

TOWN OF ESSEX, CONNECTICUT

HARBOR MANAGEMENT PLAN

PREPARED BY

HARBOR MANAGEMENT COMMISSION

ESSEX, CONNECTICUT 06426

November 3, 1987

As Amended Through July 9, 1990

And

Adopted September 18, 1990

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This Document was financed in part through a Grant from the Coastal Resource Management Division of the Connecticut Department of Environmental Protection.

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INTRODUCTION

Effective October 1, 1984, the State of Connecticut enacted pioneering legislation which authorizes municipalities having navigable waters within their boundaries to establish harbor management plans. The Act was drafted in response to increased pressures and competing demands for harbor use and development occurring across the state and the region. Although problems and opportunities tend to be harbor-specific, common issues may include overcrowding, encroachments into federal navigation projects (e.g., channels, anchorages), transient boat and boater facilities, preservation of coastal resources and water dependent facilities, and a need for more local participation in the regulation of harbor uses.

Conceptually, a harbor management plan may be understood as a "wet side" application of more traditional land use planning theories and techniques. Such a plan becomes, in effect, a map for the use and management of harbor lands and water under its jurisdiction. In Connecticut, the need for "wet side" management became apparent in several municipalities developing municipal coastal programs under the auspices of the State Coastal Management Program. While municipal coastal programs identify harbor issues and put forth recommendations, their primary focus is "land side", and regulatory control mechanisms such as zoning generally stop at the mean high water mark, traditionally the limit of local authority and jurisdiction.

This Harbor Management Plan for the Town of Essex is intended to be adopted in accordance with the provisions of the Connecticut Harbor Management Act (Sections 22a-113k through 22a-113t of the Connecticut General Statutes). Once approved by the Department of Environmental Protection (DEP) and Department of Transportation (DOT) and adopted by the legislative body of a municipality, a harbor management plan provides a comprehensive and coordinated approach to harbor management at the municipal level. Further, by developing such a voluntary harbor management plan, a municipality is assured that local goals and objectives are incorporated into the federal and state permit decision-making process.

ESSEX HARBOR MANAGEMENT PLAN
TOWN OF ESSEX, CONNECTICUT

I. EXISTING CONDITIONS¹

A. Essex Coastal Area

The coastal area of the Town of Essex is comprised of four main areas: (1) open water, (2) fringing estuarine wetlands, (3) river islands and (4) coastal uplands.

The area under the aegis of Essex Harbor Management Commission is shown on Figure 1, in accordance with the provisions of the Connecticut Harbor Management Act, dated October 1, 1984 (Sections 22a-113k through 22a-113t of Chapter 444a of the Connecticut General Statutes).

1. Open Water

The open water consists of the Connecticut River and shallow coves (North, South and Middle Coves). The river and its coves are continually changing. Essex's portion of the Connecticut River supports boats as large as charter size, with the U.S. Army Corps of Engineers maintaining the channel. The cove depths can only accommodate small craft. The channel coming from the north, follows the east side of the river to Brockway Island, after which it shifts to the Essex side for a total distance of approximately 2.5 miles, north and south.

The creation of the above-described channel by the Army Corps of Engineers modified the characteristics of the Connecticut River in Essex. The federally designated special anchorages and the Essex Inner Channel (the "old channel" of the Connecticut River) are now dependent upon periodic maintenance dredging to remain usable. Historically, the Army Corps of Engineers has accepted the obligation to perform this dredging and has done so. The last maintenance dredging was performed in 1973-74. The anchorage has since shoaled from the control depths of 8 and 10 feet to a general average of 5 to 7 feet.

¹ Excerpted in large measure from Coastal Area Management report of April 1983.

I. EXISTING CONDITIONS

A. Essex Coastal Area

1. Open Water (cont'd)

The North Cove area covers approximately 230 acres; Middle Cove, 30 acres; and South Cove, 135 acres. The coves receive tidal action and their salinity is comparable to the concentration in the main part of the River.

2. Fringing Estuarine Wetlands

Estuarine wetlands are found on an area known as the Great Meadow and on the island in Middle cove. Most of the Great Meadow (see fig. 2) is an area of approximately 200 acres that contain natural levees where sediment is deposited by over-bank flooding. It is one of a series of pendant bars in the river.

During extreme high tide, the Great Meadow is covered by submerged aquatic plants and low grasses, with patches of trees. However, with the slow but definite rise of the surrounding sea level, the trees have a limited future. Elevation of the Great Meadow is low and subject to frequent flooding.

3. River Islands

The river islands include Brockway, Thatchbed and Essex Island. The second area mentioned, Thatchbed Island, covers an area of approximately 20 acres and reflects the same pattern of wetlands as is found on the Great Meadow.

4. Coastal Uplands

The upland, along the coastal portion of Essex's waterfront (within the 1000 foot strip of CAM boundary lines), is intensely developed by commercial structures and private residences in Essex Village. The land to the north of the village has gently rolling topography with knolls reaching upwards of 250 feet; development is limited to residential uses.

I. EXISTING CONDITIONS (cont'd)

A. Essex Coastal Area

4. Coastal Upland (cont'd)

In Essex Village, marinas play a dominant role in the visual aspect of the shoreline, viewed both from water and land. Residential homes along the river have yards running directly to the coves and the river. Several have their own private docks.

