.
4. The appropriateness of the MCL District covering the landfill and adjacent tidal wetlands can be reconsidered. Use for marina purposes would appear to involve dredging of the marsh or intertidal flat (contrary to coastal policy) and dredging of a channel in North Cove.
5. Having minor coastal hazard areas, continuing applicability of flood plain management standards is a necessity.

AREA J-1: RIVER FRONT

Area J-1 concerns the Ferry Road frontage and Connecticut River front (2,600' in length) from the railroad bridge to the Baldwin Bridge (I-95, Connecticut Turnpike). Similar to Area G, this River Front area has characteristics of a developed shorefront. J-1 is in the Connecticut River Gateway Conservation Zone.

Along J-1 are the canal to Area J-2, marine service businesses (including Saybrook Marine Service and Riverview Marina), Town Dock, other docks, and River Landing Marina (marina, restaurant and shops). Commercial fishing boats operate from this Area. The River Landing Marina site has a sewage treatment plant. Also on the riverfront are two segments of State regulated tidal wetlands having a total of about six acres; it is probable that front development in the past has removed tidal marsh. The other side of Ferry Road and Ferry Place includes dwellings and a convalescent hospital; some lands are in the same ownership as the riverfront.

The coastal hazard area covers the lowlands lying east of and below Ferry Road. Maintenance dredging between the riverfront and the channel is necessary

for navigation; river ice is a typical problem. The railroad bridge, while movable, has at times been inoperative and an obstruction for larger boats.

On the Zoning Map, the land between Ferry Road and the water is in the Marine Commercial MC District, allowing a range of commercial and recreation boating and fishery uses. The west side of Ferry Road is in the Residence A District. Some of the Residence A has been used for parking support for the River Landing Marina operations.

Problems, Concern and Opportunities

1. The J-1 riverfront offers an opportunity for additional water dependent uses — primarily recreation boating, commercial fishery and boat maintenance, sales and construction. Related concerns are —
 - a. the depth from riverfront to Ferry Road is shallow, allowing minimum space for shore support activities;
 - b. the River Landing Marina development has in the past been claimed to be economically obsolete; a project of multiple dwellings for the site has been turned down by the Town;
 - c. full development of the riverfront involves a decision between conflicting policies — preservation of tidal wetlands versus full economic development of the shorefront; and
 - d. adequate provision for sewage disposal (land occupancies and from boats) will be a continuing concern.
2. Having coastal hazard areas, continuing applicability of flood plain management standards will be a necessity.

AREA J-2: RIVERFRONT - INTERIOR

Area J-2 consists of the interior area back of J-1 where there are a) about 27 acres of State regulated tidal wetlands, b) about 14 acres of Town regulated inland wetlands, and a dredging spoils area and c) a canal along the railroad from the Connecticut River to Ragged Rock Marina (created from excavation of dry land). Area J-2 also contains a mix of other features such as many dwellings, the Conn DOT highway garage, a freshwater pond and upland commercial and industrial properties along U. S. Route #1. The coastal hazard area follows the tidal and inland wetlands and fringes.

On the Zoning Map, the low areas south of Ferry Road are in the Marine Commercial MC District, allowing a range of commercial and recreation boating and fishery uses. Other low and high lands westerly are in the Industrial I-1 District with orientation to Route #1. Residential Areas on Ferry Road and Ferry Place are in Residence A District.

Problems, Concerns and Opportunities

1. Having coastal hazard areas, continuing applicability of flood plain management standards will be a necessity.
2. Area J-2 offers a potentially difficult mix of uses and resources -- marinas, wetlands, dwellings and industrial/commercial uses. The Industrial I-1 District areas drain to the wetlands; during construction these areas can be a source of erosion and sedimentation and during use could be a source of pollution from domestic and industrial wastes. A proposal for a project of multiple dwellings in J-2 has been turned down by the Town. It will be appropriate to re-examine the adequacy of zoning districts and standards with a view to encouraging water dependent uses and providing sufficient protection for coastal resources.
3. Wetlands, while regulated, will require continuing watch to avoid filling, excavation and pollution.

AREA J-3: FERRY POINT

Area J-3 concerns the front and inlets along the Connecticut River, starting with the Baldwin Bridge (I-95, Connecticut Turnpike) and extending around Ferry Point to Hydes Point Creek (Area K-1).

At the Baldwin Bridge is the State launching ramp, with parking available under the bridge. Continuing north there are marinas (Oakleaf Marina), boat storage and a boat builder. Around the Point is a marked channel leading to the large Ferry Point Marina with docking walls and boat slips, a docking wall with boat slips at dwellings, boat storage, other docks and catwalks to tie-ups. There is a sunken barge obstruction in the navigable area. Parts of J-3 have the character of developed shorefront.

The coastal hazard area covers the low lying marina areas and fringe along the River. About 1 acre of inland wetlands is located between Essex Road and I-95. It is probable that tidal wetlands have been removed for marina construction.

Also within J-3 are compact residential developments on uplands -- Riverside Avenue and Floral Park, commercial development near I-95 (motel, restaurant, VFW) and the State of Connecticut Seaside Training School.

On the Zoning Map, the Marine Commercial MC District covers the riverfront (about 800') north from Baldwin Bridge and the marine developments on the marked channel (see also Area K-1). Existing residential areas are in Residence A District (20,000 square foot lot with public water supply). Shopping Center Business B-2 District covers the commercial area adjacent to I-95.

Problems, Concerns and Opportunities

1. A Baldwin Bridge improvement (strengthening and additional lanes, or second bridge) is scheduled. This is a facility of national signif-

icance and by reason of construction and new ramps may materially affect the riverfront, including part of Area J-1.

2. Existing MC District uses are generally water dependent and are to be encouraged. Space available for expansion, however, is very limited. There will be continuing concern for sewage disposal — landside uses and from boats. Maintenance of channels and removal of obstructions are a concern.
3. Having coastal hazard areas, continuing applicability of flood plain management standards will be a necessity.

AREA K-1: HYDES POINT CREEK

K-1 borders the Connecticut River and contains about 105 acres of State regulated tidal wetlands through which a tidal creek meanders. Most of the riverfront part of the marsh is owned by the State of Connecticut. There are about 6 acres of Town regulated inland wetlands upstream. Coastal hazard areas cover the wetlands and fringe uplands.

K-1 includes developed residential areas on small lots at Floral Park, part of the Route #9 expressway corridor and Springbrook Road and lower density residential areas off Ayres Point Road. All of K-1 is in the Connecticut River Gateway Conservation Zone. There is incidental recreation boating use of the tidal creek; there are catwalks over the marsh, and some canals have been dug to private docks.

On the Zoning Map the Marine Commercial MC District covers tidal wetlands at the mouth of the creek, north of Fourth Street. Residence A District (20,000 square foot lot with public water supply) covers Floral Park and Residence AA-1 District (40,000 square foot lots) covers the remainder.

Problems, Concerns and Opportunities

1. Wetlands, while regulated, will require continuing watch to avoid filling, excavation or pollution. Significant new construction around the edge of the wetlands, however, is not anticipated.
2. Recreation boating use of the tidal creek may be possible to a very limited extent. Boat access by means of canals or slips constructed in wetlands would be inconsistent with coastal policy. The existing MC District may be inconsistent with policy and merits re-examination.
3. Having minor coastal hazard areas, continuing applicability of flood plain management standards is a necessity.

AREA K-2: OTTER COVE

K-2 is entirely in the Connecticut River Gateway Conservation Zone, extends from Ayres Point to Watrous Point, and contains about 10 acres of Town regulated inland wetlands. Along the Connecticut River front are a small private harbor protected by jetties, private boat docks and patches of natural beach. The coastal hazard area touches the Riverfront edge and extends inland up the inland wetlands system. On the Zoning Map, K-2 is located entirely in the Residence AA-1 District (40,000 square foot lot). Most of the K-2 is scenic high land, well above flood level, and is characterized by estate-type residential development.

Problems, Concerns and Opportunities

1. Having coastal hazard areas continuing applicability of flood plain management standards is a necessity.
2. Wetlands, while regulated will require watch to avoid filling, excavation or pollution. Significant new construction in the area, however, is not anticipated.
3. There can be additional recreation boating use of the Riverfront, including restoration of the protected harbor. Boating activities can be expected to be for private neighborhood use.

AREA K-3: DEITCH POND

K-3 is entirely in the Connecticut River Gateway Conservation Zone and is distinguished by about 17 acres of State regulated tidal wetlands (extending into the Town of Essex) and 3 acres of Town regulated inland wetlands and series of ponds. The coastal hazard area covers the fringe along the Connecticut River and extends over the marsh. Substantially all of the tidal wetlands appear to be owned by The Nature Conservancy. The Otter Cove Association owns the stream and pond related area inland. There is a jetty and private dock on the riverfront. All of K-3 is located in the Residence AA-1 District (40,000 square foot lots) on the Zoning Map. Areas that have not been reserved for conservation are characterized by estate type development.

Problems, Concerns and Opportunities

1. Current conditions, ownerships and zoning are generally consistent with coastal policies.

S U M M A R Y O F C O A S T A L I S S U E S

- A. People to the Shore: There is a continuing growth in demand for recreation and living near the waters of Long Island Sound. Conversions to year-round occupancy are an example. The value of lots and buildings is increasing. There is need for general examination and best development of the shorefront amenities such as scenic views, boating, fishing and swimming.
- B. Town Beach: On the face of it, the Town Beach is very small for the size of the community. There are residents, summer and year-round, who have the use of the many private association beaches. There are also 20 to 30 road ends where there can be public access to the beach. A plan and decision is needed with regard to —
1. the size and scope of Town Beach (frontage, land area, parking) needed for the long range future;
 2. additional use of road ends and how parking problems might be solved; and/or
 3. provision of freshwater swimming and beach, or pool, as an alternative.
- C. Recreation Boating: Boating is a major activity in Old Saybrook, with participation by year-round and summer residents and by visitors from other parts of the State. Activities range from the small boat at tie-ups on a tidal creek to large boats at marinas. It should be assumed that recreation boating interest will increase and additional facilities (tie-ups, moorings, slips, sales, repair, service) will occur. At issue is the creation of facilities in a manner consistent with wise use and conservation of coastal resources. There is need for a policy and program which —
1. reserves the limited shorefront with adequate channel for slips, service, sales and repairs, and with sufficient land area for support parking and facilities;

2. emphasizes additional moorings in natural harbors or in embayments where channels have already been provided (cf. North Cove);
3. provides for launching sites with sufficient land space for support;
4. avoids new channel development in shellfish concentration areas, and tidal creeks and wetlands, and creates slip mooring facilities from dry land; and
5. assures proper disposal of wastes from boats.

D. Shellfish: Within Old Saybrook and vicinity are about 632 acres of shellfish concentration areas. Some, as in the Oyster River (Area B), are harvested for transplanting to other locations. The significance of shellfish concentration areas and potential for use generally merit further study and evaluation.

E. Developed Shorefront: Saybrook Point (G), River Front and Interior (J-1 and J-2) and Ferry Point (J-3) are the only areas having characteristics of existing or potential developed shorefront for marina, fishery, and other water dependent uses. All have direct access to the Connecticut River and contain improvements (docks, bulkheads, etc.) typical of intensive use of harbor areas. Concerns with regard to these areas are —

1. Existing zoning should be re-evaluated a) to be certain that water dependent uses are encouraged and other uses which by the market could displace water dependent uses are excluded and b) standards of setback, bulk and coverage are appropriate.
2. Saybrook Point (G) is a location of special interest where elements of history and archeological interest, a passive park, public access to water and scenic views and potential water dependent uses come together in a location of local and Statewide importance. There are potential changes in use, and there is concern for economically viable water dependent uses. Here a use and development plan are needed to guide public and private action for the future.

3. At River Front (J-1), land for shorefront use is shallow and in part steep. Regulated wetlands exist amid developed shorefront. There are issues as to a) wetlands protection versus economic development of the shorefront and b) support land needed for shorefront use.
4. The Baldwin Bridge project will likely impinge on usable area in River Front (J-1) and Ferry Point (J-3). The manner in which bridge improvement can be made consistent with coastal resources and policies is yet to be determined.

F. Wetlands: Within the Coastal Boundary there are about 1,335 acres of tidal wetlands (22.0% of Coastal Boundary Area) regulated by the State and about 178 acres of inland wetlands (2.9% of Coastal Boundary Area) regulated by the Town. "Regulated" means that any filling, excavation, construction or discharge is subject to obtaining a permit. A decision to authorize or deny a permit gives priority to wetlands conservation and the public interest. While there are no observed wetlands despoliation activities in process, there are concerns with the following:

1. the adequacy of erosion, sedimentation and fill control measures near the edge of wetlands in the design and conduct of construction projects;
2. the sufficiency of building and other construction setbacks from wetlands;
3. pollution which may reach wetlands, water courses and tidal creeks from septic systems and from commercial and industrial areas (parking lots, storage, processing operations);
4. special concerns where wetlands are intertwined with commercial/ industrial areas near U. S. Route #1 and the railroad;
5. subdivided lands (lots and streets) which overlap mapped wetlands;
6. the future of pockets of wetlands amid developed properties as at Saybrook Point (G) and River Front (J-1); and
7. Marine Commercial zones which overlap wetlands and may be usable only by wetlands excavation.

The sufficiency of wetlands protection is to be re-evaluated with regard to above.

G. Sewer Avoidance Program: The option to avoid a major central sewage collection and treatment system for Old Saybrook, generates a program to assure a) proper construction, use and maintenance of on-site systems and b) solving problems in areas of current difficulty. The object is protection of the public health and the quality of ground and surface waters, including tidal and inland wetlands.

Within the Coastal Boundary are areas where sewers are recommended to solve problems in existing built-up sections. Tentative community septic field sites have been identified. These sections are also experiencing conversion to year-round occupancy, only to compound the sewage disposal problem. With regard to the Coastal Boundary Area, the following are concerns:

1. that a program to install community systems be carried out in a timely manner and when disposal sites are still available;
2. that the program not induce significant intensification (building enlargements, use of vacant lots, higher structures, encroachment on wetlands where subdivided); and
3. that the program not induce year-round conversion and new building in coastal velocity hazard areas.

Some of these concerns can be addressed in planning and zoning standards.

H. Coastal Hazard Areas: In general, the coastal hazard area covers all but the outer 1,000' fringe of the 6,068 acres within the Coastal Boundary.

Hazard is relative — consisting of rising water potential in most areas and serious velocity (wave action) hazard primarily at Chalker Beach (A-1), Indiantown/Saybrook Manor (A-4), Great Hammock and Plum Bank Beaches (C-1

and C-2), Fenwick (E) and Saybrook Point (G). Coastal hazards are a threat to the health, life and property. In general, structural protection solutions (seawalls, etc.) appear neither feasible nor acceptable. Concerns with coastal hazards are —

1. that flood plain management measures continue to be in effect and administered in appropriate detail;
2. that the disaster management program continue to be in effect, and in a state of adequate readiness; and
3. that if there is structure casualty in velocity hazard areas, rebuilding occur in a manner that conserves beaches and the amenities of views.

I. Beach Erosion: Erosion of beaches is a continuing concern. Natural sources and drift of sand should be maintained. Barrier beaches where the location and crest of the beach changes with time are of particular concern. It appears that insufficient information is available to guide beach erosion control and maintenance programs at this time.

J. South Cove: This unusual feature (a silted estuarine embayment, shellfish concentration area and the Causeway) invites additional study and consideration in the light of coastal policies. At a minimum, adequate water passage and flushing could be addressed and the scenic Causeway revised to provide safer access, fishing and parking. At issue would also be the maintenance of the natural function of an estuarine embayment versus further de-

velopment as a recreation pond. No man-made forces to change the circumstances of South Cove appear imminent. Further study, however, could discover how South Cove resources could be enhanced in accordance with coastal policies.

GENERAL TOWN DEVELOPMENT ISSUES

Concurrently with preparation of this document, the Old Saybrook Planning Commission has been conducting a program to reconsider and revise the Plan of Development for the Town as a whole. The Coastal Program Committee also identified a series of future development concerns in Old Saybrook generally.

This Municipal Coastal Program, therefore, has been prepared with the benefit of Townwide research and evaluation. The Coastal Program is not done in a vacuum or as a mere patch on the Plan of Development.

Summarized below are selected Townwide development features which are a backdrop for the Municipal Coastal Program. This summary is not intended to limit further research and different conclusions for a revised Plan of Development.

1. Population: Between 1970 and 1980 the U. S. Census reports a change in Old Saybrook resident population from 8,468 to 9,287, a modest increase of 9.7%. This increase is larger than the State (2.5%) but far less than neighboring Westbrook (36.5%) and Old Lyme (24.1%). Old Saybrook is at a transportation crossroads and central point of the Connecticut River Estuary Region but is not a major regional population center.

Various State and Estuary Region projections show a very small population increase (a few hundred) over the next 20 years. For long range planning purposes the Old Saybrook Planning Commission foresees a growth to between 11,000 and 12,500 persons by the year 2000.

2. Housing: During that 1970 to 1980 decade, the U. S. Census reports for Old Saybrook a change in number of housing units from 3,174 to 4,520, an increase of 1,346 or 42.4%. Of the 4,520 units, 1,048 are tabulated as seasonal. The number of persons per occupied household in 1980 was 2.75, down from 3.1 in 1970. Additional households result from conversion of seasonal units and new dwelling construction, including some multiple dwellings (condominiums). The local 20-year projection of population growth means 622 to 986 new households at 2.75 persons.