B. Natural Resources

1. Coastal Waters

Surface water quality along Essex's shoreline is established (by Connecticut Department of Environmental Protection) as "SB":

"Suitable for bathing, other recreational purposes, agricultural uses, certain industrial processes and cooling, excellent fish and wildlife habitat and good aesthetic value."²

A discharge area approximately 2.5 miles downstream, #14 on map (see fig. 3) only emits 10,000-20,000 gallons per day, insufficient to affect Essex's water. It is not until one passes into the northern towns of Cromwell and Portland that the water quality diminishes. Further comparisons can be made by referring to Figure 3, taken from the "Connecticut River" published by the DEP.

2. Soils

Within the area are several salt and freshwater related soils which have severe limitations for most forms of development. Most of the Great Meadow is comprised of Westbrook (W.H.) mucky peat, and the land is level and subject to tidal flooding. Another flood plain soil in Essex is Rumney (RU) fine sandy loam, again a level, poorly drained soil found predominately on Thatchedbed Island and on the river side of the Great Meadow.

On the mainland immediately adjacent to the river, soils are predominately as follows, some of which also have severe limitations for development, as noted (see figures 4a, 4b):

² "The Connecticut River, Worth the Cost!", State of Connecticut, Department of Environmental Protection, Water Compliance Unit. 1982

I. EXISTING CONDITIONS (cont'd)

B. Natural Resources

2. Soils (cont'd)

The Canton Charlton Series: Coarse, loamy soil over sand well drained, ranging from non-stony to extremely stony - 3- 35% slope.

The Hinkley Series: Sandy-skeletal, mixed; excessively drained, common to stream terraces - 3-15% slope. (Limitation for development - moderate, except severe on steeper slopes.)

The Hollis Series: Loamy, mixed, mesic Lithin Dystrochrepts; somewhat excessively drained, common to hilltops, ridges and knolls - 3-45% slope. (Limitation for development - severe.)

The Agawam Series: Coarse, loamy soil over sandy or sandy-skeletal, mixed mesic Typic Dystrochrepts; well drained common to outwash plains and stream terraces - 0-8% slope. (Limitation for development - slight.)

The Windsor Series: Mixed mesic Typic Upidsaments, excessively drained, common to outwash plains and stream terraces - 0-8%. (Limitations for development - slight.)

The Paxton Series: Coarse-loamy, mixed, mesic Typic Fragiochrept common to broad hilltops, ridgetops and slopes; - 3-35% slope. (Limitation for development - severe.)

Together the soils produce a fundamental soil type: coarse-loamy, with non-stoney, well to extremely well drained, except for the wetland types found on the Great Meadow and islands.*

As can be seen from figures 4a, 4b, substantial areas are covered by soils listed as having moderate or severe limitations for development; specifically, on-site sewage disposal. Thus, the concern in this area for pollution, not only of ground water, but also ultimately by seepage into the adjacent shallow coves as well.

* U.S. Department of Agriculture, Soil Conservation Service, Middlesex County Soils, Number 41, 1987.

I. EXISTING CONDITIONS (cont'd)

B. Natural Resources3. Vegetations⁴

The Great Meadow is dominated by a series of north south vegetation belts whose distribution is related to frequency and duration of flooding, salinity and nature of the underlying soils. Narrow-leaved cattail dominates the wetter portion of the Great Meadow, and along the North Cove stands of tall reed occur within the cattail belt. Patches of wild rice along with bulrushes and a submerged aquatic zone form two additional vegetation belts along the river and cover shorelines. Two submerged species present are considered rare in the State of Connecticut.

Along the riverfront levee a tree-shrub belt and switch grass zone are also recognized. In the former there is a rapid trend toward increased woody plant invasion into former open space and stands of big blue stem, while false indigo is invading the switch grass belt.

In the past controlled burning took place as a measure of controlling growth and returning some nutrients to the soil. It is suggested that this practice should be reinstated for essentially the same reasons, which are as valid today as were 100 years ago.

4. Air Quality

While there are no specific monitoring data for the town's air quality, there is information for the state as a whole. At present there are no violations of sulphur dioxide and no problem with particulates noted for Essex. However, there have been alert levels in parts of the state for high levels of ozone, a pollutant related to the exhaust of automobiles.⁵

⁴ Town of Essex, Connecticut Coastal Area Management Report, April 1983, page 7.

⁵ State of Connecticut, Department of Environmental Protection, Water Compliance Unit.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

1. Shoreline Changes

Basic to the character of waterfront conditions is their dynamic nature. The prime example of this is Essex's Great Meadow. A characteristic of this pendant bar is its "mobility."

"Periodic deposition of river sediments, particularly during major spring floods, build them up so that they can be colonized by plants whose roots are tolerant to irregular flooding. In the flats behind the bar, a marsh develops. The cove is characterized by mud flats and tidal creeks and it is influenced by freshwater flowing in from tributaries and daily tides."⁶

In addition to the above action (caused by the river) is action due to a rising sea level (7" - 10" per century). However, deposition of sediment by the river counteracts and the land surface of the Great Meadow is two feet higher than it was when Essex was settled in 1635. The shallowness of the coves makes them more susceptible to eutrophication, which (according to studies by Dr. Niering and others) is accelerating due to development along the shoreline. The natural erosion and sedimentation process, along with development, affects the nature of land along the waterfront.

Intensive land use or disturbance of the natural plant cover near the water's edge can result in serious erosion and eutrophication. This can be especially severe on steep sloping terrain. This, of course, can be deduced from the soil type in this area which is listed as having serious limitations on steeper slopes (see fig. 4a and 4b).

2. Topography

Topography runs relatively flat on the islands. Grade changes going inland produce a gently rolling landscape, of predominantly 0%-15% slope (although there are some slopes in limited areas up to 45%) with many valleys draining into the river and one major tributary, the Falls River, which has been drastically changed due to the recent flooding in late spring of 1982.

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Great Meadow, A Connecticut River Estuarine Marsh, Essex, Ct, J. A. Gale and J. S. Perkins, Yale School of Forestry and Environmental Studies, February 1982.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

3. Wetlands

Wetlands along the waterfront are influenced by both fresh and saline water. The Great Meadow being a pendant river bar, is affected by saline water on the river side and fresh water on the cove side.

Therefore, vegetation conducive to either of these conditions exists on the Great Meadow and several islands. These areas are also subject to frequent flooding. In terms of the uniqueness of this type of wetland area (the combination of brackish and fresh water), there are 2000 acres of such wetlands in the Connecticut River and the Great Meadow comprises 190 of these, or approximately 10%.⁷

4. Shore Types

The Essex waterfront is made of several shore types: a pendant river bar, islands, river coast, brackish coves, a tributary river and small streams. In addition, there are some man-made types such as marinas and private docks and moorings. The coastline's appearance is both "naturalistic" and that of a small pleasure boat harbor.

5. Intertidal Mud Flats

Intertidal mud flats, a fundamental unit to the well being of a river's ecosystem, exist along the inner waters of the coves. They provide dwelling for invertebrate populations including organisms responsible for filtering the water.

6. Islands

The Essex coastal area includes several islands of substantial size: Brockway Island (estimated 25 acres); Thatchbed Island (estimated 20 acres); and a disconnected part of the Great Meadow on which a marina takes up most of the area (estimated 25 acres). In soil and topography they are all similar to the character of the Great Meadow. Thatchbed Island is undeveloped and partly owned by the Essex Land Conservation Trust.

⁷ "Environmental Concern Within the Coastal Zone, Essex, Ct", Page 3-4. Dr. William Niering, Professor of Botany, Ct College.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

7. Present Boating Facilities

At present Essex has four marinas and five yacht clubs. It has also a few public launching facilities and a fair number of private berths and moorings.

During the yachting season, roughly May through October, the marinas have these capacities:

Moorings: 81 (13 for boats under 25')

Slips/Berths: 302 (16 for boats under 25')

Eight additional slips along Pratt Street Bulkhead are controlled by brokers to display boats for sale. These are vital to that separate business.

During the same months, the yacht clubs have these:

Moorings: 98 (50 for boats under 25')

Slips/Berths: 31 (1 for boats under 25')

Dry Sail: 140 (140 for boats under 25')

In the main anchorage areas in the River the present and historical make-up is 50 percent commercial rental and support moorings and 50 percent private moorings of the total of approximately 180 moorings.

In 1989 a small increase in capacity was made by the multi-boat institutions. Essex Yacht Club and Brewer's Chandlery East added a total of 30 slips. This has used up all or most of the practical space available for use as slips in the Essex Harbor area. It would be possible with the cooperation of the Coast Guard (already favorable) and the Town of Lyme to create a Designated Anchorage on the east side of the River to be served by launch from the Essex side. However, to do so would call for more parking facilities in Essex itself where there are not enough now.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

7. Present Boating Facilities (cont'd)

Finally, there are numerous, though uncounted, residents and visitors who store their boats at home and trailer to the water (or carry on the roof) for each use. Many kinds of small craft are involved but the highest number are outboard launches 14 to 18 feet long.

Essex has nine designated public access points. Most of these are not in use. None is really adequate for one reason or another. Some have silted in. The workable set ups like the one at the foot of Main Street, lack parking facilities.

Winter storage is another problem, not quite as acute, as yet but heading for that status. Of course it is possible to store boats of trailerable dimensions in garages and backyards. Many are so stored.

Dry storage is obtainable at several marinas and yacht clubs. These have some additional unused capacity.

With the introduction of devices such as "bubblers", wet storage has become practical and is growing for winter use of many summertime slips in the marinas and yacht clubs. At present there is sufficient capacity.

There are obviously other capacities to be considered in evaluating a harbor. Parking would be in this section but is covered in several others. Lifts, chandleries and fuel docks are also important.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

8. Harbor Use and Administration

Essex is a yachting harbor. The waters are used for recreation and for the support of recreational activities. A wide variety of recreational craft, both sail and power, call Essex home. The historical pattern has been that these craft range from ten to roughly fifty feet in size. Waterborne transportation is not a usage of the Essex waterfront. There are no commercial fishermen based in Essex. The lack of commercial activity may be laid directly to the fact that Essex is at least an hour further from any fishing grounds than Old Saybrook, six miles down river. The recreational emphasis of water usage has determined what facilities exist and how they are utilized.

A key concern of harbor management in Essex is the allocation of space in the anchorages. Historically, the anchorage south of the South Fairway has been used for recreational craft and has included a mixture of private and commercial rental moorings. The mooring pattern has been determined empirically as a "best fit" as described below. Smaller boats, which can use the shallow water near Thatchbed Island have been placed inshore. Larger boats have been placed further out in the river where the water is deeper.