Based on existing residential zoning districts, 2,570 to 2,725 new 1-family dwellings could be constructed — on vacant lots and on land that could be further subdivided; about 82% of that number would be located north of the Connecticut Turnpike and most of those outside the Coastal Boundary. There are a few potential sites for multiple dwellings (condominium development) within the Coastal Boundary that are not included in this capacity estimate. Most of the future residential growth capacity occurs away from the shore. There is also concern for affordable housing and a sufficient range of alternative housing types.

3. Economic Development: Substantial areas for business and industrial development in Old Saybrook are located along the Route #1/Railroad/I-95 corridor, Main Street and Conn. Route #154. After subtracting for wetlands, ledge and existing dwellings and uses, these areas have a potential for 1-story building development in the range of 12,000,000 square feet. Old Saybrook is and is projected to continue as the principal economic development center of the Estuary Region.

4. Transportation: There is concern for additional traffic safety and volume build-up on local highways. U. S. Route #1 is likely to require four lanes throughout in the future. Sufficient provision for pedestrian and bicycle travel is yet to be addressed. No significant change in the pattern of traffic circulation routes in the shore area (Route #154, Maple Avenue, the Causeway, College Street and Main Street) is anticipated. Change may occur in the Route #1/I-95 corridor and north of I-95. The Baldwin Bridge project will significantly affect features of circulation in the corridor. Alternative public transit opportunities may become a significant part of the transportation system.

C O A S T A L G O A L S

PEOPLE TO THE SHORE

TOWN BEACH

RECREATION BOATING

SHELLFISH

DEVELOPED SHOREFRONT (Limited)

WETLANDS

SEWER AVOIDANCE/WATER QUALITY

COASTAL HAZARD AREAS

BEACH EROSION

SOUTH COVE

PEOPLE TO THE SHORE

People are attracted to the shore in all seasons. It is in the warmer months that the shore is especially useful and enjoyable. The waters edge in Old Saybrook is about 16.3 miles long — by Long Island Sound, and the Connecticut River and its coves — and today enables people to be in contact with the shore in many ways.

Where the Sound and River meet the land there is a special climate of generally cooler air in summer, moderating air in winter and a shoreline wind pattern. The air and ground features smell different from inland locations. The waters off Old Saybrook are a broad, flat expanse, ever-changing in color and texture, and attract people for the view —

- a. from public places, such as South Cove Causeway and other roads;
- b. from semi-public places, such as commercial enterprises at Cornfield Point and Saybrook Point; and
- c. from private places, such as dwellings and community association facilities.

Enjoyment of view may be for beauty or serenity, and, for some, the excitement of viewing the overpowering energy of severe storms.

Aside from passive experience, the edge of water and the off-shore waters are used by people for —

- a. swimming or bathing, generally at beaches;
- b. recreational fishing, for finfish and shellfish, from the land or in boats; and
- c. recreational boating, in craft of many types and sizes, including group excursion boats.

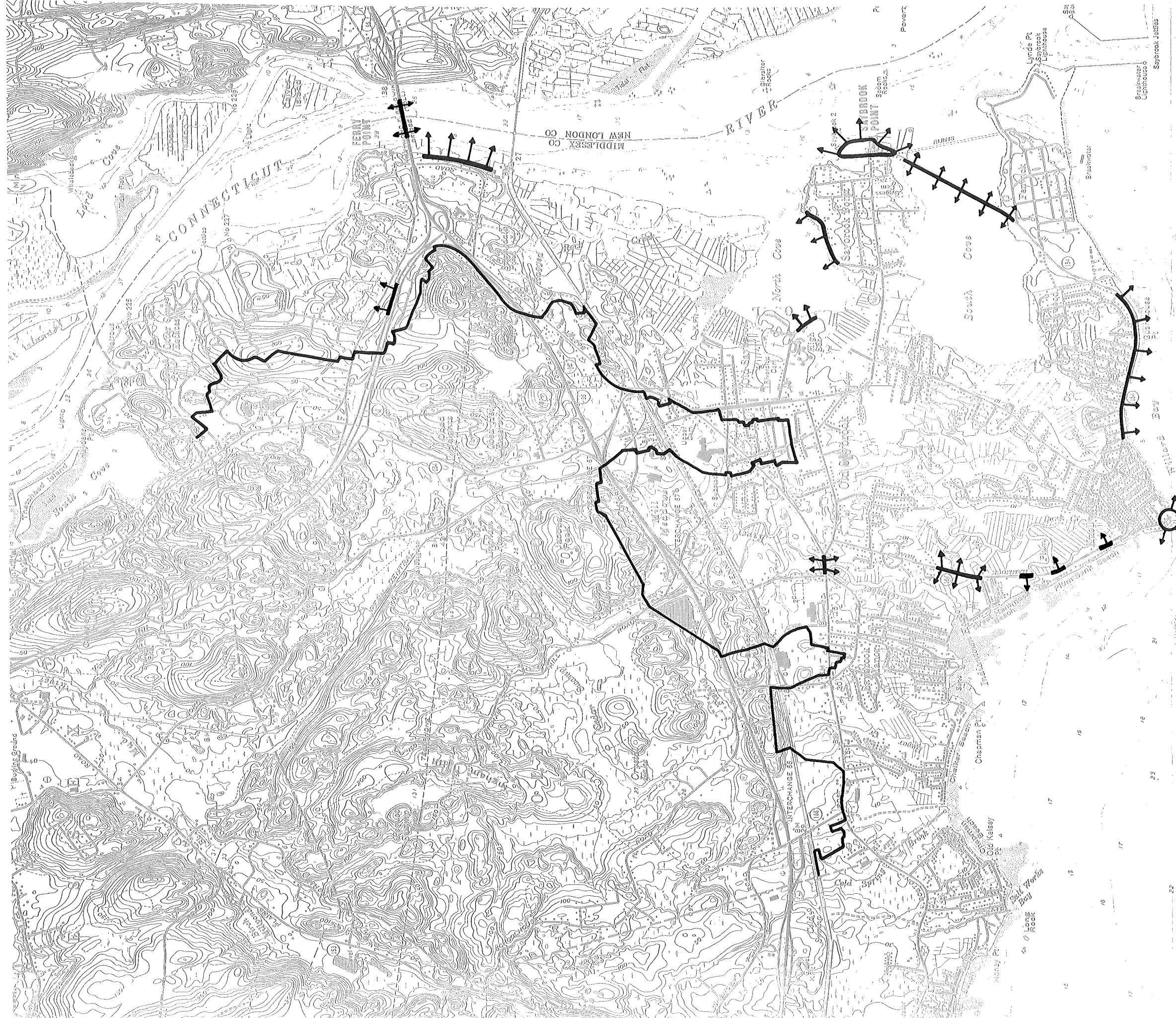
While only a few people may daily view or use the edge of water, shoreline influence is extended inboard by the many tidal creeks and marshes. The Coastal Boundary covers 51.8% of the area of the Town, and that boundary includes the homes of more than two-thirds of its residents. Unlike many other municipalities bordering the Sound and Connecticut River, contact with the shore is an overriding feature of living in Old Saybrook.

GOAL: to continue and increase opportunity for people to use and enjoy the amenities and resources of the shorefront in a variety of ways and in a manner that conserves and replenishes coastal resources.

Existing Opportunities: Places where people use and enjoy the shoreline are many and can be generally categorized as follows:

1. Views: These are frequent, and include public scenic views over a) the tidal marshes and creeks as from Route #1 and Great Hammock/Plum Bank Roads (Route #154), b) the Sound, Lynde Point and Saybrook Lighthouse from Maple Avenue (Route #154), c) South Cove and the Connecticut River from the Causeway (Route #154), d) North Cove from North Cove Road and Sheffield Street, e) the Connecticut River from the I-95 Baldwin Bridge and f) the Hydes Point Creek marshes and Ayres Point from the Route #9 expressway. Other views important to people are from community association properties at the beach and from private property and dwellings.
2. Beach: The 5.29 miles of beach is used at individual houselots and community association properties. Public access occurs at the Town Beach, 20 or so public road ends and at a commercial beach. All of the beach below mean high water is public. (See Coastal Goals: Town Beach for details of access.)
3. Boating: The waters of Long Island Sound and the Connecticut River, and the tidal waters of South Cove, North Cove and many tidal inlets such as Mud Creek, Oyster River, Back River and Ragged Rock Creek, are public waterways with varying navigation capability with regard to size of boats. Access by launching, docking and tie-up or anchorage varies from a private tie-line on a creek or an anchorage in open water to community association facilities, public anchorage basins and ramps and commercial docks and marinas. (See Coastal Goals: Recreation Boating for details of access.)
4. Fishing: The intertidal flats of the Sound and Connecticut River, and shellfish and finfish areas in navigable waters are public. The taking of shellfish is regulated by public health and conservation management authorities. (See Coastal Goals: Shellfish.)
5. Prominent Locations: Well known locations where people go to the shore in numbers and for a variety of purposes include —
 - a. Cornfield Point where commercial lodging and restaurant facilities are available;
 - b. the Maple Avenue (Route #154) shoreline drive;
 - c. the Causeway (Route #154);
 - d. Saybrook Point (commercial restaurants, shops and marinas); and
 - e. the Riverfront from the Railroad to I-95 (marinas, restaurants and services).

These prominent locations and some scenic view areas generally available to the public are depicted on Map #2.



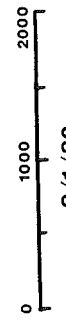
MAP# 2

Public Scenic Views

TOWN OF OLD SAYBROOK, CONNECTICUT

Robert S. Bryan & Associates

Old Saybrook Planning Commission



9/1/82
NOV. 13 1982

As now structured, the ways by which people use and enjoy the shoreline have a finite capacity by reason of factors such as road traffic capacity, land ownerships, site size and parking capability. As regional and State population grows, the number of people desiring the benefits of the shore will increase; property values will continue to rise. There is no major facility (cf. State park) for intensive use by large numbers of people attracted from the region or Statewide. Shorefront enjoyment and use will effectively depend upon individual concern for coastal resources and the rights of others.

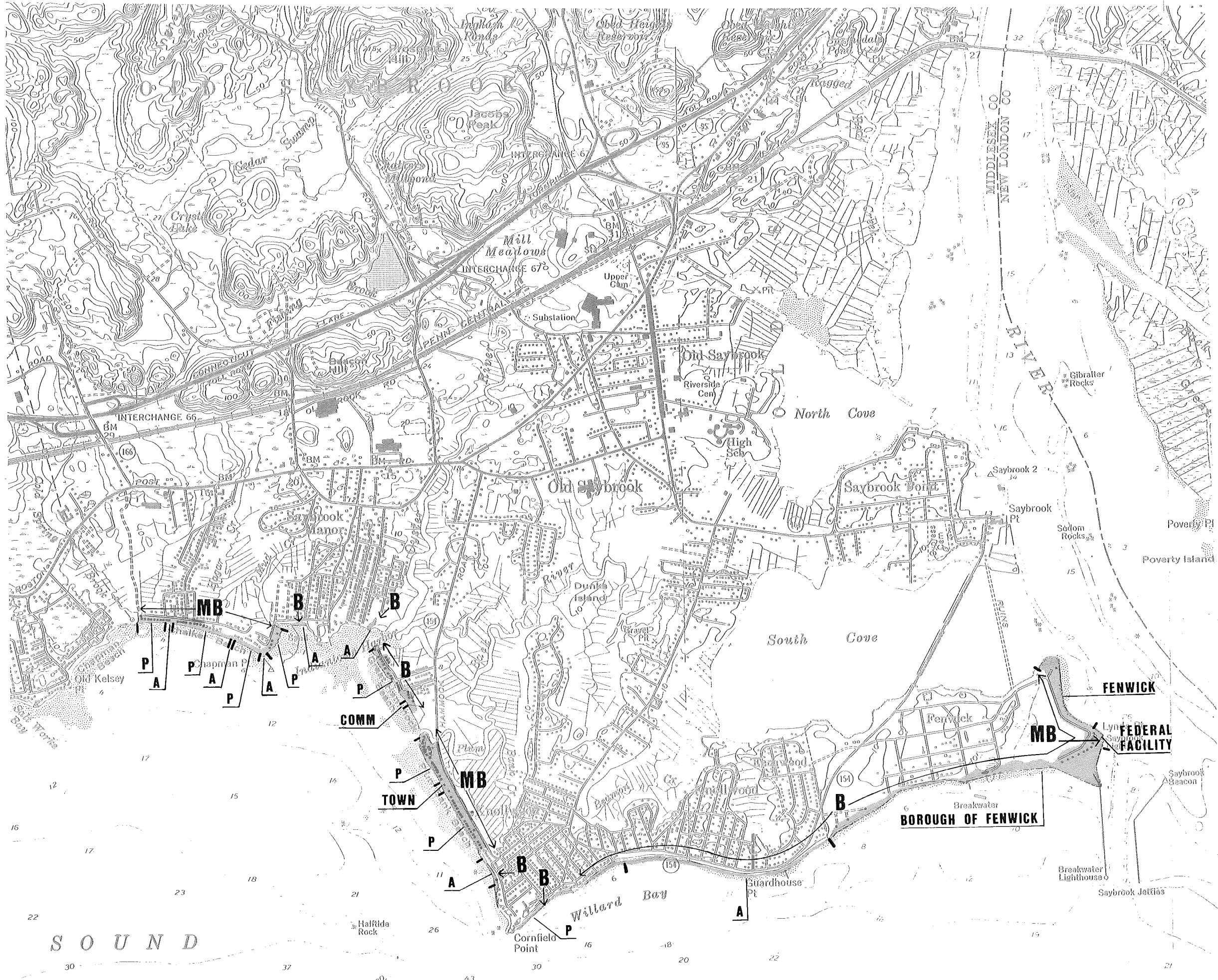
Policy: as guides for implementation of the goal for use and enjoyment of the shore, the following policies apply:

- A. to preserve the availability of existing public access locations (public and commercial).
- B. to encourage water dependent uses that enable people to use and enjoy the shoreline (in contrast to shipping, manufacturing or similar uses that may also be water dependent).
- C. to recognize and manage the limited potential of shoreline public access locations, but also to enhance usability where ownership and site conditions will allow.
- D. in the processing of Coastal Site Plans, to consider and review all alternatives whereby a) views to the shoreline from neighborhoods and individual dwellings will be preserved and b) at commercial activities, public contact with the shoreline will be enhanced.
- E. to support Coastal Management policies applicable to Federal and State agencies whereby a) new or improved shoreline rail corridors are to be designed and constructed so as to prevent tidal and circulation restrictions, improve coastal access and recreation and enhance or not unreasonably impair the visual quality of the shoreline and b) coastal highways, their improvements and bridges are to be designed to minimize adverse impacts on coastal resources and where possible enhance, but in no case decrease, coastal access and recreation opportunities.

Proposals:

1. Saybrook Point: to provide for the wise use and development of the Saybrook Point riverfront for use and enjoyment by the public in connection with a) its historic features, b) water dependent uses and c) other uses, including appropriate commercial activities. This riverfront, while largely privately owned, has a history dating from first settlement in the Town and progressing through periods when steamboats and then the railroad were the major means of transportation. In recent generations the Point is well known and used as a place where people may have contact with the shore. /A Special Study of Saybrook Point is being undertaken simultaneously with preparation of this Municipal Coastal Program.7

2. improve the usability and safety of the Causeway for pedestrians, bicycles, fishing and vehicles. (See Coastal Goals: South Cove)
3. augment opportunity for use and enjoyment of the shoreline and coastal and estuarine waters for beach activities, boating and fishing (See other Coastal Goals)



COMM Commercial Beach
TOWN Town Beach
B Beaches and Dunes
MB Modified Beach

P Private Lots
A Community Association

Source : CAM ; Town Records

Beaches

TOWN OF OLD SAYBROOK, CONNECTICUT

MAP # 3



Old Saybrook Planning Commission

9/1/82

Robert S. Bryan & Associates



SOUND

BOROUGH OF FENWICK

FENWICK

FEDERAL FACILITY

COMM

TOWN

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C O A S T A L G O A L S

TOWN BEACH

Bathing at the beach can be an experience that delights persons of all ages. Long Island Sound offers comparatively safe conditions — moderate tides and waves, and generally beaches with gentle slopes. Time at the beach is a form of recreation quite different from swimming pool exercise.

There are coastal municipalities with few beach resources; their waters edge consists of rocky shorefront, tidal marsh and developed shorefront. "Beach" as a coastal resource in Old Saybrook has a length of about 27,560 feet (5.29 miles). The beach below mean high water is public. The adjacent land ownership is as follows:

<u>Occupancy</u>	<u>Length</u>	<u>%</u>
House & building lots	15,430'	56.0
Community associations (8)	6,090	22.1
Commercial Beach	150	.5
Town property	220	.8
Public Road Ends	660	2.4
Fenwick (Borough; lots)	4,610	16.7
Federal Facility (lighthouse)	400	1.5
Total	<u>27,560'</u>	<u>100.0%</u>

* Map #3 shows the existing beaches and adjacent occupancy.

As of the 1980 U. S. Census, Old Saybrook had a population of 9,287 persons. In summertime, the number of persons in residence is considered to swell to 20,000 or more. A large portion of the seasonal population probably has access to beach at the eight (8) community association properties or at the home of friends with a cottage on the beachfront. On the face of it, other residents of the Town would use a commercial beach (150' and not necessarily a permanent facility), the Town Beach off Great Hammock Road (220') or one of the road ends or scattered parcels, where generally there are few places to park a car.