The limited size of the anchorages in front of the village and the problems mooring and anchoring in reversing currents and diurnal winds have led to the evolution of a unique pattern and administration of moorings in Essex. A geometric grid of moorings is wasteful and has never been employed. An effort is made to moor boats of similar configurations in the same area - similar boats will react similarly to wind and current and can be anchored closer together than boats of differing configurations. This effort allows more moorings than would otherwise have been possible. Because of the annual "tuning" of mooring pattern and because all moorings are pulled out and their tackle inspected biannually, the mooring pattern is never quite fixed.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

8. Harbor Use and Administration (cont'd)

The use of the anchorage between the North and South Fairways has been similar to the anchorage south of the South Fairway. An effort has been made to allow the older wooden yachts to be moored together in front of the Connecticut River Museum at Steamboat Dock. All commercial rental moorings have been removed from this area. (The two anchorages immediately north of the South Fairway are a Federal dredging project and the Army Corps of Engineers objected to commercial rental moorings within the project area.)

The southern portion of the anchorage north of the North Fairway is principally allocated to support moorings for the boatyards and brokerages located nearby. The northern portion of this anchorage is reserved for transient anchoring.

This transient anchorage is separated from the mooring areas for several reasons. First and foremost is safety. A boat at anchor needs significantly more room to swing with the changes in wind and current than a boat on a mooring. Transient boaters are likely to be unfamiliar with the vagaries of Essex's erratic and strong current flows. Consequently, the visitor is likely to misjudge the swing of a boat at anchor in the Essex mooring areas. This concern for safety, combined with a ready and plentiful supply of transient rental moorings, led to the designation of the northern portion for transient anchoring. In an anchorage as small as Essex, it is impractical to allow boats to anchor in the midst of other boats which are moored to mushroom anchors or concrete blocks. The dramatic differences in swing radii alone would create a significant hazard.

The three yacht clubs in Essex Village, the Museum at Steamboat Dock and the chandlery, among them, maintain fourteen moorings which are reserved for rental by visiting boats. These moorings plus the approximately six anchoring positions in the transient anchoring area, plus the moorings made available by local boaters who are away, have been sufficient to accommodate visiting boats on most occasions.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

8. Harbor Use and Administration (cont'd)

The mooring areas in the northern reaches of Essex, west of Brockway Island, have historically been used only by the clubs and the sailing academy located on the Great Meadows.

Historically, it has been shown that a healthy commercial rental mooring operation is an important benefit to the general public and to the maintenance of moorings and mooring areas. Private mooring permit holders have required assistance in acquiring quality tackle and having it placed correctly. Many transient boaters have preferred the convenience and security of a professionally placed mooring. The commercial operations have provided shore support facilities and launch service for all boats in the harbor. The services of a commercial operation are used for the placement and maintenance of navigational aids (harbor buoys) by the Town of Essex.

The various practices of harbor usage and allocation, such as the number of commercial rental moorings, the number of support moorings and the number of private moorings have been codified into a permit system by the Harbormaster. This effort, which began in 1984, has yielded an administrative system which reflects historical practices and serves the Essex harbor well.

The number of moorings in Essex has reached the capacities of the main anchorages. This condition has led to the creation of a formal waiting list for private moorings in Essex. The waiting list currently contains about seventy names. Each year, mooring turnover has allowed the granting of approximately five new permits to individuals from the waiting list.

I. EXISTING CONDITIONS (cont'd)

C. Characteristics of Coastal Area

8. Harbor Use and Administration (cont'd)

The natural foci of attention in Essex are the main mooring areas and commercial district at the foot of Main Street and in the Connecticut River. However, Essex has a capacity for water activity and storage in its coves and other areas. These areas have been used by craft according to the water depth, bottom and other characteristics of each area. The three coves of Essex: North Cove, Middle Cove and South Cove are used for mooring in a limited fashion. North Cove has a deep channel and ten or twelve boats are moored, fore and aft, along the sides. The channel in Middle Cove is narrow and dredged. This precludes mooring boats along the sides. Therefore, Middle Cove, like South Cove (which has no significant channel) has very few moorings. The boats which are moored in Middle and South Coves tend to be smaller craft which can take grounding at low tide.

II. CONCLUSIONS AND ANALYSIS⁸

Based on the previous data relative to existing conditions, certain conclusions can be arrived at, as noted below, which represent a background to the issues and problems in Section III.

- A. As previously noted, much of the Essex waterfront is characterized by fragile soil types such as found on the Great Meadow and the shallow water of the coves, which separate the upland areas from the main river channel. As a result, almost all development and marine activity takes place in the small, 50+ acre finger of land which projects into the Connecticut River (known as Essex Village) which accounts for less than 15% of the town's total river frontage.
- B. Since the river is a major attraction to both residents and tourists, and since both must reach the river via Essex Village, the Village has the highest population density, the greatest traffic and parking problems and the greatest concentration of commercial uses in the entire town.
- C. The limited number of really good harbors on the Connecticut River, plus the attractiveness of the shore facilities of Essex Village, draw an unusually large number of boating enthusiasts to Essex annually with increasing pressure for more and more boating accommodations.
- D. The above conditions have set up three primary potential or existing conflicts:
 1. Between the permanent residents of Essex and the tourists;
 2. Between the residential property owners on the riverfront and the commercial marine establishments in Essex Village;
 3. Between the interests of development of the waterfront and the interests of conservation;

⁸ Town of Essex Coastal Area Management (CAM) Report, April 1983.

II. CONCLUSIONS AND ANALYSIS⁹ (cont'd)

- E. The extensive, shallow coves within the Harbor Management Area separate navigable portions of the river from land areas to which boaters would like to have direct access. Previous data and studies suggest that any substantial increase in such access could threaten the shallow, fragile, cove areas through pollution, "filling in" or other conditions noted in the "Issues" section of this study. The land areas of the Great Meadow and Thatchbed Island (also environmentally sensitive areas) lie in this area, and with the coves take up a total of 650+/- acres, or over 46% of the total coastal management area in Essex. It is the proximity to these two kinds of environmentally sensitive areas, the shallow water coves and the pendant river bars, to the high intensity development in Essex Village which sets the stage for many of the issues associated with the Essex waterfront.
- F. Pollution is a potential hazard all along the Essex waterfront, because so much of the water adjacent to the uplands is in shallow coves not flushed by the river's flow. This condition has been compounded by lack of sewers on the land areas, combined with difficult soil conditions in many sections as previously noted. As can be seen by examining figures 4a, 4b, large areas of the uplands (occupied by residential uses) are characterized by soils with "severe" limitations for on-site sewage disposal. Fortunately, lot sizes along the riverfront are, in most cases, fairly generous, thus reducing the problem under current ownership, where zoning permits smaller lot sizes; however, there always exists the danger of hazards resulting from changes in ownership followed by more intensive development. On-site sewage disposal leachate presently is causing no pollution problem on the river; however, failure of systems is a potential hazard. The Town of Essex is currently working on a proposal for an appropriate sewage system.
- G. While some protective action has been taken to preserve parts of these environmentally critical areas, less than 20% of the 650 acres are preserved through public or private preservation programs.

⁹ Town of Essex Coastal Area Management Report (CAM) April 1983, page 14.

III. ISSUE IDENTIFICATION

With the assistance and cooperation of Dr. William Niering (Professor of Botany, Connecticut College), the Planning Commission of Essex and the Coastal Management Office of the Department of Environmental Protection, a list of waterfront related issues has been developed with the aid of public input which takes into account existing and potential concerns (see fig. 5).

In order to allow for appropriate grouping of the issues identified in this study in terms of common influence factors, it has been determined that the area be further broken down into three study areas based on distinctly unique physical characteristics as follows:

. Study Area A (Water):

Areas totally underwater (essentially, the Connecticut River).

. Study Area B (Intertidal)

Areas partially underwater, or underwater part of the time due to regular flooding or tidal action.

. Study Area C (Inland)

Areas totally above water (except for extreme flooding).

Within each of the above-designated "STUDY AREAS" we will classify the issues as relating to one of the five following use groups:

- . Residential
- . Commercial or Industrial
- . Recreational
- . Conservation
- . Public or Semi-Public

III. ISSUE IDENTIFICATION (cont'd)

A. STUDY AREA A (WATER)

1. Residential Issues

a. Boating Traffic

With one Harbor Master and a deputy, whose duties are limited, and an ever-increasing boating population, boat traffic along the Essex waterfront is an issue which needs attention. According to the most recently completed Economic Study:

"The influence of the River on the development of Essex can be seen in the proliferation, almost totally in the small area of Essex Village, of over 30 businesses devoted to the boating industry, including three marinas, eleven boat dealers, and nine manufacturers or suppliers of boating equipment, plus boat builders, naval architects, and charter companies."¹⁰

b. Moorage of Large Vessels

That portion of the Connecticut River devoted to intensive boating activity is the Essex Village waterfront, or less than 15% of the Essex Connecticut River shoreline. The greatest proportion of this shoreline (over 15 miles) consists of the Great Meadow, Thatchbed Island and Haydens Point.

While it has not been experienced, it has been determined that in the future owners of large recreational vessels may seek mooring space in the limited mooring area. As a consequence of the erratic movement of the currents, such vessels require an excessive space to provide safe clearance from other moored vessels. In order to maximize the efficient use of the anchorage and to provide the greatest margin of safety large recreational vessels shall not be accommodated on moorings within the mooring area.

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"Digest of Economic Study, Town of Essex, Ct", August 1982, Page 8.

III. ISSUE IDENTIFICATION (cont'd)

A. STUDY AREA A (WATER)

2. Commercial Issues

The river has its commercial uses and issues as noted: boating traffic has a strong commercial interest, including commercial fishing boats and tour boats as well as the commercial marinas and on-shore facilities that cater to them.

a. Commercial Marine Development

The harbor and marine facilities of Essex are counted among the assets of Essex. The Town must attempt to balance the interests of the citizens of the town, the interests of the town's commercial enterprises and the interests of the general public both on the land and on the water. The Town must consider the positive and negative aspects of increased development. New enterprises attract additional customers and tourists. These visitors bring additional activity and money to the commercial life of Essex. This commercial life provides jobs and income for many citizens of the town. The increase in visitors increases the pressure on parking, moorings, slips and other limited resources. The increase in visitors also poses problems for public services such as police, fire protection, public health, etc.

III. ISSUE IDENTIFICATION (cont'd)

A. STUDY AREA A (WATER)

2. Commercial Issues

b. Fishing Areas

While Essex's boundary lines run along the Connecticut River and include several coves, public areas for fishing or access to such areas can be difficult due to the fact that most of the waterfront is privately owned.

This is one of the most important waterfront issues, which affects people who do not own or have access to waterfront property, yet many of whom are residents of the town with its extensive waterfront. It also affects others (nonresidents) who come to Essex by boat and can utilize the fishing areas along the Essex waterfront, in many cases more easily than some residents.

3. Recreational Issues

Water, of course, has always been one of the primary ingredients of recreational development, and the primary motivation for development of the Essex waterfront today is undoubtedly recreational. As previously noted, there are boating, water skiing, hunting, swimming, and fishing, each of which poses some issue due at least in part to the relatively small proportion of the waterfront in which all activities must take place.

a. Safety Provisions for Aquatic Sports

Along with the obvious activity and related safety regulations for boating, there are other water related activities which need to be addressed. Examples are the small group of "Wind Surfers", "Jet Skiers" and others which are growing in numbers. The safety of the waterfront is contingent upon a review of the various water activities presently taking place and expected in the future.