Year round resident population is expected to have only a moderate growth to 11,000 to 12,500 by the year 2000. The location of most of that growth will be inland, having no "association" access to the beach.

Goal: to provide a suitable and sufficient beach and land support area for present and future Town of Old Saybrook residents.

Existing Facility: The existing Town Beach on Plum Bank Road consists of about 220 feet of beachfront and an area of about 48,500 square feet (1.1 acres). The site contains a pavilion, rest rooms, refreshment stand, bike storage area and

* Map #3 shows general ownership of principal beach areas; see 1" = 400' inventory map for details of parcel-by-parcel ownership.

tightly arranged parking for about 50 cars. Parking is restricted to residents having parking stickers (\$12.00 for the season). The street is also used for parking on peak days. In recent years the site has increased in depth from Plum Bank Road as a result of sand accretion, aided by groins. The site is part of the Plum Bank barrier beach and has excellent location, access and orientation.

The practical capacity of the Town Beach is estimated to be about 300 persons. A recent local questionnaire survey found that the public considers the beach to be crowded and that there is need for additional Town beach. Beach studies done by the Town in 1971 and 1976 employed an estimating factor whereby 4% to 5% of the population would be expected to use a public beach on a given day. For current resident population (excluding summer seasonal), users would be in the range of 370 to 465; the higher projection of 12,500 persons in the year 2000 has a user potential of 500 to 625. From local experience, the current Town Beach is insufficient and has about half the capacity computable for 20 years ahead.

Policy: as a guide for implementation of the Town Beach goal, the following policy applies:

- A. to give highest priority and preference to water-dependent uses and facilities in shorefront areas.
- B. 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.

Proposal: acquire by negotiated purchase additional Town Beach area by enlargement of the existing beach or by obtaining an additional site or sites. The Town Beach proposal can be viewed as a program carried out over a period of time but should be based on consideration of the ultimate carrying capacity of inland residential areas of the Town.

The amount of beachfront and support land acquired will depend upon a number of factors, including a) need, b) the size and shape of property available and c) establishment of a beach unit capable of safety administration and having necessary support facilities (parking and rest rooms). The 1976 Town study projected a need for about 2.3 acres of additional land and 185 feet of beachfront, based on a higher population projection than is currently conceived. An additional beach site in the range of two to four acres will be desirable as a long range goal.

Adequate beach access for Town residents will be a positive asset for the community. Beach availability is part of the attraction and enjoyment of living in Old Saybrook. The 20 or so road end access points will be enjoyed by a few; parking is generally not available at these sites. The several association beaches have regularly experienced incursion by non-members; adequate Town Beach would provide opportunity indirectly benefitting the associations.

The location of the site or sites will depend upon property availability. A Town Beach will be compatible with the unstable barrier beach and velocity flood hazard conditions that apply to natural beaches along Chalker Beach, Great Hammock and Plum Bank. Access from Plum Bank Road, a State Highway, will be favorable and convenient to the community. It is recommended that present private association beaches, which serve many property owners in an area, remain as private beaches of the associations.

References:

1. "Old Saybrook Beach Study", The Beach Study Committee, Old Saybrook, Connecticut, October 1971, prepared by Raymond, Parish & Pine, Inc.
2. "The Final Report of the Reevaluation of the 1971 Old Saybrook Beach Study, and a Proposal to Conduct an Engineering Design Feasibility Study", The Beach Study Committee, Old Saybrook, Conn., 1976.

RECREATION BOATING

Recreation boating is a part of the attraction and enjoyment of Old Saybrook. It is an activity that continues to grow. Boating facilities in the Town and the Connecticut River Estuary Region are of regional and Statewide significance.

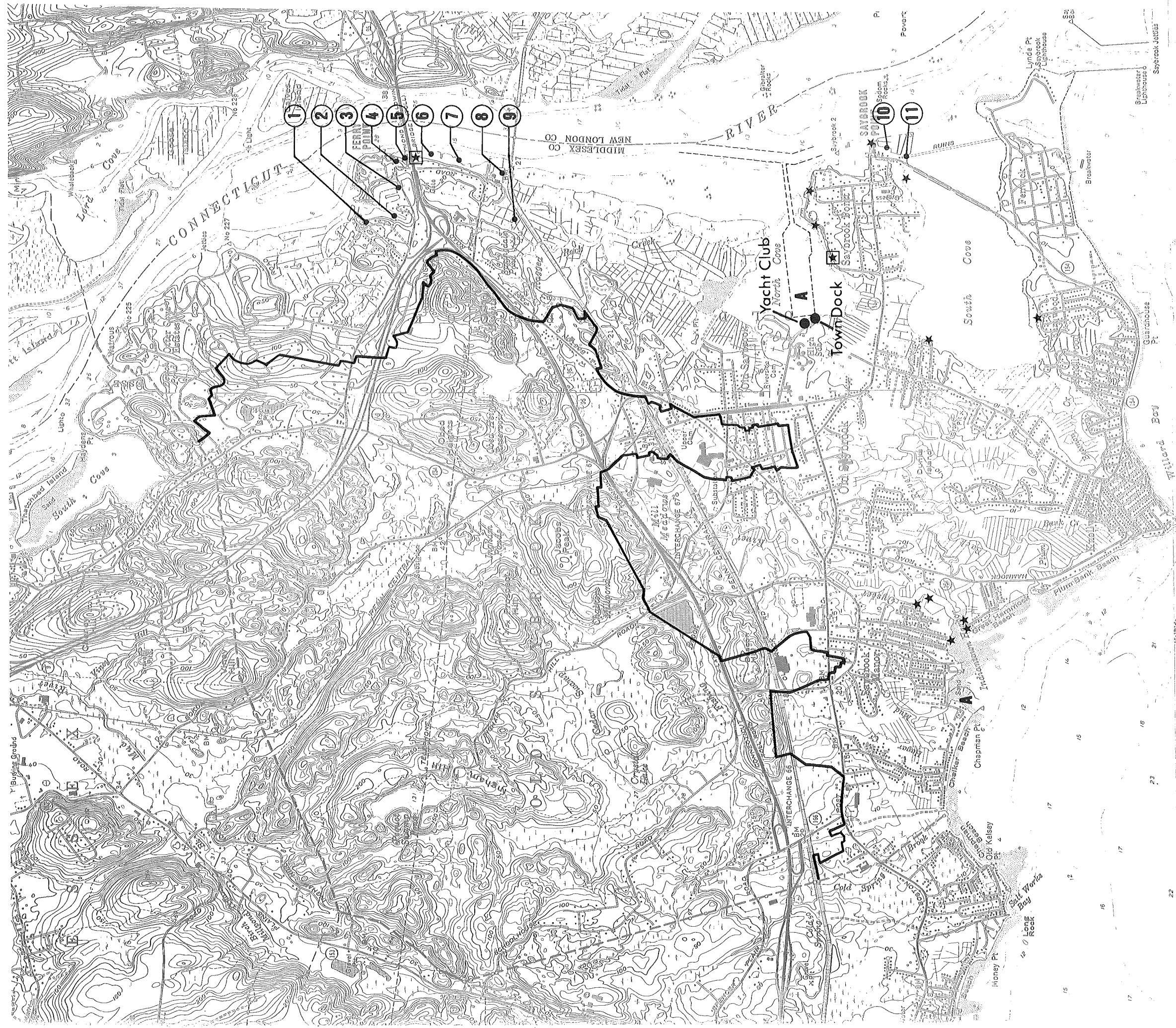
Old Saybrook has an important position both on the Sound and the Connecticut River. Historically, travel and shipping by water have been essential components of the Town's growth and economy. Saybrook Point and Ferry Point areas were important transfer points from land travel to water; there has also been a finfish and shellfish industry. In recent decades boating for recreation has become not only popular but within the means of a large segment of the population.

Within the Town are manmade and natural harbors of refuge, and there are shorefronts with structural improvements for docking. With changes in the State and national economy, past commercial and public travel usage of facilities has largely been replaced by the recreation feature. The vast increase in recreation boating also supports an "industry" — the sales, repair, storage and provisioning of boats of all sizes as well as food, lodging and other services for the participants. Recreation boating supported by a broad market responds to changes in cost (the boat, fuel and docking). It is foreseen that, while there continue to be those who can operate large boats, the emphasis of the future market will be on smaller motorized and sail craft.

Goal: to increase opportunity for recreation boating based in or visiting Old Saybrook, and to provide for the increase in a manner that recognizes a diversity of types of craft and the facilities to be used.

Existing Facilities: Current locations for recreation boating access are identified on Map #4. These include —

- a. 11 marina facilities at Saybrook Point (Area G), River Front and River Front Interior (Areas J-1 and J-2) and Ferry Point (Area J-3); these have a capacity for approximately 853 boats and have facilities as listed on Table #1;
- b. protected and dredged harbors — Indiantown Harbor (private docking for Indiantown Association) and North Cove (a Federal anchorage for 151 craft) and where there is land access at the North Cove Yacht Club (private) and the Town Dock.
- c. many protected, private locations (docks, docking walls, piers and moorings) generally for small boats, as in Cold Spring Brook (Area A-2), Mud/Hagar Creek (Area A-3), Oyster River (Area B) and South Cove (Area F);
- d. public launching locations or ramps as listed on Table #2, some of which are only partially developed; and



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- A** Anchorage Basins
- ☒** Launch Ramps
- ★** Informal Launch Site

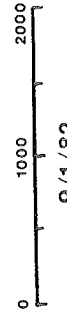
Recreation Boating

See Tables 1 and 2

TOWN OF OLD SAYBROOK, CONNECTICUT

MAP # 4

Old Saybrook Planning Commission



Robert S. Bryan & Associates

9/1/82

TABLE #1

EXISTING MARINAS — OLD SAYBROOK, CT

(Commercial Facilities at the Shorefront - See Map #4)

Map Code	Marina	Tide Mean Range	Approach Depth	Depth in Slips	Number of Slips	Boat Lift	Length of Boats	Electricity	Repairs	Winter Storage	Toilet & Showers	Meals & Lodging	Water & Ice	Diesel Oil	Gasoline
1	G. A. Plumb, Inc.	3	5	4½	24	Yes	25	Yes	Yes	Yes	Yes	No	Yes	No	No
2	Offshore East	3	4½	4	33	Yes	40	Yes	Full	Yes	Yes	No	Yes	No	No
3	Ferry Point Marina	3	4	4½	140	Yes	45	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
4	Seth Persson-Boat Bldr.	3	6	6	4	Yes	45	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
5	Oak Leaf Marina	3	6	3-15	44	Yes	45	Yes	Full	Yes	Yes	No	Yes	No	Yes
6	Yacht Distributors, Inc.	3	6	5	45	Yes	50	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
7	River Landing Marina	3	10	6	200	Yes	70	Yes	Full	Yes	Yes	Yes	Yes	Yes	Yes
8	Saybrook Marine Service	3	9	7	11	No	50	Yes	Full	Yes	Yes	No	Yes	Yes	Yes
9	Ragged Rock Marina	3	10	10	167	Yes	65	Yes	No	Yes	Yes	No	Yes	Yes	Yes
10	Saybrook Point Marina	3	11	7	100	Yes	200	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
11	Hull Harbor One	3	10	8	85	No	100	Yes	Yes	No	Yes	No	Yes	Yes	Yes

SOME PUBLIC ANCHORAGE AND ACCESS TO WATER FOR BOATS
(See Map #4)

A. Anchorage (A):

1. North Cove Anchorage Basin
2. Indian Cove Harbor (docking - private)

B. Town Dock: North Cove at Sheffield Street

C. Launch Ramp (LR):

1. State launch ramp at I-95 bridge (parking)
2. North Cove Road (limited parking)

D. Informal Launching (L):

1. North Cove Road (2) (North Cove)
2. College Street at Saybrook Point
3. Fenwick Street, south of Willard Avenue (South Cove)
4. Shore Avenue & Soundview (South Cove)
5. Fenwood Grove Road (South Cove)
6. Barnes Road (2) (Oyster River at Great Hammock Beach)
7. Whitney Avenue (Oyster River)
8. Pelton Avenue (Oyster River)
9. Middletown Avenue (Sound)

E. Other anchorage, docking wall and tie-up locations not shown (Ferry Point, Connecticut River, Saybrook Point, South Cove, Sound, Oyster and Back Rivers, Mud Creek and Cold Spring Brook).

- e. open water locations, such as off Guardhouse Point, Fenwick and South Cove and the Connecticut River.

Saybrook Point (G) and the River Front and Ferry Point (J-1, J-3) have, from past construction and use, the character of a developed shorefront for docks, slip moorings and land support facilities.

In general, there may be ample water for operation and mooring of the range of boat sizes — water areas either existing or developable. Land support, however, is a critical factor. Space is needed shoreside for parking of cars and trailers of boat users and for repair, service, provisioning and storage. Land support sites are frequently not available at the water, and other uses, such as dwellings, compete for shorefront locations. Water is also often bordered by tidal wetlands which are resources to be conserved.

Policy: as guides for implementation of the recreation boating goal, the following policies apply:

- A. to encourage increased recreational boating use of coastal waters, where feasible, by a) providing additional berthing space in existing harbors, b) limiting non-water-dependent land uses that preclude boating support facilities, c) increased State-owned launching facilities, and d) providing for new boating facilities in natural harbors, new protected water areas and in areas dredged from dry land.
- B. to protect coastal resources by requiring, where feasible, that such boating uses and facilities a) minimize disruption or degradation of natural coastal resources, b) utilize existing altered, developed or redevelopment areas, c) are located to assure optimal distribution of State-owned facilities to the Statewide boating public, and d) utilize ramps and dry storage rather than slips in environmentally sensitive areas.
- C. to protect and where feasible, upgrade facilities serving the commercial fishing and recreational boating industries; to maintain existing authorized commercial fishing and recreational boating harbor space unless the demand for these facilities no longer exists or adequate space has been provided; to design and locate, where feasible, proposed recreational boating facilities in a manner which does not interfere with the needs of the commercial fishing industry.

Proposals:

- 1. North Cove: enlarge the anchorage area in this natural harbor when financially feasible. Channel from the Connecticut River already exists, and dredging of the Cove will not be in conflict with shellfish concentration areas and intertidal flats. A spoil area for dredged material will be necessary. Additional land access will be a necessity. The Town Dock currently lacks convenient parking; a launching ramp would be desirable. Access near the former Town sanitary landfill and off the abandoned railroad embankment are additional possibilities.

2. Developed Shorefront: further development of the Saybrook Point, River Front (and interior) and Ferry Point areas as locations for structural facilities (bulkheads, slip moorings, rack and lift operations) and services. It will be important that non-water dependent uses be excluded from the shorefront and from the adjacent land areas necessary to support the boating activity.

With regard to further construction in these areas, there are small sections of regulated tidal wetlands and there are some dwellings. The condition and viability of these tidal wetland pockets is yet to be investigated. Whether or not the balance of public interest will enable modification of these wetlands or whether or not boating activities can be carried on in a manner that conserves these pockets, are issues yet to be addressed. Significant structural facilities on all other shorefront locations would be in conflict with other coastal policies.

3. Launching Ramps: increase the opportunity for small boat (generally 17' and under) use of launching ramps by —
 - a. continuation and improvement of the State launching ramp at the I-95 bridge; and
 - b. improvement of existing Town launching ramp locations where parking can be provided; addition of new ramp locations where feasible.
4. Moorings: provision for additional boat moorings and tie-ups —
 - a. in tidal creeks (generally for small boats), such as by dredging in the Oyster River in locations and to a depth not in conflict with shellfish development; and
 - b. in main bodies of water such as protected locations along the Connecticut River.
5. Other launching: use of boat lifts and rack storage (generally most useful for boats up to 24') so as to minimize use of boat slip water storage (which is scarce and costly) and so as to avoid despoliation of tidal wetlands.
6. Commercial Fishing: provide within recreation boating facilities suitable locations for a continuing finfishing operation; recognize that re-establishment of a shellfish industry may need shorefront and ground support areas.
7. Water Pollution: carry out a program to assure adequate and convenient facilities for control of sewage from boats, including requirement for such facilities at any major marina.

SHELLFISH

Some 632 acres of shellfish concentration areas are mapped by the Connecticut Coastal Area Management Program as shown on Map #5. These are largely based on historical shellfish bed leasing data and located in nearshore waters, estuarine embayments, intertidal flats and tidal creeks and include Eastern Oyster and hard-shell clams. Shellfish designations are subject to change as more recent information on existing shellfish beds is accumulated. For instance, there is some doubt that South Cove supports a viable shellfish population due to silt dominance of the water and bottom. On the other hand, Map #5 identifies locally found oyster beds in the Oyster River and Back River, where oysters are currently harvested for cleansing.

Taking of shellfish is regulated by the Town health authorities, the State Health Department and the Federal Food and Drug Administration. Shellfishing has been precluded or severely limited in recent years due to poor water quality, which increases risk to public health. There are "open", "closed" and "conditionally open" shellfish areas. In the past there has been commercial shellfishing activity in Old Saybrook, and recreational taking can be a part of use and enjoyment of the shorefront.

Goal: to revive recreational and commercial shellfish taking through reduction in water pollution, proper management of shellfish areas and introduction of culture techniques.