III. ISSUE IDENTIFICATION (cont'd)

A. STUDY AREA A (WATER)

4. Conservation Issues

Since over 20% of the Connecticut River waterfront in Essex has been designated as open space or conservation lands, there are a number of issues resulting from the impact of the intensive boating activity radiating out from the Essex Village area on the generally fragile ecosystem which fringes the river itself.

a. Aesthetics

Considered highly pleasing visually, both Essex's waterfront and inland areas are valued by the townspeople and visitors alike. Aesthetics, while at times intangible, often influence decisions on many other issues as well as land values and, therefore, must be considered to be of major importance. In this context, the heavy use of the water areas poses at least the potential for damage to the more aesthetic aspects of the river and must be considered in this light.

b. Water and Air Pollution

While, as previously noted, the quality of the water and the air in Essex remains relatively clean, it is not a condition that is self-maintaining and requires continual monitoring. In terms of the potential for water pollution, the problem is aggravated by the coves north and south of the Village where the combination of shallow water depths and lack of direct river current flow makes water pollution a much more serious potential hazard than out in the main river channel.

III. ISSUE IDENTIFICATION (cont'd)

A. STUDY AREA A (WATER)

5. Public and Semi-Public Issues

Perhaps the most frustrating problem in the open water areas of the Connecticut River is the question of "who's in charge?"

a. Overlapping Jurisdiction

A variety of town, county, state and federal agencies and commissions have some jurisdiction over the Essex waterfront areas. Organization of these various regulatory responsibilities is needed in order to provide a more consistent basis for future decisions relative to use of the waterways.

It seems likely that serious problems such as heavy boat traffic and possible related pollution cannot be adequately controlled until a clear chain of responsibility can be made and the Town should be a major link in order to protect the interests of its citizens, who are most directly affected.

B. STUDY AREA B (INTERTIDAL)

This area includes those areas affected by rising and lowering tides as well as by seasonal flooding and covers much of the marginal shore between the river proper and the land.

1. Residential Issues

a. Riparian Rights¹¹

The State of Connecticut holds title to all tidal lands below mean high water line in trust for the public. At the same time it has been recognized historically that land owners "on the banks of water courses" have the inherent right to access navigable waters.

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Based on:

1. A letter to the Harbor Management Commission from Arthur J. Rocque, Jr., Director of Coastal Land Management Program, Department of Environmental Protection, dated May 10, 1988.
2. "Determining Riparian Rights", Dwight Merriam, March 3, 1988.

III. ISSUE IDENTIFICATION (cont'd)

B. STUDY AREA B (INTERTIDAL)

1. Residential Issues

a. Riparian Rights (cont'd)

The courts have emphasized, however, that these private riparian rights are not unqualified or absolute. The legal aspects of the matter have evolved through common law over many decades. They have been developed on a case-by-case basis that recognized the great variations in title, topography and configuration among different properties. In addition, the courts have taken the view that, where necessary, the riparian rights of an individual must be modified to accommodate the public interest. In the context of this Harbor Management Plan, the public interest would involve such goals as public water safety, protection of sensitive ecological assets, public access to the water (both visually and physically), and the avoidance of water traffic congestion.

2. Commercial Issues

Commercial marine development and limited commercial fishing are the two commercial issues that really cross over the water and intertidal study areas. There is also concern over:

a. Public Access

Public access to the Essex waterfront and harbor facilities is severely limited by the lack of public land on the water. Although there are nine legal public access points to tidewater in the Town of Essex as shown on the "EXISTING USES" map (fig. 6), there are severe physical limitations to each location that hinder even limited use by the public.

III. ISSUE IDENTIFICATION (cont'd)

B. STUDY AREA B (INTERTIDAL)

2. Commercial Issues

a. Public Access (cont'd)

There is no designated public parking area at any of the nine locations; many have room for only one or two cars to be parked at the side of the streets that terminate at these rights-of-way to the water. Location No. 3, Foot of Ferry Street, ends in a vertical bulkhead and thus has no practical launching access to the water; the only recognizable launching ramp (No. 4 - Foot of Main Street) leads to relatively shallow water and has parking only along Main Street in the immediate vicinity. The remainder of the listed access locations are primarily at the ends of narrow local streets in fully developed residential areas; parking at these locations is at best restricted to local residents on these streets or to neighbors who use nearby driveways to park as guests of residents.

The problem of improving public access to the water is a complex issue which will require serious and continuing efforts to solve. New construction, in the form of a public dock or adequate small boat launching facilities (including required parking areas), would improve the current situation but would also require special consideration as with any harbor improvement and the commitment of public funds to this purpose. Also, from the commercial point of view, river and harbor frontage is most productive when used for marina sites, tending to limit the allocations of scarce waterfront to provide access for fishing and pleasure boating on the water.

III. ISSUE IDENTIFICATION (cont'd)

B. STUDY AREA B (INTERTIDAL)

3. Recreational Issues

In these intertidal areas there are a number of recreational use issues which, as noted above relative to commercial uses, may overlap several of the Study Areas. Shallow draft boating and fishing are popular forms of recreation in this area.

a. Wildlife Preservation

Because of the more dominant issues of boating, pollution control and riparian rights, the issue of wildlife preservation can be easily overlooked. However, if a "balanced" environment is to be maintained, the area wildlife needs protection. The osprey require the river's aquatic resources; and salmon are returning to the river.

The River as well as many of its smaller tributaries including the Falls River, are important corridors for the migration of anadromous and catadromous fish. North Cove and Falls River are also an important spawning and nursery habitat for white perch. In addition, a comprehensive finfish study¹² conducted in the Lower Connecticut River (1965-72) showed the largest number of finfish and greatest diversity of species of any area in the lower River. This demonstrates the importance of this brackish water habitat to marine, estuarine and anadromous fish species.

In addition, it is recognized that recreational duck hunting is popular in this area.

¹²

Merriman, Daniel and Lyle M. Thorpe (ed. 1 1978. The Connecticut River Ecological Study. The impact of a Nuclear Power Plant. American Fisheries Society, Setheads, MD 248pp

III. ISSUE IDENTIFICATION (cont'd)

B. STUDY AREA B (INTERTIDAL)

4. Conservation Issues

In the intertidal study area are located the most fragile ecosystem and the area most susceptible to damage by heavy use.

a. Wetland Preservation

Fundamental to the quality, if not the very existence, of life is the resource of water, not only its quality, but also the quantity. To provide a basis for natural and human habitats, it is necessary to maintain some form of wetland preservation. An area including such a large amount of critical wetlands as the Essex waterfront requires special attention.

The prime issue here is created by the close proximity of the wetlands to the highly developed area in and around the perimeter of Essex Village.

b. Unauthorized Filling of Coastal Waters

Unauthorized filling of coastal waters and wetlands along the waterfront raises serious questions about the usurpation of public water rights, potential pollution and other forms of environmental degradation, and potential flood damage due to the shrinkage of absorptive wetlands. At present the Town of Essex is vulnerable to such actions, whether by private groups or persons, because local commissions have no authority to regulate them. By statute, the authority rests with the State Department of Environmental Protection and the Army Corps of Engineers, but these agencies have not been provided with adequate resources to police such violations.

III. ISSUE IDENTIFICATION (cont'd)

B. STUDY AREA B (INTERTIDAL)

5. Public and Semi-Public Issues

A primary concern referred to earlier is overlapping jurisdictions. The concerns for conservation and protection of natural resources are perhaps most critical in the intertidal area which has neither the deep, free-flowing water of the river nor the solid land of upland areas. Here we find the need for control of use to protect wetlands, wildlife and fragile ecosystems and to prevent erosion and sedimentation.

In this area of intense activity, pollution control is a major concern. Again, the public agencies involved have overlapping jurisdiction.

Much of the critical land area on the Great Meadow portion of Study Area B is in private ownership. The owners so far have recognized the importance of preserving this area's natural resources. Without zoning control, if changes in ownership take place, there may be serious pressure for development which could endanger much of the Great Meadow and the adjacent shallow coves.

III. ISSUE IDENTIFICATION (cont'd)

C. STUDY AREA C (UPLAND)

This study area consists of land beyond the direct influence of the water where issues are, to a large extent, similar to those of the rest of the town.

1. Residential Issues

a. Automobile Traffic

Due to the combination of narrow streets and large transient population, principally tourists, automobile traffic presents a problem in Essex Village. The issue is, again, interdependent with issues facing other town commissions such as Zoning and Planning and therefore should be dealt with in conjunction with the appropriate group. Automobile traffic is one issue which has a direct impact on residential owners in Essex Village as well as those who live north and south of the Village along the river.

b. Parking Problems

Parking has become a major problem in Essex Village, in large measure as a result of the automobile traffic discussed above. While seemingly unrelated to harbor management issues, parking becomes pertinent due to increasing demand resulting from shoreline and waterfront uses, such as shops and restaurants. In addition, there is substantial demand for parking space by those seeking water access. This demand is generated by those who keep their boats at the waterfront, those who need a place to park after launching, and those who simply wish to enjoy looking at the waterfront activity.

III. ISSUE IDENTIFICATION (cont'd)

C. STUDY AREA C (UPLAND)

2. Commercial Issues

Most of the commercial activity along the Essex waterfront occurs in the Upland Study Area. This activity in turn, is almost totally concentrated in Essex Village. There are over 100 commercial establishments in this small village center. The previously noted issues of traffic and parking are very real issues.

a. Land Availability

While Essex has several miles of shoreline, there is very little land with deep water access. Essentially all of this land, combined with its high level of development, has caused the value of waterfront land to rise greatly in recent years. The price levels preclude the conversion of any residential or nonmarine commercial properties to marine commercial usage. The economic pressures are to convert the few remaining marine commercial properties to other uses. If the Essex waterfront is to remain a viable marine environment, it will be necessary to actively support the existing water dependent establishments and to actively inhibit any attempt to convert marine-oriented enterprises to nonmarine uses.

b. Condominiums and Dockominiums

The economic pressures to convert waterfront commercial properties to residential condominiums are great. The pressures to convert rental slips to dockominiums are also great. While the conversion of a waterfront property to condominiums creates an obvious loss of marine viability, it is not as obvious that the conversion of docks to dockominiums is also a loss. The fear is that the dockominium operation will function more like a private club than a public marina or boatyard. The ability to view waterfront activity or even the ability to view the river could be curtailed. Such restrictions would be detrimental to the character and ambience of Essex.

III. ISSUE IDENTIFICATION (cont'd)

C. STUDY AREA C (UPLAND)

3. Recreational Issues

A primary recreational issue for this Upland Study Area is the problem of getting to the water. Traffic and parking problems in Essex Village are aggravated in the summer by boaters trying to get to the river. To get there to enjoy their recreation, they must traverse the most narrow and crowded streets in the entire town.