Existing Conditions:

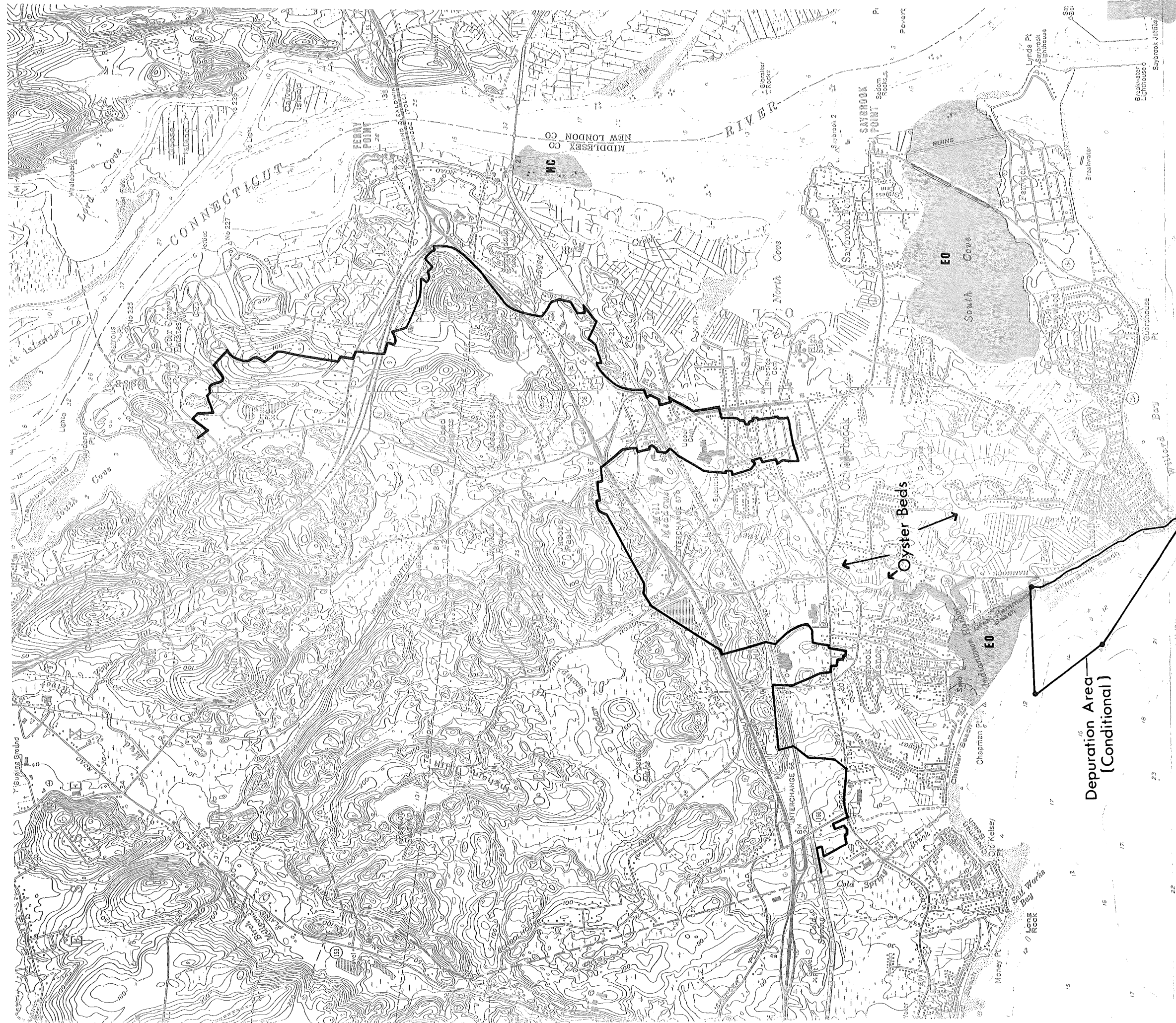
1. Surveys of shellfish areas are currently being sponsored by the State Department of Environmental Protection. The results of these surveys should be important for a future shellfish management program.
2. Excessive concentrations of oysters have been found on shoals in the Oyster River (above Back River) and on Back River, where salinity is less, and the essential sand bottom is available, water is warmer and there is protection from storms. Bacteria count levels in these creeks (probably due to natural outwash and fertilizer rather than septic effluent) exceed accepted limits. For lack of harvesting, beds have become especially thick. In 1981 a project was initiated whereby oysters were removed to a cleansing (deuration) area as shown on Map #5. Criteria set by the State then specified a 14-day cleansing period with less than one half inch of rainfall. The object was a recreational harvest, subject to an individual permit fee which covers the cost of constables.
3. Additional local efforts are underway to introduce and to manage oyster and hardshell clam beds in a variety of locations, such as at the entrance to South Cove and off Ayres Point.

4. Recreation boating, and channel dredging and maintenance therefor, can be consistent with shellfish management under the proper conditions.
5. There is local expectation that a significant oyster and clam recreational harvest can be developed and that an oyster industry can be revived over the next 20 years. The sewer avoidance program, and shellfish testing and management programs, will be important factors.

Policy: as guide for implementation of the shellfish goal, the following policies apply:

- A. along with wise use and preservation of other coastal resources, to consider those measures which will enhance shellfish development for recreational and commercial purposes.
- B. to give priority to shellfish bed areas having the greatest potential for use, including cultivated beds which may be developed for convenient and safe use.

Proposals: These will depend upon shellfish surveys and evaluations being undertaken simultaneously with and subsequent to preparation of this Municipal Coastal Program.



EO Eastern Oyster
 HC Hardshell Clam

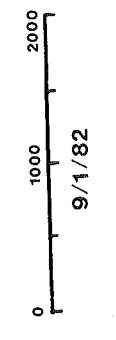
Shellfish

Source : CAM : Shellfish Commission

TOWN OF OLD SAYBROOK, CONNECTICUT

MAP # 5

Old Saybrook Planning Commission



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C O A S T A L G O A L S

DEVELOPED SHOREFRONT (Limited)

"Developed shorefront" in The Coastal Management Act for the State of Connecticut is defined as "those harbor areas which have been highly engineered and developed resulting in functional impairment or substantial alteration of their natural physiographic features and systems." New Haven Harbor and Bridgeport Harbor are examples, and there are no "developed shorefronts" in Old Saybrook.

Saybrook Point (G), River Front and Interior (J-1 and J-2) and Ferry Point (J-3) have characteristics of "limited" developed shorefront. Much of the natural features and systems of the land and edge of water has been altered, and land and water uses are braced with bulkheads, piers, docks, landfill and retaining walls. Reversion of these Connecticut River locations to the natural condition would mean a loss of water dependent use opportunities that are not available elsewhere in Old Saybrook. The current and an extended limited developed shorefront in these locations can support recreation boating, people-to-the-shore and other goals of the Municipal Coastal Program. See Map #6.

Goal: to continue the use and development of existing limited developed shorefront areas for marine-related uses, including recreational boating, recreational and commercial fishing and other uses which enable people to have contact with the resources of the shoreline.

Existing Conditions:

1. Saybrook Point: The riverfront from College Street north has a bulkhead for most of its length to the Town property near the tidal inlet on the north. Ground behind the bulkhead is largely filled land. South of College Street the riverfront has bulkheads, wave retarding walls, piers and a breakwater on the south face. The main navigation channel in the Connecticut River is near, but there is room for additional pier and bulkhead construction. Siltation occurs at existing entrances to marinas; access channel maintenance is a concern.
2. River Front and Interior: Between the railroad and I-95 bridges there are two areas of mapped tidal wetlands and the remainder is developed with bulkheads, piers and walls. Land between the water and Ferry Road has a fairly steep slope and is shallow for support of extensive water activities. The Interior (J-2) has been developed with a navigation canal from the River, leading to private tie-up locations and a dredged basin for slip moorings. The Connecticut River navigation channel is very broad at this location. Siltation and access channel maintenance to the shore is a continuing concern. There are also problems with River ice flows. Major bridge construction for I-95 will affect the northern part of Riverfront.

3. Ferry Point: For several hundred feet north of the I-95 bridge, the riverfront is developed with piers, ramps and bulkheads for commercial services for recreation boating. Siltation and channels are a maintenance concern. That part of the Point facing north has steep slopes and is developed with dwellings. The interior which Ferry Point protects has a channel (continuing maintenance required) to natural and dredged basins where there are walls and boat slips.

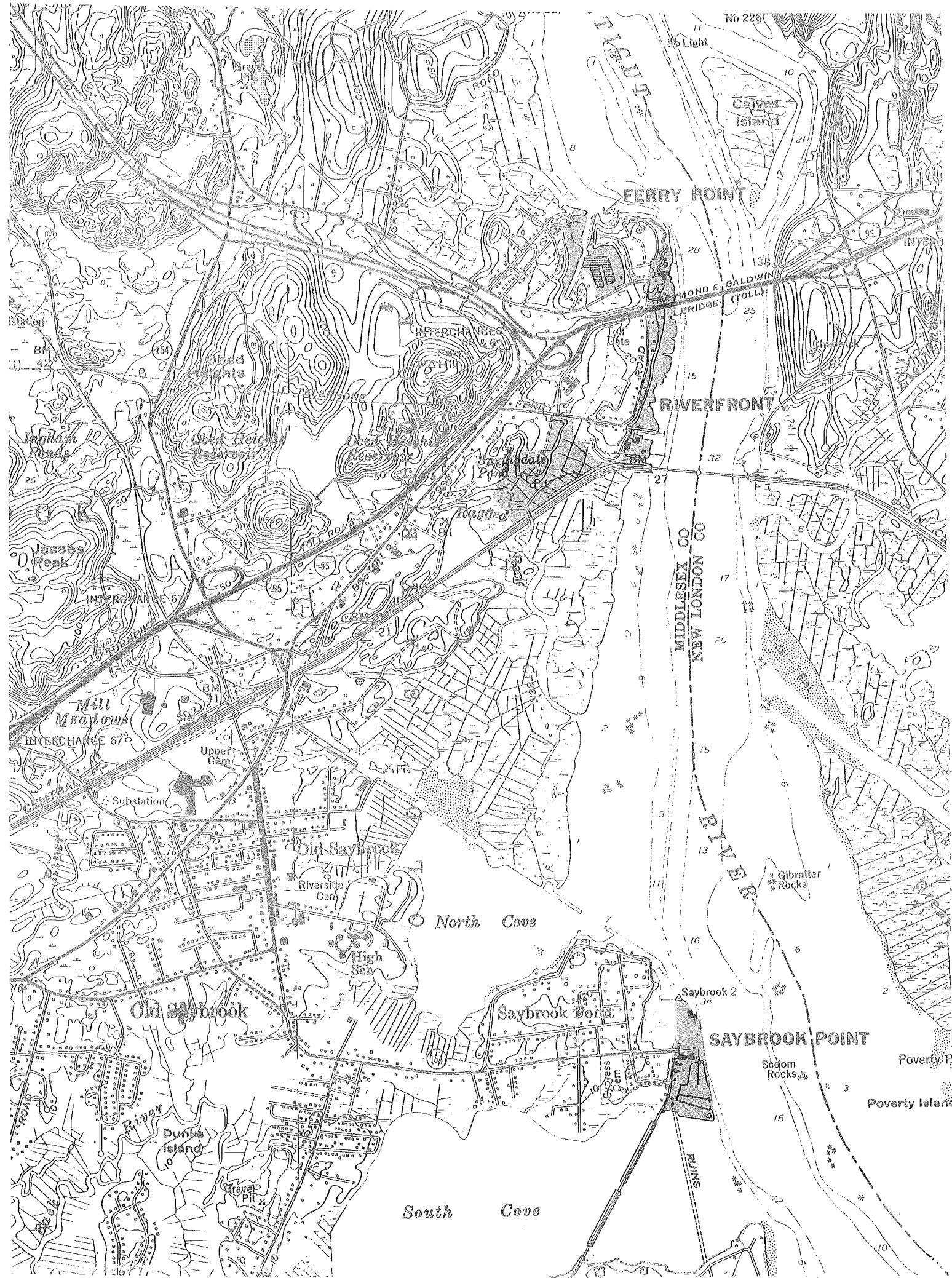
Policy: as a guide for implementation of the Developed Shorefront (Limited) goal, the following policy applies:

- A. to give highest priority and preference to water-dependent uses and facilities that are consistent with the above Goal.
- B. to assure that such water-dependent uses have adequate support land for off-street parking, on-site sewage disposal and other services.
- C. to avoid congestion of navigation channels, and to assure adequate maintenance of access channels and removal of hazards to navigation.
- D. to require that structures be designed, constructed and maintained to minimize adverse impacts on coastal resources, water circulation and sedimentation patterns, water quality and flooding and erosion.

Proposals:

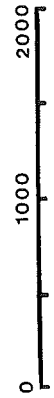
1. Saybrook Point: A Special Study of Saybrook Point is being undertaken simultaneously with preparation of this Municipal Coastal Program.
2. Piers and Bulkheads: Based on adequate environmental and engineering study of the limited developed shorefront areas, consideration should be given to establishment of bulkhead and pierhead lines which will achieve the above Goal and be in accordance with the above Policies.
3. I-95 Bridge: The design and construction of the I-95 bridge improvements should protect the use and potential improvement of Developed Shorefront (Limited) areas.

Note: See also Coastal Goals: Recreation Boating and People to the Shore.



MAP # 6

Developed Shorefront
TOWN OF OLD SAYBROOK, CONNECTICUT



Old Saybrook Planning Commission

9/1/82

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C O A S T A L G O A L S

WETLANDS

Tidal and freshwater wetlands are shown on Map #7 and cover almost 25% of the Coastal Boundary area of Old Saybrook as follows:

tidal	-	1,335 acres or 22.0%
freshwater	-	178 acres or 2.9%

All activities in tidal wetlands are regulated under the Connecticut Department of Environmental Protection (DEP) tidal wetlands permit program, except State Health Department mosquito control activities, DEP conservation activities, construction and maintenance of navigation aids and activities authorized in emergency decrees of the Town Director of Health. Approximately half of the tidal wetlands (687 acres) are owned by the State of Connecticut.

As authorized and mandated by State law, freshwater wetlands (inland wetlands and water courses) are regulated by the Town Inland Wetlands Commission.

Tidal wetlands have natural functions that are of value as a) sources of nutrients for finfish, crustacea and shellfish, b) habitats for plants and animals, c) support for marine commerce, recreation and aesthetic enjoyment, d) reduction of flood damage and e) absorption of silt and wastes that otherwise would reach channels and harbor areas. Many of Old Saybrook's tidal wetlands are man caused — the result of upstream deforestation and construction plus erosion and downstream siltation to bays and flats where marsh grasses have grown. Freshwater wetlands have functions similar to tidal wetlands. The major inland wetlands are located outside the Coastal Boundary; those within are tributary to tidal wetlands, creeks and channels.

In Old Saybrook, tidal wetlands are also especially significant for their scenic value as part of the coastal environment. As open space, they establish the pattern of land development and define neighborhoods; they are also coastal flood hazard areas.

Goal: to maintain all existing viable tidal wetlands and freshwater wetlands for their natural function and social benefits, providing for modification of tidal wetlands only to implement other established coastal goals and policies.

Existing Concerns: While all wetlands are regulated and much of the tidal wetland is State owned, the decision to preserve or modify is made by public agencies based

on policies and guidelines applicable at the time. There are tidal wetlands which are private investment property, and some areas for concern are as follows:

1. designated tidal marsh areas that are mapped in streets and building lots (east side of Saybrook Manor along the Oyster River; west side of Indian-town along Mud Creek; east and west sides of Chalker Beach near Hagar Brook and Cold Spring Brook);
2. tidal creeks and wetlands that extend through and are part of the drainage for commercial and industrial areas;
3. while the Zoning Regulations provide a 50 foot building setback from tidal and inland wetlands, parking and storage areas may meet the wetlands and specific erosion and sedimentation control measures are not in effect for ordinary dwelling and subdivision construction; and
4. Marine Commercial zones on the Zoning Map that overlap substantial wetlands areas.

As of current time there are no significant wetlands despoliation activities in process.

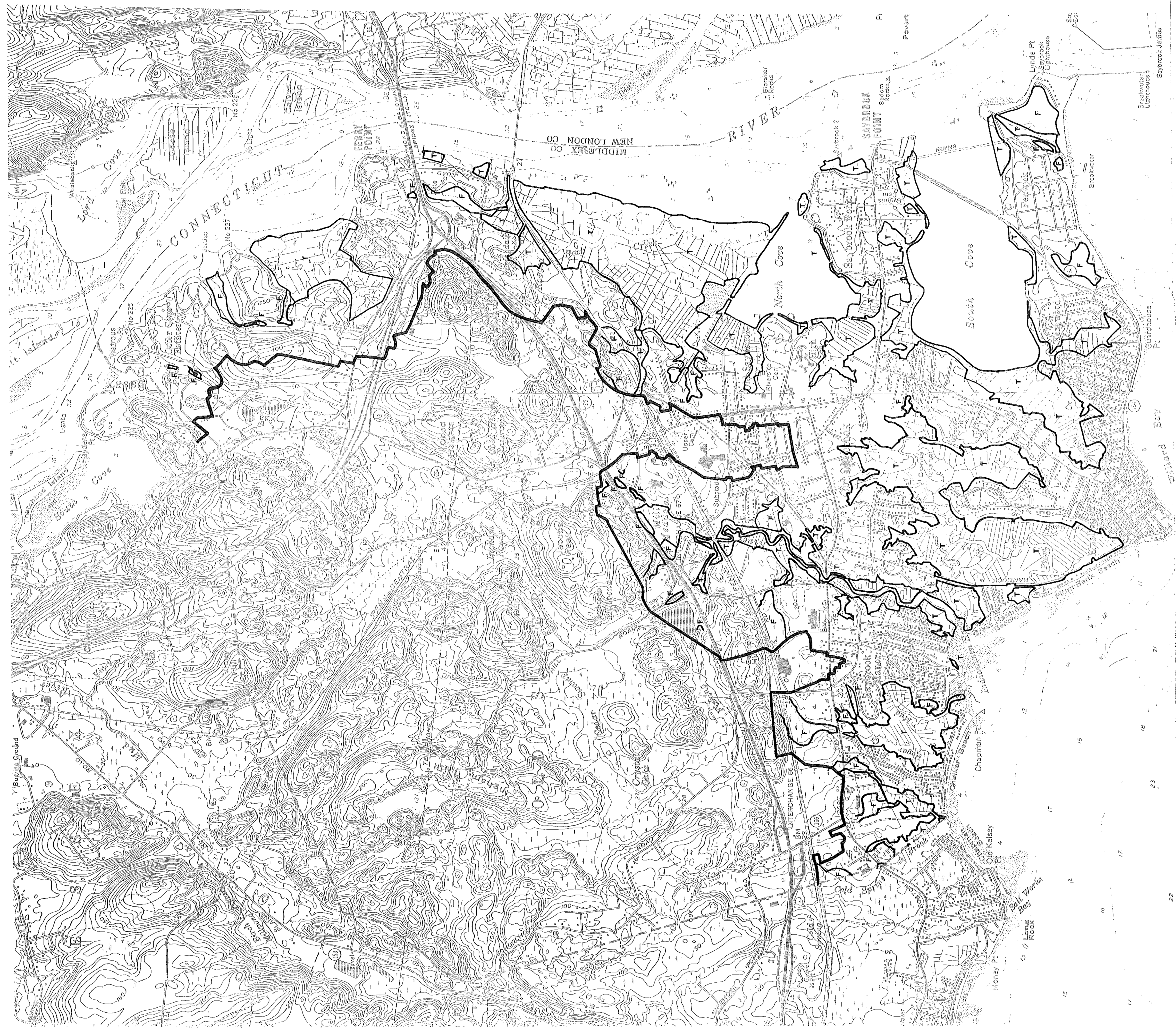
Policies: as a guide for implementation of the wetlands goal, the following policy applies:

- A. to preserve tidal wetlands and to prevent the despoilation and destruction thereof in order to maintain their vital natural functions; to encourage the rehabilitation and restoration of degraded tidal wetlands and where feasible and environmentally acceptable, to encourage the creation of wetlands for the purposes of shellfish and finfish management, habitat creation and dredge soil disposal.
- B. to conserve and protect freshwater (inland) wetlands from excavation, deposit and degradation in order to continue their natural function as filters, stormwater detention areas and habitat for flora and fauna, and similarly to conserve and protect inland water courses in order to maintain water quality and the natural dynamics of stream flow.

Proposals:

1. Ownership:

- a. encourage acquisition (by purchase, gift or devise) of tidal wetlands by public or private agencies devoted to conservation activities.
- b. provide for open space use assessment of regulated private investment owned marshes by designating them upon plan of development as open space; and
- c. encourage resubdivision of lots and streets having tidal wetland designation into open space tracts.



T Tidal Wetlands
 F Freshwater Wetlands

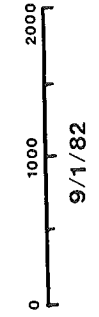
Wetlands

Source : CAM

TOWN OF OLD SAYBROOK, CONNECTICUT

MAP # 7

Old Saybrook Planning Commission



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2. Commercial Development: provide as part of the site plan approval procedure of the Zoning Regulations for disclosure of the keeping of toxic materials and provision for their management at commercial and industrial establishments (see Technical Supplement #2).
3. Setbacks/Erosion Controls: extend the 50 foot setback requirement from tidal wetlands to include "outside storage" in commercial and industrial areas; provide for specific erosion and sedimentation control plans and measures for all new construction (see Technical Supplement #2).
4. Marine Commercial: add a site plan standard under the Zoning Regulations that addresses how permitted marine commercial uses may be established in a manner consistent with the above policies (see Technical Supplement #2).
5. Inland Wetlands: provide for a regulated area (50 feet) around inland wetlands and water courses for review of activities that may affect these resources.

C O A S T A L G O A L S

SEWER AVOIDANCE/WATER QUALITY

The "sewer avoidance program" for the Town of Old Saybrook is indeed a long term, 50-year plan and program for addressing the sewage disposal needs of the community. Parts of that program include —

- a. built-up geographic areas where on-site sewage disposal systems and their effective operation are to be monitored; and
- b. built-up geographic areas where "community" sewage collection systems are proposed, with transmission and disposal to in-ground leaching systems at another area.

Map #8 shows the monitor and community system areas and potential community system disposal sites as recommended in the Malcolm Pirnie, Inc. engineering report (identified in the inventory of coastal resources that is a part of this document). The monitor and community system geographic areas are within the Coastal Boundary as are some of the potential community system disposal sites.

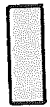
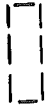

The overall sewer avoidance program is essential for the protection of the public health and the quality of surface and groundwater within the Coastal Boundary (and the Town as a whole).

Goal: to assure proper provision for sewage disposal and maintenance of water quality within the Coastal Boundary and in a manner that meets established standards and supports other coastal goals and policies.

Existing Conditions:

1. The public health officials of the Town conduct a continuing program of investigation of individual, on-site sewage disposal problems. In general, individual "point sources" of pollution (to ground surface and surface waters) have been identified and corrected. Non-point sources (geographic areas with disposal deficiencies) are the principal cause of coliform pollution in tidal creeks and nearshore waters. These creeks and waters also receive drainage discharge from upland areas outside the Coastal Boundary.
2. Under the State Public Health Code, marinas are required to provide toilet facilities, and law prohibits discharge of wastes from boats in harbor areas. Pump-out facilities for boats at marinas are part of the State guidelines for marina development.
3. There is a continuing potential for oil and chemical spills from ships and barges on the Sound and Connecticut River. A nominal spill containment program, generated at the State level, is in place.



-  Areas Needing Sewers
-  Areas to Monitor
-  Potential Disposal Sites

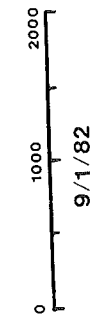
Sewer Avoidance Program

Source: Malcolm Pirnie, Inc. Report

TOWN OF OLD SAYBROOK, CONNECTICUT

MAP # 8

Old Saybrook Planning Commission



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4. Some commercial and industrial enterprises are potential sources for discharge of petroleum products, chemicals and toxic wastes to the groundwater, freshwater wetlands, tidal wetlands and tidal creeks (and their upland tributary water courses). This would be a matter of general concern in the Town and is not applicable solely to the Coastal Boundary area.
5. Geographic areas identified for community sewage disposal systems include many seasonal dwellings and some buildings in velocity (wave action) coastal hazard areas. In addition, there are vacant lots within these areas, and adjacent are unbuilt but mapped streets and lots in coastal hazard areas and on tidal wetlands. The community sewer system will enable additional conversion to year-round occupancy and building on vacant lots. Enlargement and extension of existing buildings may become feasible, and there may be proposals to use and develop "paper" streets and lots.

Policies: as guides for implementation of the sewer avoidance/water quality goal, the following policies apply:

- A. to assure maintenance of water quality standards through the sewer avoidance program and a continuing program of monitoring pollution sources.
- B. to encourage State and Federal programs designed to a) minimize risk of spillage of petroleum products and hazardous substances, b) provide effective containment and cleanup facilities for accidental spills and c) disallow offshore oil receiving systems that have the potential to cause catastrophic oil spills in the Sound and Connecticut River.
- C. to limit the community sewer systems to abatement of existing sources of pollution, expressly excluding extension to "paper" streets and lots that are subject to coastal hazards or tidal wetlands, and avoiding intensification of existing building development except in accordance with current zoning and flood plain management standards.

Proposals:

1. Suitable disposal sites for support of the community sewerage system areas should be identified and acquired by the Town as an urgent need. Potential sites are few in number and are subject to loss through private building development.
2. The plan for community sewerage systems should preclude service to property where building would be contrary to Coastal Goals concerning tidal wetlands and coastal hazard areas.
3. In connection with new commercial and industrial building development generally, there should be disclosure of chemicals and hazardous substances to be used or stored and provision assured for proper storage, use and management of such substances and petroleum products (see Technical Supplement #2).

C O A S T A L G O A L S

COASTAL HAZARD AREAS

Flood hazard areas in Old Saybrook (upland and coastal) have been defined by the Federal Emergency Management Agency based on technical studies and mapping. The coastal hazard area consists of areas having a one percent (1%) chance of flooding from Long Island Sound and its tidal creeks and embayments in any given year.

The coastal hazard area (see Map #9) covers approximately 2,680 acres or 44% of the Coastal Boundary. Within the coastal hazard area is the "velocity hazard area" (potential for wave action) which covers approximately 187 acres and affects significant developed areas at —

- a. Chalker Beach — to about 200' north of Beach Road and Belaire Drive;
- b. Indiantown/Saybrook Manor — to about 200' north from Red Bird Trail;
- c. Great Hammock Beach and Plum Bank Beach — all to Plum Bank Road;
- d. Fenwick — Sound and River frontages; and
- e. Saybrook Point — generally east of Bridge Street and Fort Saybrook Park.

It is understood that the 1938 Hurricane took down most of the structures in the velocity hazard areas at Chalker, Great Hammock and Plum Bank Beaches. Beyond the velocity hazard areas, property in the overall coastal hazard area is subject to rising water in severe storms.

Goal: in coastal hazard areas, to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions, and specifically to —

- a. protect human life and public health;
- b. minimize expenditures of money for costly flood control projects;
- c. minimize the need for rescue and relief efforts associated with flooding;
- d. minimize prolonged business and employment interruptions;
- e. help maintain a stable tax base;
- f. ensure that purchasers of property are notified of special flood hazards; and
- g. ensure that persons who occupy areas of special flood hazard assume responsibility for their actions.

Existing Conditions and Flood Plain Management: Flood hazard potentials, both coastal and upland, affect broad areas of the Town and are a continuing factor in land planning and development. A Town Flood Plain Management Program is already in effect, and, as a result, property owners are eligible to obtain flood damage insurance. Principal elements of the Program are —

1. the "Flood Plain Management Ordinance", adopted by Town Meeting in 1978, and which, inter alia —
 - a. incorporates maps of special flood hazard areas (upland and coastal hazard areas, including the velocity hazard V-7 areas);
 - b. requires the property owner to obtain a Flood Hazard Area Permit from the Town for any new construction as well as for "substantial improvement" of existing buildings;
 - c. specifies that the lowest floor elevation be 11 feet above mean sea level (MSL) in coastal hazard areas (or have flood proof construction for commercial, industrial and nonresidential structures);
 - d. in velocity hazard areas, specifies that buildings be elevated (14' MSL by State Building Code), be anchored and with no fill used for structural support, and have no enclosure below 14' MSL except break-away walls and no human habitation below that elevation;
 - e. establishes criteria for protection of water supply, sanitary sewers and on-site septic systems;
 - f. provides various administrative measures, including engineering and architectural certifications that buildings have been constructed to flood protection specifications; and
 - g. provides for variances to be granted by the Zoning Board of Appeals when the new construction or "substantial improvement" is on a lot of one half acre or less and is contiguous to or surrounded by lots with existing structures built below the above base flood elevations.
2. the "Zoning Regulations", which incorporate a Flood Plain District (same as the Ordinance), require flood plain data to be presented as part of site plans and plot plans and generally coordinate zoning administration with the Ordinance.
3. the "Subdivision Regulations", which require maps and plans to show flood hazard areas and minimum floor elevations for each lot and require plans for protection of utilities and safe use of each lot.
4. the "State of Connecticut Basic Building Code", which incorporates certain flood plain management standards.

As defined in the Ordinance, "substantial improvement" means "any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50%

of the market value of the structure either a) before the improvement or repair is started or b) if the structure is damaged and is being restored, before the damage occurred." Variances requested from the Zoning Board of Appeals are also subject to review by the State Department of Environmental Protection. To be granted, the Board must find that a hardship exists and the criteria for variance set forth in the Ordinance will be met. Construction under a variance may cause an increase in flood insurance rates paid by the property owner.

The Flood Plain Management Program is carefully administered on a continuing basis. A flood emergency and disaster program is also in effect.

The velocity hazard areas include barrier beaches at Chalker, Great Hammock and Plum Bank Beaches and at Fenwick. In a natural state these beaches build up and erode, are a barrier between the Sound and water or wetlands inland and are potentially hazardous for building development. The beach lies well below the 11' or 14' MSL minimum building elevations.

At Chalker, Indiantown, Saybrook Manor, Great Hammock and Plum Bank, the velocity hazard area is mapped in streets and building lots, typically 50' to 70' by 100' in area. Most of the lots are occupied by dwellings, the majority of which are only seasonally occupied. The extent of damage during a major storm will vary depending upon intensity, direction, timing and duration; casualty could vary from minor damage and wash outs to substantial loss (collapse of structures). The conditions and circumstances at these beaches, in a velocity hazard area, are clearly different from lesser hazard potentials in other parts of the coastal hazard areas.

Policy: The following policies apply as guides for the coastal hazard area:

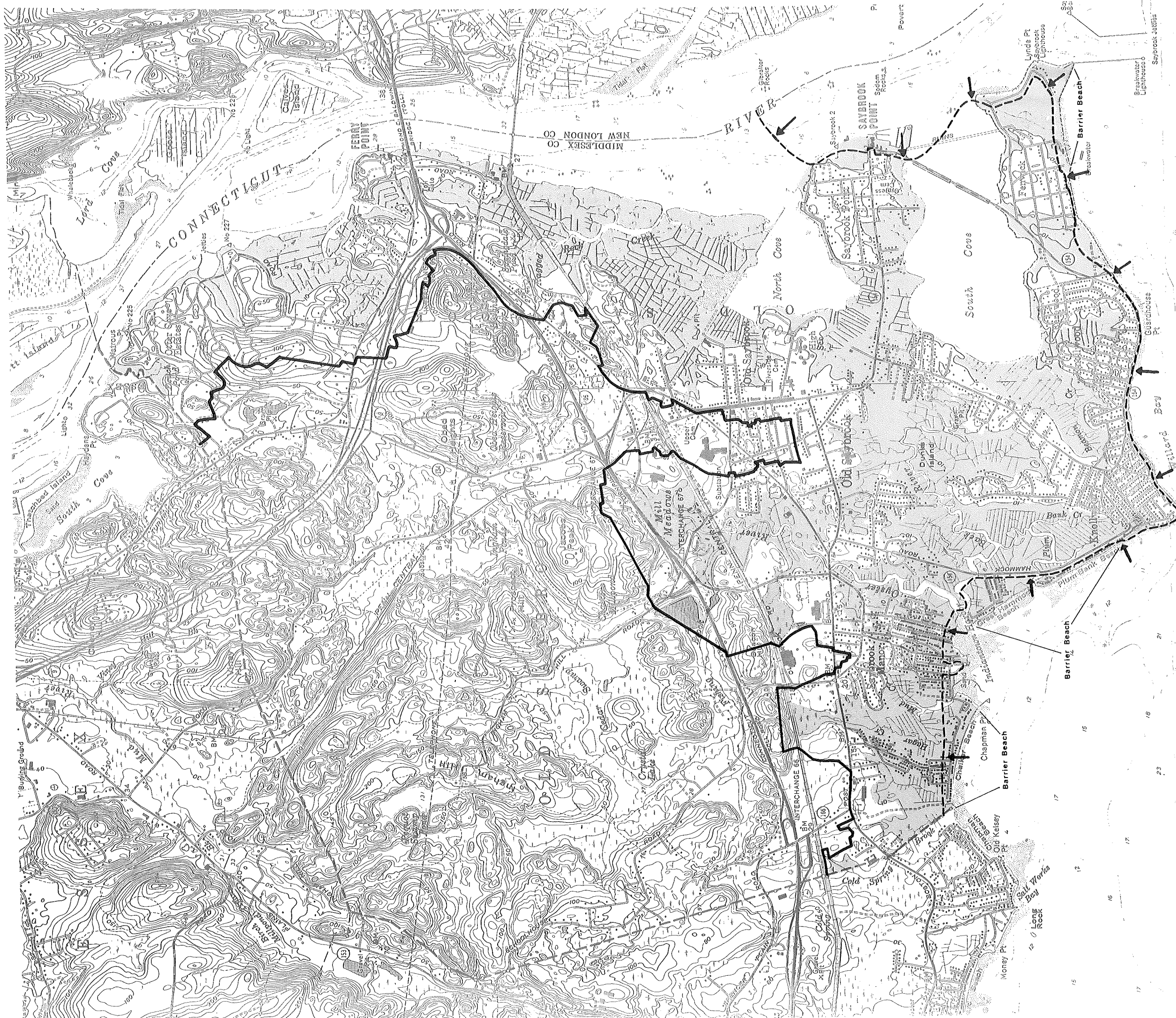
- A. to manage coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized and to promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, infrastructural facilities or water-dependent uses.
- B. to preserve the dynamic form and integrity of natural beach system 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.

Proposals:

1. Program: to continue careful administration of the Flood Plain Management Program, and to maintain the flood emergency and disaster program in a state of readiness.

2. Velocity Hazard Areas: with regard to these areas —

- a. to identify velocity hazard areas as special problem areas on planning and zoning maps of the Town.
- b. in the event that a major storm or other catastrophe were to occur, it is recommended that rebuilding of individual properties be permitted consistent with Flood Plain Management standards in effect at the time, and that the Town should examine best means for replacement of the supporting infrastructure (streets, drainage, water supply, etc.).



▭ Coastal Hazard Areas (100 year frequency)

- - - - - Velocity Hazard Areas

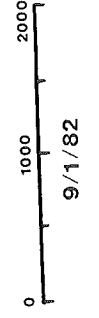
Coastal Hazard Areas

Source : CAM ; Flood Insurance Rate Map

TOWN OF OLD SAYBROOK, CONNECTICUT

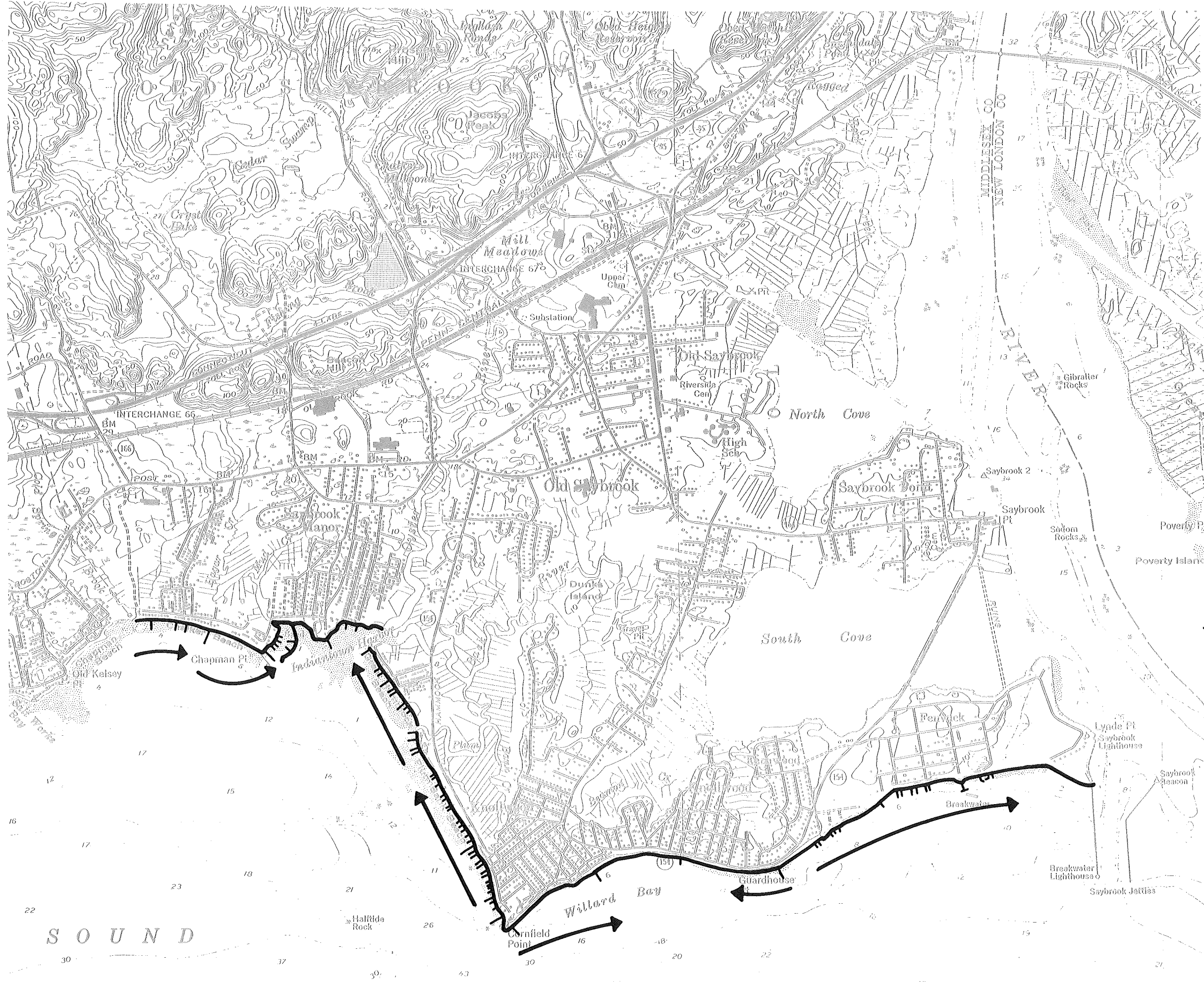
MAP # 9



Old Saybrook Planning Commission



9/1/82

Robert S. Bryan & Associates



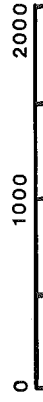
 Beach and groins, jetties
 Dominant Direction of Alongshore Drift

Beach Erosion

Source: CAM: Navigation Chart

TOWN OF OLD SAYBROOK, CONNECTICUT

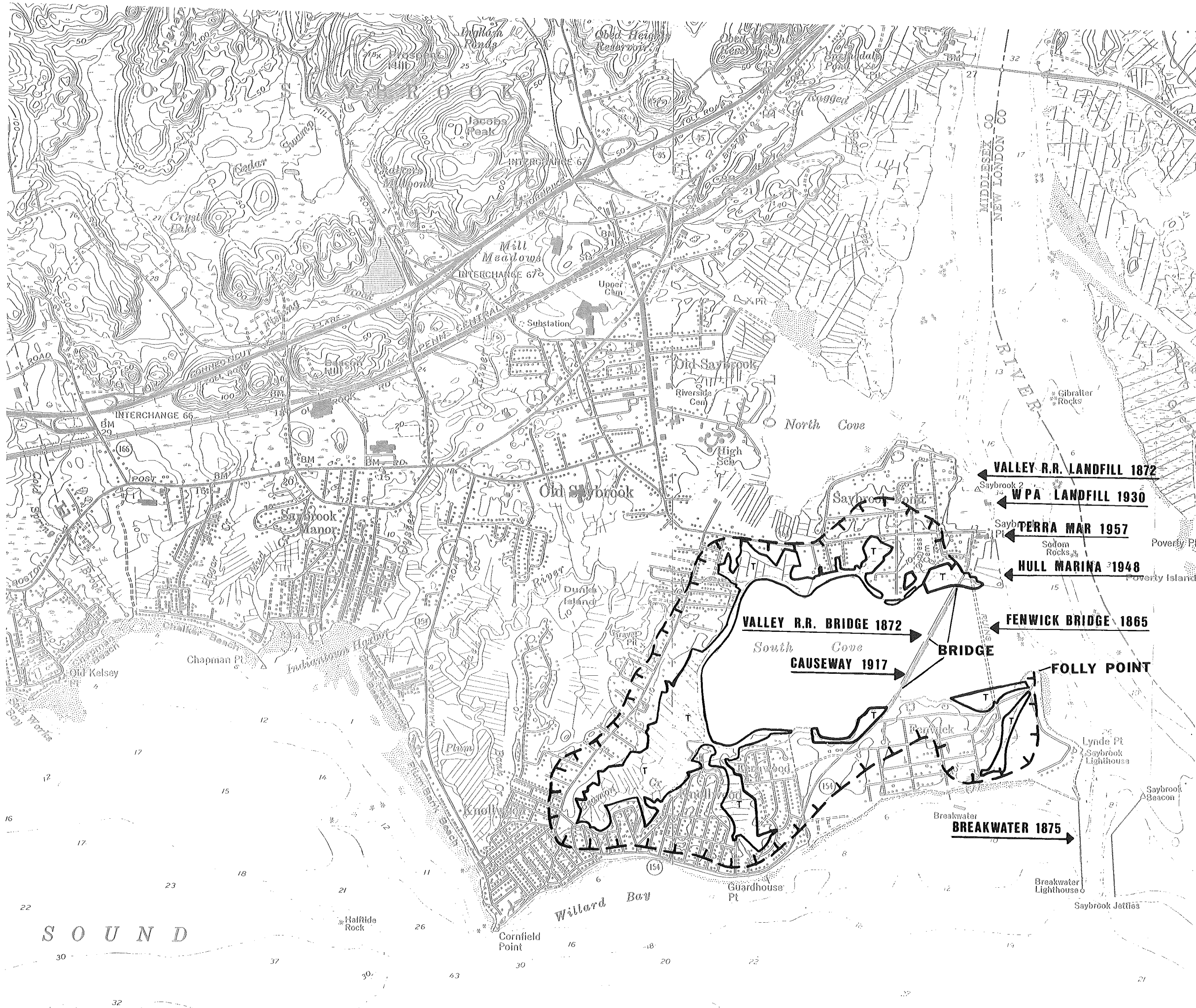
MAP # 10



Old Saybrook Planning Commission

9/1/82

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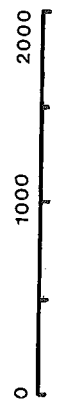


Watershed Boundary
 Tidal Marsh

Source : Causeway Study

MAP #11

TOWN OF OLD SAYBROOK, CONNECTICUT



Old Saybrook Planning Commission

9/1/82

South Cove

Robert S. Bryan & Associates

VALLEY R.R. LANDFILL 1872
 WPA LANDFILL 1930
 TERRA MAR 1957
 HULL MARINA 1948

VALLEY R.R. BRIDGE 1872
 FENWICK BRIDGE 1865
 BRIDGE
 SOUTH COVE CAUSEWAY 1917
 FOLLY POINT

BREAKWATER 1875

SOUND

BEACH EROSION

Erosion of beaches and maintenance of the desired beach width and configuration are of continuing concern. The general circumstances are that man's creations — the bounds of lots and property, and buildings — have a fixed location on the face of the earth while beaches are dynamic and ever changing.

Beaches shrink by erosion and build up by sedimentation. Sources of sand are bars in the Sound and the manufacture of sand at rocky shorefronts. Some beaches are backed up by uplands, such as the bluffs and escarpments from Cornfield Point to Guardhouse Point. Others are barrier beaches (Chalker, Great Hammock, Plum Bank and Fenwick) which by natural function move forward and back and can build up in dunes or disappear in a major storm.

The 5.29 miles of beach in Old Saybrook are a major asset by which people use and enjoy the shore. Beaches also provide wildlife habitats, reservoirs for sand supply and buffer from coastal flooding. Large amounts of private, community association and public funds are expended to preserve and maintain beaches, largely for recreation use and in relation to man's fixed improvements on the shore. A good beach is a substantial component of the value of property at the shorefront.

Goal: to conserve, maintain, restore and wisely use the miles of beach available in Old Saybrook for recreation and for their natural resource advantages.

Existing Conditions: In the effort to manage beaches for human benefit, many groins and jetties have been constructed at right angles to the beach to capture or retain sand. Walls have been placed at the back of beaches to contain sand as well as the thrust of wave action. Jetties have been built for harbor protection (cf. Indiantown); some capture sand and decrease sedimentation in harbor and navigation channel areas. Beach erosion control has been a matter of continuing concern at Chalker Beach and Indiantown/Saybrook Manor, at Great Hammock and Plum Bank Beaches (which are barrier beaches) and the beach north of Cornfield Point.

Map #10 shows the general direction of sand drift along the shore, reflecting currents and the configuration of the shore and bottom of the Sound. Map #10 also shows many of the groins and jetties that have been constructed. Some of these works are successful for individuals; some have the effect of deterring natural drift, thereby starving down-current beach locations. If one could relive an earlier time, avoidance of any building on or adjacent to the beach might have been a better plan.

Policies: as guides for implementation of the goal concerning beach erosion, the following policies apply:

- A. as any development adjacent to the beach occurs, to preserve the dynamic form and integrity of the natural beach system.

- B. to insure that coastal uses are compatible with the capability of the natural beach system and do not unreasonably interfere with the natural processes of erosion and sedimentation.

Proposals:

1. Program: to encourage and support a program by the State of Connecticut or other sufficient level of government to monitor beach erosion and sedimentation experience and to plan for overall maintenance of beaches and the natural beach system; an area of special concern will be the entire shorefront from Cornfield Point north and west to Cold Spring Brook.
2. Modified Beach: to encourage the restoration and enhancement of beach systems that have already been modified.

Note: See also Coastal Goal: Coastal Hazard Areas.

SOUTH COVE

South Cove is an estuarine embayment that is a westward extension of the Connecticut River embayment. The Cove is bordered on the south by the Fenwick peninsula and on the north by the Saybrook Point peninsula. The Causeway (Conn. Route #154) connects Saybrook Point with Fenwick by crossing the Cove. There are three openings in the Causeway for tidal passage. West of a straight line between Folly Point at Fenwick and Hull Harbor Marina at Saybrook Point, South Cove consists of about 421 acres (120 acres east of the Causeway and 301 acres inboard).

Based on historical maps and observation in recent decades, South Cove is filling with silt. The Cove is undergoing a natural and accelerated change from open water to emergent salt marsh.

In 1974 the Connecticut Department of Transportation (DOT) proposed to close the northerly and southerly Causeway openings and to construct a center span bridge so as to conform the highway to accepted design standards. In the absence of an environmental evaluation by DOT, the Town of Old Saybrook appointed the Causeway Study Committee to assess the impact of the DOT proposal on the ecology, to suggest alternatives if the plan were inadequate or undesirable and to assess the impact of alternative plans on the Cove ecology and Causeway recreation and traffic. The report was issued in 1975, identified seven alternatives and indicated need for comprehensive study. See Map #11 for various features of South Cove.

South Cove is currently a major water feature. It is capable of use only for small boats (due to shallow depth and low passages at the Causeway). Larger boats use the outboard side. Salt marsh has begun to develop around the edge of the Cove west of the Causeway. The Causeway itself is a scenic route of State-wide significance and is also a route of convenience and for emergency services within the Town. While popular for recreation fishing, the Causeway is narrow and dangerous to walk or bicycle; a few parking spaces are available at the south end.

Goal: to retain South Cove as a water area for ecological and recreational values while continuing the Causeway, or a modified or replacement highway, for scenic, convenience and emergency travel and with safe provision for fishing, pedestrians and bicycles.

Conditions and Trends:

South Cove was first crossed (1860 - 1870) by a pile type bridge — Fenwick Bridge — for pedestrian travel. In 1872 a tressle type railroad bridge was completed on the location of the current Causeway. In the 1900 - 1910 period Fenwick

Bridge was widened as a tressle structure for automobile traffic. In 1916 - 1918 the railroad bridge was converted to the present Causeway configuration and the Fenwick Bridge was removed (ruins still visible).

Studies so far indicate that the plume of sediment in the Connecticut River stalls above Folly Point and backs into South Cove. The two southerly most passages under the Causeway are narrow and, for lack of sufficient flow, cause silt to drop out in the Cove. Primary siltation in South Cove is from the River and not from upland sources in the watershed of the Cove. It is apparent that the siltation is natural but is man caused by the configuration of the Causeway.

Current problems consist of the siltation process and safety deficiencies for fishing, pedestrians, bicycles and cars on the narrow Causeway.

Proposal:

1. To undertake a comprehensive study of the bathymetry of South Cove including trends in sediment deposit and salinity, and appropriate modifications to the Causeway, with a view to achieving the Goal set forth above. The study should include consideration of elements such as the following:
 - a. improved pattern of water circulation for the interior portion of the Cove, providing for reduced siltation and improved flushing of the Cove;
 - b. protection of coastal resources such as tidal wetlands;
 - c. improved potential for navigation and recreation boat anchorage;
 - d. improved recreational use and public access along the Causeway, taking into account sidewalks and bikeways, parking and fishing opportunity;
 - e. continued scenic view opportunity from the Causeway, and improved safety for pedestrian and vehicular travel; and
 - f. maintenance of the Causeway as a circulation route and at an elevation to reduce flood susceptibility.

References:

1. "Causeway Study Committee Final Report", June 5, 1975 (and references therein).

A D M I N I S T R A T I O N

There is no "super agency" to administer a municipal coastal program for Old Saybrook's Coastal Boundary Area. There are many "involved" public agencies. Those at the Federal and State level are directed by Legislative action to be guided by established policies for the Connecticut Coastal Area. Those at the regional and local level interact with other involved agencies and are to be guided by the Municipal Coastal Program. Common policy is to provide unity of purpose at all levels.

Involved Agencies

Listed on ATTACHMENT #3 is a series of public agencies known to be involved in the wise use, protection and enhancement of coastal resources in Old Saybrook. A cursory identification of function or responsibility is given for each.

Implementation

The Municipal Coastal Program contains 10 Coastal Goals and specific policies and proposals for each. Many of the proposals require interaction among involved agencies listed on ATTACHMENT #3.

Proposals are to be implemented or administered. The following summary listing identifies the suggested responsibilities:

People to the Shore:

1. The Saybrook Point Special Study is being administered by the Saybrook Point Study Committee. The Plan would be considered for adoption by the Planning Commission; zoning would be modified by the Zoning Commission.
(Details of recommendations are not available.)

PUBLIC AGENCIES INVOLVED IN COASTAL RESOURCE MANAGEMENT

Federal Agencies

1. Army Corps of Engineers
 - planning and construction of harbors and navigation channels; permits for dredging in navigable waters; permits for wetlands modification; projects for erosion control, flood protection, beach restoration; spoil areas.

2. Department of Transportation
 - a. Coast Guard
 - navigation aids; navigation assistance and rescue; permit review for bridges and structures re. navigation.

 - b. Bureau of Highways
 - Baldwin Bridge authorization.

 - c. Northeast Corridor Improvement Project
 - railroad electrification and improvements.

 - d. AMTRAK
 - lift bridge.

3. Federal Emergency Management Agency
 - flood hazard area mapping, flood insurance subsidy and administration; disaster assistance.

4. Department of Agriculture
 - a. Soil Conservation Service
 - land planning and soils mapping; erosion and flood control projects; agricultural information.

5. Food and Drug Administration
 - shellfish for consumers.

6. Department of the Interior
 - a. U. S. Geological Survey
 - land and water surveys and mapping.

7. Environmental Protection Agency
 - national air and water quality standards; waste water pollution control funding and standards; management of hazardous wastes.

State Agencies

1. Department of Environmental Protection
 - Coastal Area Management research and planning; tidal wetlands - mapping, regulation, permits; air and water quality standards and control; sewage disposal permits; beach erosion control; dredging permits; State property acquisition and management; review of flood plain management variances.
2. Department of Health
 - Public Health Code; regulation and permits for sewage disposal, water supply, shellfish taking, etc.
3. Department of Public Safety
 - State Building Code, including flood hazard area standards; disaster assistance.
4. Department of Transportation
 - highways; Baldwin Bridge; the Causeway; railroad and lift bridge.
5. Harbormaster (local)
 - assignment of docking and anchorage; mitigation of obstructions; aid to navigation.

Regional

1. Connecticut River Gateway Commission
 - planning; local regulation review and minimum criteria; property acquisition.
2. Connecticut River Estuary Regional Planning Agency
 - research and planning; local regulation review.

Town

1. Board of Selectmen
 - Town administration; budget preparation; property negotiation.
2. Public Health (Director; Sanitarian)
 - Administration of Public Health Code; shellfish taking; sewage disposal and well permits; septage lagoon; pollution source investigation.
3. Planning Commission
 - planning; lead agency - Municipal Coastal Program; subdivision regulation and approval, (including flood plain features); municipal project review, Sec. 8-24; Coastal Site Plan reviews.

Town (cont.)

4. Zoning Commission
 - zoning regulations and map (including flood plain features); Site Plan and Special Exception approval; Coastal Site Plan reviews.
 - a. Zoning Enforcement Officer
 - inspections, permits and enforcement, including flood plain management elements.
 - b. Town Engineer
 - flood plain management consultation, certification.
5. Zoning Board of Appeals
 - requests for variances, including flood plain management features; Special Exception approval; Coastal Site Plan reviews.
6. Inland Wetlands Commission
 - regulations and permits for activities in inland wetlands and water courses.
7. Building Department
 - State Building Code administration, including features of flood plain management.
8. Conservation Commission
 - study, planning and education re. the natural environment.
9. Office of Civil Preparedness
 - disaster planning and assistance.
10. Shellfish Commission
 - planning, testing and administration of shellfish grounds and taking.
11. Water Pollution Control Authority
 - administration of Sewer Avoidance Program; administrative requirements for community systems.
12. Waterfront Commission
 - planning and administration for boat docks, anchorage, launching and facilities; Town Dock.
13. River Traffic Control
 - policing of navigation rules; emergency assistance.
14. Park and Recreation Department
 - planning and administration of Town Beach and other recreation facilities; recreation program.
15. Assessor
 - property assessment, including open space ("PA 490").

2. Consideration of opportunity for use and enjoyment of the shoreline is to be a part of Coastal Site Plan Reviews, some of which are conducted simultaneously with Site Plan and Special Exception actions by the Zoning Commission.

Town Beach:

1. The proposal to acquire additional beach involves planning, site investigation, negotiation, appropriations and purchase as well as later development. Typically the central agency would be the Board of Selectmen assisted by other agencies.

Recreation Boating:

1. North Cove anchorage will involve action by the Army Corps of Engineers. The Selectmen and Waterfront Commission would address improvements at the Town Dock as well as property and improvements for other access locations in the Cove and at other locations.
2. Developed shorefront elements are private investment projects guided by zoning and involving State and Federal Permits.
3. Improvement and continuation of the State launching ramp at the I-95 bridge requires attention by the State Department of Transportation and DEP.
4. Provision for commercial fishing would occur after consultation with the industry to determine its needs and methods of operation.
5. Water pollution control for boats would be under the jurisdiction of Town public health officials.

Shellfish:

1. Leadership for shellfishing is undertaken by the Shellfish Commission and Town public health officials.

Developed Shorefront:

1. Applicable zoning is to be reviewed and revised as appropriate by the Zoning Commission. Limits for bulkhead and pierhead development is an engineering assignment to be carried out initially by the Town (Selectmen/Waterfront Commission/Planning Commission) with participation by the Corps of Engineers, Coast Guard and DEP.

Wetlands:

1. Ownership proposals involve either public or private funding, and negotiation and purchase. Tidal marshes are already designated as "open space" upon the Plan of Development. Resubdivision of old layouts would be studied by the Planning Commission.
2. Recommendations concerning commercial development, erosion and sedimentation control and tidal wetlands protection are to be addressed by the Zoning Commission.
3. The Inland Wetlands Commission would consider an additional "regulated area" adjacent to inland wetlands and water courses.

Sewer Avoidance/Water Quality:

1. Basic responsibility for the Sewer Avoidance Program rests with the Water Pollution Control Authority, assisted by Town public health officials, DEP and funding from EPA.

2. Protection of water quality would also be addressed by the Zoning Commission in connection with Site Plan administration.

Coastal Hazard Areas:

1. The mechanisms for flood plain management and disaster response are already in place.
2. Further identification of velocity hazard areas would be made by the Zoning Commission and Planning Commission.

Beach Erosion:

1. The beach erosion recommendations will best be undertaken initially at the State level (DEP) and may involve participation by the Corps of Engineers.

South Cove:

1. The Special Study of South Cove will involve a series of State and Federal Agencies, and the Town. The initial agenda and program will best be undertaken by the Planning Commission with financial and technical assistance from DEP (CAM).

C I T I Z E N P A R T I C I P A T I O N

Understanding and support among citizens and property owners will be the basis for an effective Municipal Coastal Program. The Program serves as a guide for wise use, development and preservation of the Coastal Boundary Area by people and their public agencies and private organizations. The Program must also reflect local needs and desires as people perceive them.

The process of preparing the Municipal Coastal Program involves learning and evaluation as well as the expression of personal views. Coastal Resources — 12 of them — have been identified and considered as a coastal environmental system. The Connecticut General Assembly set forth policies for looking at resources in the Connecticut Coastal Area, including the Coastal Boundary Area of Old Saybrook. Where needs and desires are best known — the locality — Coastal Area policies have been applied to fit local circumstances.

The Old Saybrook Planning Commission is the lead agency for preparation of the Municipal Coastal Program. Early in the process, the Coastal Program Committee of interested and knowledgeable citizens was assembled and provided with basic data. That Committee established its own agenda and work program and conducted field trips. After several months of deliberation, Committee reports were made by subject matter; the substance of Committee findings has been absorbed in this document.

As local coastal issues, goals and policies were refined by the Planning Commission, many meetings were held, some attended by interested citizens; some consisted of technical conferences with Town agencies and State personnel. There

have been newspaper reports of interim findings and ideas, and members of the Commission or Commission representatives have attended meetings with community associations covering neighborhoods in the Coastal Boundary Area.

The Municipal Coastal Program may be adopted by the Planning Commission after due notice and at least one public hearing as required by law. Copies of the Program are to be available for public inspection in convenient locations, such as the Town Hall and Acton Public Library.

Zoning proposals of the Program are to be considered by the Zoning Commission and may be adopted only after due notice and public hearing as required by law.

Continued Participation

Planning for the Coastal Boundary area is a continuing process. Further research and new information will be received, and goals, policies and specific proposals may be refined, updated and improved.

In that process, the Old Saybrook Planning Commission has a continuing responsibility to assure public participation (learning, evaluation and expression of personal views) so as to maintain a continuing foundation for the Program. The Coastal Program Committee may be regenerated for overall or specific project review. Continuing contact and dialogue with private and public interest groups (the community associations, boating groups and marina interests, shellfish participants, conservation organizations and business/industry representatives) will be essential. The continuing process of planning, aided by the Municipal Coastal

Program documents, maps and color slide inventory, is intended to heighten and maintain public awareness of the resources and opportunities in the Coastal Boundary Area.

T E C H N I C A L S U P P L E M E N T S

#1: MODIFICATION OF PLAN OF DEVELOPMENT

#2: ZONING PROPOSAL

#3: STATE COASTAL POLICIES

The following are proposed amendments to the "Plan of Development for the Town of Old Saybrook, Connecticut" as adopted by the Old Saybrook Planning Commission on April 7, 1971, effective April 23, 1971.

PART ONE: POLICY AND GOALS

- A. Delete Par. 1.3 Shorefront, including Par. 1.3.1 Goals, and substitute the following in place thereof:

1.3 Coastal Area: The attractiveness of Old Saybrook and the enjoyment people find in the Town have a strong basis in the coastal resources of Long Island Sound and the Connecticut River. The beaches, vistas, tidal marshes, boating opportunities, fishing and shellfish areas are special assets. There are, however, potential hazards from coastal storms and flooding. A Coastal Boundary is mapped within the Town, and in general, consists of a continuous line delineated on the landward extent of the 100-year frequency coastal flood zone, or 1,000 feet from the landward extent of mean high water and State designated tidal wetlands, whichever is farthest inland. The Coastal Boundary Area of Old Saybrook consists of all territory seaward of the Coastal Boundary. The man-made environment uses the Coastal Boundary Area and can threaten coastal resources through thoughtless exploitation. These resources are of great present and potential economic, recreational, cultural and aesthetic value.

1.3.1 Goal: to make wise use of coastal resources by —

- a. insuring that the development, preservation or use of land and water resources of the Coastal Boundary Area proceed in a manner consistent with the capability of the land and water resources to support development, preservation and use without significantly disrupting either the natural environment or sound growth; and
- b. giving high priority and preference to uses and facilities which are dependent upon proximity to the water.

- B. Under Par. 1.6 Quality Development and Standards and Par. 1.6.1 Goals, delete from item "e" the words "and sanitary sewer".

C. Add a new Par. 1.9 Sewage Disposal as follows:

1.9 Sewage Disposal: In concert with studies and plans for the Connecticut River Estuary Region, Old Saybrook's choice to meet sewage disposal requirements is "sewer avoidance". This means that within the Town there will be no major central municipal sewer system (laterals, interceptors and trunk lines leading to a treatment plant and outfall). Under the alternative to a central plant, sewage will primarily be treated and disposed of on each property by individual on-site system. There can be local area systems serving groups of dwellings and multiple occupancies; community systems are a necessity in some densely built-up areas where existing disposal problems cannot be solved on an individual basis.

Individual disposal systems discharge to the land and are highly dependent for successful operation (proper treatment of sewage as well as disposal) upon the soils resources available and system design, proper operation and maintenance. Generally, soils south of the Connecticut Turnpike are highly permeable, rapidly accepting sewage effluent, but some of these areas are excessively well drained and may not assure treatment before effluent reaches groundwater, wetlands, marshes and tidal inlets. Conditions north of the Turnpike are highly variable; there are significant areas of rock outcrop and clay soil constraints which may not support building, or enable building only with large lots. Individual or group systems, then, are to be designed to fit the particular circumstances of the site. These systems also require a central facility for disposal and treatment of wastes (septage) cleaned out periodically from septic tanks.

A central sewer system could enable major urbanization in Old Saybrook if significant State and regional growth were to occur. Only the size of a treatment plant and the capability of the outfall are limiting factors. The sewer avoidance choice means that intensive concentration of development cannot be supported. Small area community systems, however, will enable site use alternatives different from an individual building on its own lot. Especially useful community sewage disposal sites can be identified in advance and preserved from building or excavation.

Sewer avoidance planning has identified existing sewage disposal problems in built-up areas near the shore. There are a few septic field sites available for community systems, which would be sponsored by the Town and financed by the users. Some of these developed shore areas contain seasonal dwellings, for which year-round occupancy would be made feasible by a community system.

Goals: 1. implementation of a sewer avoidance program as the method of meeting sewage disposal requirements of the Town under this Plan.

2. as part of the program, assured conduct of the administrative mechanisms to support sewer avoidance, including system design review, continuing tracing of pollution sources, system maintenance, septage disposal and proper administrative arrangements for group systems.
3. early acquisition or protection of sites for community systems necessary for existing septic problem areas.

PART TWO: TOWNWIDE DEVELOPMENT PATTERN

D. Under Par. 2.3 Utility Systems, delete the following:

1. In Par. 2.3, the words " , sanitary sewer".
2. "Plan of Development for the Town of Old Saybrook, Connecticut: PLAN MAP B-2, Sanitary Sewers" dated November, 1970; and
3. subparagraph b. B-2 Sanitary Sewers under Par. 2.3.1 Systems.

PART THREE: ADDITIONAL STANDARDS

E. Delete Par. 3.5 Sewerage and substitute the following in place thereof:

- 3.5 Sewerage: In general, one acre of land is needed to support a 1-family dwelling having an on-site sewage disposal system and a reserve area. A density of not more than two (2) single family dwellings per acre, or not more than four (4) two-bedroom or eight (8) one-bedroom multiple dwelling units per acre, can be accommodated under strict design and construction controls and on ideal soil conditions and if central water supply is available. Private on-site systems are to be designed and maintained in accordance with the Connecticut State Sanitary Code standards of the Department of Environmental Protection and local ordinances. Local area central sewerage systems and treatment plants, subject to public control, can be established if in conformity with State and Town laws. In general, soils categories B-2, C-1, C-2, D-1 and D-2 occurring in Old Saybrook are delineated on * "General Soil Map" of the U. S. Department of Agriculture, Soil Conservation Service, dated March 1966,

are unsatisfactory or present major difficulties for permanent on-site sewage disposal systems except at the low density of occupancy specified above; categories E, F and H, which are wetlands, are also unsatisfactory and are not intended for building development; categories A and B-1 are generally satisfactory under the limitations specified above.

* See also "Soil Survey of Middlesex County, Connecticut", published by the National Cooperative Soil Survey, issued February, 1979, for more detailed soils mapping and evaluations.

PART FOUR: DEVELOPMENT PROGRAMS

F. Delete Development Program #4.12: Sanitary Sewerage Program.

The following are recommendations for review and revision of the Zoning Regulations of the Town of Old Saybrook, Connecticut in support of the Municipal Coastal Program:

- A. Saybrook Point (Area G): The Special Study of the eastern end of Saybrook Point being conducted simultaneously with preparation of this Municipal Coastal Program is expected to recommend land uses, standards for area, location and bulk and criteria for overall site design. The existing zoning districts and standards (Residence A, Residence AA-2, Shopping Center Business B-2 and Marine Commercial MC Districts) are expected to be insufficient to carry out the recommendations of the Special Study and should have a comprehensive review and revision when the results of the Special Study are known and accepted.
- B. MC and MCL Districts: The Marine Commercial MC and MCL Districts at South Cove (Area H), Riverfront and Interior (Areas J-1 and J-2) and Ferry Point (Area J-3) should be reviewed and revised as appropriate with regard to the goals and policy for people to the shore, recreation boating, developed shorefront and tidal wetlands. The review should include no less than —
1. preference for and encouragement of uses which are boating related (including fishery where appropriate) and which are otherwise water dependent;
 2. suitability of the District boundaries with regard to usable area and sufficiency of land support for water-dependent uses;
 3. conflicts with viable tidal wetlands, such as at the following locations:
 - a. along Hydes Point Creek east of Fourth Street;
 - b. the Riverfront and Riverfront-interior (J-1 and J-2) between I-95 and the Railroad;
 - c. near the discontinued sanitary landfill, north of the abandoned railroad embankment; and
 - d. at the northwest corner of North Cove, south of the abandoned railroad embankment and east of Coulter Street;
 4. site plan review standards which address —
 - a. pier and bulkhead development, and protection of navigation channel access;

- b. coastal flood hazard potential;
- c. protection of tidal wetlands, where to be conserved; and
- d. adequate provision of sanitary facilities.

This review may be cause for further consideration of the height, setback and coverage limitations imposed under Connecticut River Gateway "Conservation Zone" standards where applicable to "developed shorefront" locations.

- C. Wetlands and Water Quality: Under the goals and policies concerning wetlands and sewer avoidance/water quality, consideration should be given to extending the site improvement and administrative standards to include the following:
- 1. in connection with a "statement of use" (Par. 51.2.1) for commercial or industrial development, provide for disclosure of toxic or other hazardous materials, including petroleum products, to be stored or used on the premises, and under the site plan standards, provide for plans for management of such materials in a manner that protects ground and surface water quality;
 - 2. in connection with site plan standards (Section 51), provide for review of drainage to include management of parking lot drainage runoff so as to mitigate potential degradation of surface water and wetlands;
 - 3. extend the provisions for erosion and sedimentation measures to include all construction, including dwellings, within 100 feet of tidal wetlands and related inlets; and
 - 4. extend the 50 foot building setback requirement (Par. 7.4.10) to include "outside storage areas".

C O N N E C T I C U T

C O A S T A L M A N A G E M E N T P R O G R A M

EXCERPTS

Chapter 444 of Connecticut General Statutes
(Public Acts 78-152 and 79-535)

page 1:	LEGISLATIVE FINDINGS
page 3:	LEGISLATIVE GOALS AND POLICIES
page 3:	(a) General Goals and Policies
page 6:	(b) Additional policies for Federal, State and Municipal agencies
page 6:	1. concerning development, facilities and uses
page 8:	2. concerning coastal land and water resources
page 12:	(c) Additional policies for Federal and State agencies
page 12:	1. concerning development and uses
page 14:	2. concerning coastal land and water resources
page 16:	SELECTED DEFINITIONS

LEGISLATIVE FINDINGS

The General Assembly finds that:

1. The waters of Long Island Sound and its coastal resources, including tidal rivers, streams and creeks, wetlands and marshes, intertidal mudflats, beaches and dunes, bluffs and headlands, islands, rocky shorefronts, and adjacent shorelands form an integrated natural estuarine ecosystem which is both unique and fragile;
2. Development of Connecticut's coastal area has been extensive and has had a significant impact on Long Island Sound and its coastal resources;
3. The coastal area represents an asset of great present and potential value to the economic well-being of the state, and there is a state interest in the effective management, beneficial use, protection and development of the coastal area;
4. The waterfront of Connecticut's major urban ports is underutilized and many existing urban waterfront uses are not directly dependent on proximity to coastal waters;
5. The coastal area is rich in a variety of natural, economic, recreational, cultural and aesthetic resources, but the full realization of their value can be achieved only by encouraging further development in suitable areas and by protecting those areas unsuited to development;

6. The key to improved public management of Connecticut's coastal area is coordination at all levels of government and consideration by municipalities of the impact of development on both coastal resources and future water-dependent opportunities when preparing plans and regulations and reviewing municipal and private development proposals; and
7. Unplanned population growth and economic development in the coastal area have caused the loss of living marine resources, wildlife and nutrient-rich areas, and have endangered other vital ecological systems and scarce resources.

(P.A. 78-152, S. 2, 11; P.A. 79-535, S. 1, 25.)

LEGISLATIVE GOALS AND POLICIES (a)

The following GENERAL GOALS and policies are established by this Chapter:

1. To insure that the development, preservation or use of the land and water resources of the coastal area proceeds in a manner consistent with the capability of the land and water resources to support development, preservation or use without significantly disrupting either the natural environment or sound economic growth;
2. To preserve and enhance coastal resources in accordance with the policies established by chapters 439, 440, 447, 473, 474, 474a and 477;
3. To give high priority and preference to uses and facilities which are dependent upon proximity to the water or the shorelands immediately adjacent to marine and tidal waters;
4. To resolve conflicts between competing uses on the shorelands adjacent to marine and tidal waters by giving preference to uses that minimize adverse impacts on natural coastal resources while providing long term and stable economic benefits;
5. To consider in the planning process the potential impact of coastal flooding and erosion patterns on coastal development so as to minimize damage to and destruction of life and property and reduce the necessity of public expenditure to protect future development from such hazards;

6. To encourage public access to the waters of Long Island Sound by expansion, development and effective utilization of state-owned recreational facilities within the coastal area that are consistent with sound resource conservation procedures and constitutionally protected rights of private property owners;
7. To conduct, sponsor and assist research in coastal matters to improve the data base upon which coastal land and water use decisions are made;
8. To coordinate the activities of public agencies to insure that state expenditures enhance development while affording maximum protection to natural coastal resources and processes in a manner consistent with the state plan for conservation and development adopted pursuant to part I of chapter 297;
9. To coordinate planning and regulatory activities of public agencies at all levels of government to insure maximum protection of coastal resources while minimizing conflicts and disruption of economic development; and
10. To insure that the state and the coastal municipalities provide adequate planning for facilities and resources which are in the national interest as defined in section 22a-93 and to insure that any restrictions or exclusions of such facilities or uses are reasonable. Reasonable grounds for the restriction or exclusion of a facility or use in the national interest shall include a finding that such a facility or use:
 - a. may reasonably be sited outside the coastal boundary;
 - b. fails to meet any applicable federal and state environmental, health or safety standard; or

c. unreasonably restricts physical or visual access to coastal waters.

This policy does not exempt any nonfederal facility in use from any applicable state or local regulatory or permit program nor does it exempt any federal facility or use from the federal consistency requirements of Section 307 of the Federal Coastal Zone Management Act.

LEGISLATIVE GOALS AND POLICIES (b)

The following additional policies are established for Federal, State and MUNICIPAL AGENCIES in carrying out their responsibilities under this Chapter:

1. POLICIES CONCERNING DEVELOPMENT, FACILITIES AND USES WITHIN THE COASTAL BOUNDARY ARE —
 - A. to manage uses in the coastal boundary through existing municipal planning, zoning and other local regulatory authorities and through existing state structures, dredging, wetlands, and other state siting and regulatory authorities, giving highest priority and preference to water-dependent uses and facilities in shorefront areas;
 - B. to locate and phase sewer and water lines so as to encourage concentrated development in areas which are suitable for development; and to disapprove extension of sewer and water services into developed and undeveloped beaches, barrier beaches and tidal wetlands except that, when necessary to abate existing sources of pollution, sewers that will accommodate existing uses with limited excess capacity may be used;
 - C. to promote, through existing state and local planning, development, promotional and regulatory authorities, the development, reuse or redevelopment of existing urban and commercial fishing ports giving highest priority and preference to water dependent uses, including but not limited to commercial and recreational fishing and boating uses; to disallow uses which unreasonably congest navigation channels, or unreasonably preclude boating support facilities elsewhere in a port or harbor; and to minimize the risk of oil and chemical spills at port facilities;

- D. to require that structures in tidal wetlands and coastal waters be designed, constructed and maintained to minimize adverse impacts on coastal resources, circulation and sedimentation patterns, water quality, and flooding and erosion, to reduce to the maximum extent practicable the use of fill, and to reduce conflicts with the riparian rights of adjacent landowners;
- E. to disallow the siting within the coastal boundary of new tank farms and other new fuel and chemical storage facilities which can reasonably be located inland and to require any new storage tanks which must be located within the coastal boundary to abut existing storage tanks or to be located in urban industrial areas and to be adequately protected against floods and spills;
- F. to make use of rehabilitation, upgrading and improvement of existing transportation facilities as the primary means of meeting transportation needs in the coastal area;
- G. to encourage increased recreational boating use of coastal waters, where feasible, by —
 - a. providing additional berthing space in existing harbors,
 - b. limiting non-water-dependent land uses that preclude boating support facilities,
 - c. increasing state-owned launching facilities; and
 - d. providing for new boating facilities in natural harbors, new protected water areas and in areas dredged from dry land;

- H. to protect coastal resources by requiring, where feasible, that such boating uses and facilities —
 - a. minimize disruption or degradation of natural coastal resources,
 - b. utilize existing altered, developed or redevelopment areas,
 - c. are located to assure optimal distribution of state-owned facilities to the statewide boating public, and
 - d. utilize ramps and dry storage rather than slips in environmentally sensitive areas;
- I. to protect and where feasible, upgrade facilities serving the commercial fishing and recreational boating industries; to maintain existing authorized commercial fishing and recreational boating harbor space unless the demand for these facilities no longer exists or adequate space has been provided; to design and locate, where feasible, proposed recreational boating facilities in a manner which does not interfere with the needs of the commercial fishing industry; and
- J. to require reasonable mitigation measures where development would adversely impact historical, archeological, or paleontological resources that have been designated by the state historic preservation officer.

2. POLICIES CONCERNING COASTAL LAND AND WATER RESOURCES WITHIN THE COASTAL BOUNDARY ARE —

- A. to manage coastal bluffs and escarpments so as to preserve their slope and toe; to discourage uses which do not permit continued natural rates

of erosion and to disapprove uses that accelerate slope erosion and alter essential patterns and supply of sediments to the littoral transport system;

- B. to manage rocky shorefronts so as to insure that development proceeds in a manner which does not irreparably reduce the capability of the system to support a healthy intertidal biological community; to provide feeding grounds and refuge for shorebirds and finfish, and to dissipate and absorb storm and wave energies;
- C. 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;
- D. 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; to encourage the restoration and enhancement of degraded intertidal flats; to allow coastal uses that minimize change in the natural current flows, depth, slope, sedimentation, and nutrient storage functions and to disallow uses that substantially accelerate erosion or lead to significant despoilation of tidal flats;

- E. to preserve tidal wetlands and to prevent the despoilation and destruction thereof in order to maintain their vital natural functions; to encourage the rehabilitation and restoration of degraded tidal wetlands and where feasible and environmentally acceptable, to encourage the creation of wetlands for the purposes of shellfish and finfish management, habitat creation and dredge soil disposal;
- F. to manage coastal hazard areas so as to insure that development proceeds in such a manner that hazards to life and property are minimized and to promote nonstructural solutions to flood and erosion problems except in those instances where structural alternatives prove unavoidable and necessary to protect existing inhabited structures, infrastructural facilities or water dependent uses;
- G. to promote, through existing state and local planning, development, promotional and regulatory programs, the use of existing developed shore-front areas for marine-related uses, including but not limited to, commercial and recreational fishing, boating and other water-dependent commercial, industrial and recreational uses;
- H. to manage undeveloped islands in order to promote their use as critical habitats for those bird, plant and animal species which are indigenous to such islands or which are increasingly rare on the mainland; to maintain the value of undeveloped islands as a major source of recreational open space; and to disallow uses which will have significant adverse impacts on islands or their resource components;

- I. to regulate shoreland use and development in a manner which minimizes adverse impacts upon adjacent coastal systems and resources; and
- J. to maintain the natural relationship between eroding and depositional coastal landforms and to minimize the adverse impacts of erosion and sedimentation on coastal land uses through the promotion of nonstructural mitigation measures. Structural solutions are permissible when necessary and unavoidable for the protection of infrastructural facilities, water-dependent uses, or existing inhabited structures, 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.

LEGISLATIVE GOALS AND POLICIES (c)

The following additional policies are also established for FEDERAL and STATE

Agencies in carrying out their responsibilities under this Chapter:

1. POLICIES CONCERNING DEVELOPMENT AND USES WITHIN THE COASTAL BOUNDARY ARE —
 - A. to minimize the risk of spillage of petroleum products and hazardous substances, to provide effective containment and cleanup facilities for accidental spills and to disallow offshore oil receiving systems that have the potential to cause catastrophic oil spills in the Long Island Sound estuary;
 - B. to disallow any filling of tidal wetlands and nearshore, offshore and intertidal waters for the purpose of creating new land from existing wetlands and coastal waters which would otherwise be undevelopable, unless it is found that the adverse impacts on coastal resources are minimal;
 - C. to initiate in cooperation with the federal government and the continuing legislative committee on state planning and development a long-range planning program for the continued maintenance and enhancement of federally-maintained navigation facilities in order to effectively and efficiently plan and provide for environmentally sound dredging and disposal of dredged materials; to encourage, through the state permitting program for dredging activities, the maintenance and enhancement of existing federally-maintained navigation channels, basins and anchorages and to discourage the dredging of new federally-maintained navigation channels, basins and anchorages;

- D. to reduce the need for future dredging by requiring that new or expanded navigation channels, basins and anchorages take advantage of existing or authorized water depths, circulation and siltation patterns and the best available technologies for reducing controllable sedimentation;
- E. to disallow new dredging in tidal wetlands except where no feasible alternative exists and where adverse impacts to coastal resources are minimal;
- F. to require that new or improved shoreline rail corridors be designed and constructed so as —
 - a. to prevent tidal and circulation restrictions and, when practicable, to eliminate any such existing restrictions;
 - b. to improve or have a negligible adverse effect on coastal access and recreation; and
 - c. to enhance or not unreasonably impair the visual quality of the shoreline;
- G. to require that coastal highways and highway improvements including bridges, be designed and constructed so as to minimize adverse impacts on coastal resources; to require that coastal highway and highway improvements give full consideration to mass transportation alternatives and to require that coastal highways and highway improvements where possible enhance, but in no case decrease coastal access and recreational opportunities;

- H. to disallow the construction of major new airports and to discourage the substantial expansion of existing airports within the coastal boundary; to require that any expansion or improvement of existing airports minimize adverse impacts on coastal resources, recreation or access;
- I. to manage the state's fisheries in order to promote the economic benefits of commercial and recreational fishing, enhance recreational fishing opportunities, optimize the yield of all species, prevent the depletion or extinction of indigenous species, maintain and enhance the productivity of natural estuarine resources and preserve health fisheries resources for future generations;
- J. to make effective use of state-owned coastal recreational facilities in order to expand coastal recreational opportunities including the development or redevelopment of existing state-owned facilities where feasible; and
- K. to require as a condition in permitting new coastal structures, including but not limited to, groins, jetties or breakwaters, that access to, or along, the public beach below mean high water must not be unreasonably impaired by such structures and to encourage the removal of illegal structures below mean high water which unreasonably obstruct passage along the public beach.

2. POLICIES CONCERNING COASTAL LAND AND OTHER RESOURCES WITHIN THE COASTAL BOUNDARY ARE --

- A. 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; to protect, enhance and allow natural restoration of eelgrass flats except in special limited cases, notably shellfish management, where the benefits accrued through alteration of the flat may outweigh the long-term benefits to marine biota, waterfowl, and commercial and recreational finfisheries; and

- B. to maintain, enhance, or, where feasible, restore natural patterns of water circulation and fresh and saltwater exchange in the placement of culverts, tide gates or other drainage or flood control structures.

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In addition to the policies in this Section, the policies of the State Plan of Conservation and Development adopted pursuant to Part I of Chapter 297 shall be applied to the area within the coastal boundary in accordance with the requirements of Section 16a-31.

DEFINITIONS (selected)

2. Municipality means any town listed in subsection (a) of section 22a-94, the city of Groton, the borough of Stonington, the borough of Groton Long Point, the borough of Fenwich and the borough of Woodmont, but shall not include any special district.
3. Coastal Area means the land and water within the westerly, southerly and easterly limits of the State's jurisdiction in Long Island Sound, and the whole of specified Town such as Old Saybrook; see Sec. 22a-94(a)7.
4. Coastal Boundary means as mapped, but generally 1,000' landward from a) 100 year frequency coastal flood zone, b) mean high water or c) inland boundary of tidal wetlands (whichever is farthest inland) plus the seaward side; see Sec. 22a-94(b)7.
6. Public Beach means that portion of the shoreline held in public fee ownership by the state or that portion of the shoreline below the mean high tide elevation that is held in public trust by the state.
14. Facilities and Resources which are in the National Interest means:
 - A. adequate protection of tidal wetlands and related estuarine resources;
 - B. restoration and enhancement of Connecticut's shellfish industry;
 - C. restoration, preservation and enhancement of the state's recreational and commercial fisheries, including anadromous species;
 - D. water pollution control measures and facilities consistent with the requirements of the Federal Clean Water Act, as amended;

- E. air pollution control measures and facilities consistent with the requirements of the Federal Clean Water Act, as amended;
 - F. continued operations of existing federally-funded dredged and maintained navigation channels and basins;
 - G. energy facilities serving statewide and interstate markets, including electric generating facilities and facilities for storage, receiving or processing petroleum products and other fuels;
 - H. improvements to the existing interstate rail, highway and water-borne transportation system;
 - I. provision of adequate state or federally-owned marine-related recreational facilities, including natural areas and wildlife sanctuaries; and
 - J. essential maintenance and improvement of existing water-dependent military, navigational, resource management and research facilities.
15. Adverse Impacts on Coastal Resources include but are not limited to:
- A. degrading water quality through the significant introduction into either coastal waters or groundwater supplies of suspended solids, nutrients, toxics, heavy metals or pathogens, or through the significant alteration of temperatures, PH, dissolved oxygen or salinity;
 - B. degrading existing circulation patterns of coastal waters through the significant patterns of tidal exchange or flushing rates, freshwater input, or existing basin characteristics and channel contours;

- C. degrading natural erosion patterns through the significant alteration of littoral transport of sediments in terms of deposition or source reduction;
 - D. degrading natural or existing drainage patterns through the significant alteration of groundwater flow and recharge and volume of runoff;
 - E. increasing the hazard of coastal flooding through significant alteration of shoreline configurations or bathymetry, particularly within high velocity flood zones;
 - F. degrading visual quality through significant alteration of the natural features of vistas and view points;
 - G. degrading or destroying essential wildlife, finfish or shellfish habitat through significant alteration of the composition, migration patterns, distribution, breeding or other population characteristics of the natural species or significant alteration of the natural components of the habitat; and
 - H. degrading tidal wetlands, beaches and dunes, rocky shorefronts, and bluffs and escarpments through significant alteration of their natural characteristics or function.
16. Water Dependent Uses means those uses and facilities which require direct access to, or location in, marine or tidal waters and which therefore cannot be located inland, including but not limited to: Marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing

plants, waterfront dock and port facilities, shipyards and boat building facilities, water-based recreational uses, navigation aides, basins and channels, industrial uses dependent upon waterborne transportation or requiring large volumes of cooling or process water which cannot reasonably be located or operated at an inland site and uses which provide general public access to marine or tidal waters.

(P.A. 78-152, S. 4, 11; P.A. 79-535, S. 3, 25.)