4. Conservation Issues

Due to both natural and man made causes, the processes of soil erosion and sedimentation are important issues that need to be dealt with in this study area. This area consists of a mixture of developed land and undeveloped land, although most is developed in the critical Essex Village area. According to Dr. Niering's report:

"Intensive land use or disturbance of the natural plant cover near the water's edge can result in serious erosion and eutrophication."¹³

Therefore, areas suffering from or in danger of erosion and sedimentation which fringe the Village area need to be documented and an ongoing program of maintenance established as a preventative measure to what otherwise could have a devastating effect on the Essex waterfront.

¹³

"Environmental Concern Within the Coastal Zone, Essex, Ct", pages 3-4, Dr. William Niering, Professor of Botany, Ct. College, September 7, 1982.

IV. HARBOR MANAGEMENT GOALS: TOWN OF ESSEX

On October 2, 1985, the newly formed Ad Hoc Committee, charged by the First Selectman with determining the need for a Harbor Management Commission, held a public meeting. Citizens of Essex and the committee listed and discussed twenty-three (23) items of concern relating to the present and future use of their harbor.

Due to the quantity and severity of the harbor concerns and the amount of public input, the Essex Harbor Management Commission was soon authorized. Armed with the list of twenty-three (23) items, the commission set about establishing goals. These were developed with input from a variety of sources including: a review of planning and policy studies; zoning regulations; discussion with state and local agency personnel, as well as Coast Guard and other federal personnel; a review of recent municipal studies including a Coastal Area Management report prepared for the Town of Essex; and finally, a Public Hearing, October 22, 1987, which has generated significant additional input from the public at large.

The goals presented here represent the distillation of this information and form the foundation of our Harbor Management Plan.

- A. Regulate the use of the harbor and all tidal waters in order to resolve conflicts among the harbor uses in a manner which provides for the safe, orderly and efficient use of the water and the waterfront. The conflicts exist because demand for recreational use of these waters from moored yachts, water skiers, sailing, rowing, and/or fishing has created an overcrowded condition that is hazardous to the safety of property and lives.
- B. Provide for water-dependent uses in areas suitable for supporting such development and designate those areas. Presently, due to a high recreational demand, water areas need to be separated into mooring areas, recreation areas, and conservation areas. Public access to the water (see fig. 6) should be addressed with the view toward improvement. Dredging for maintenance and new recreation areas should be considered, provided that an evaluation of resources shows that such work is environmentally acceptable. This provision is made for a more orderly growth. Priority and preference would be accorded to water-dependent uses in suitable waterfront locations.

IV. HARBOR MANAGEMENT GOALS: TOWN OF ESSEX (cont'd)

- C. Encourage the development of new facilities that improve public access to the water and encourage the improvement and expansion of current facilities offering public access to the water. Public access includes the ability to get to the water physically as well as the ability to observe the activities on the water. Improvement in visual access is also important. While encouraging efforts to make the harbor and associated activities more available to everyone, discouragement of developments that restrict access to and use of the harbor are also needed.
- D. Encourage efforts to improve the water quality throughout the harbor, with an understanding that restricted flow and flushing of the water systems of our coves increases the need for their care.
1. Encourage the development of marine pump-out facilities and the general use of holding tanks or treatment systems on water vessels.
 2. Encourage improvements in shore-based sanitary facilities for use by those residents and nonresidents using our harbor.
- E. Provide for the maintenance and enhancement of existing non-Federal navigation channels, basins and anchorages in Essex. Maintenance dredging means the redredging of an area which has been dredged previously under proper permits to maintain authorized depths. The three coves and mooring area are filling in because of past dredging practices that allowed spoils to fill back into the coves and because of the relocation of the main navigational channel. This process has developed over the last 50 to 60 years. The most acute filling-in of the coves and especially the mooring area has been in the last 30 to 35 years with the cessation of commercial barge and tanker traffic to Essex Village (a tank farm was located at the present site of Essex Yacht Club). Since that time the "old" or west channel has not been maintained. The combination of the lack of flushing action from downstream current and tides in the more natural, deeper water and dredging spoils having been deposited on Thatchbed Island, the Great Meadow, and an artificial island in Middle Cove, has helped fill the coves. Additional filling-in has resulted from severe erosion that came from several floods in the early eighties.

IV. HARBOR MANAGEMENT GOALS: TOWN OF ESSEX (cont'd)

- E. 1. Presently there is no local funding process for maintenance dredging.
- 2. The overlapping jurisdiction of local, State and Federal authorities will be ameliorated by a Harbor Management Commission.
- F. Provide for the efficient and equitable distribution of commercial rental, support and private moorings. The increased demand for mooring space has exceeded the room available.
- G. Insure the efficient use of the anchorage by limiting the maximum length of recreational vessel in the limited mooring area.
- H. Provide adequate anchorage, mooring, and dockage for the public and sufficient anchorage with shore access for transient boaters so that the harbor is open to all on an equitable basis.
- I. Provide for public utilization and enjoyment of the waterfront by preserving Essex's historic maritime character and by coordinating activities between private and commercial recreational boating demands. In the past, demand had not outstripped the supply for space; today there is too much demand thus the need for regulation.
- J. Recognize the importance, both historically and economically of the town's maritime industry and take appropriate measures to insure its continued viability by encouraging stronger coordination between Planning, Zoning and Park and Recreation Commissions.
- K. Insure the federally designated special anchorages adjacent to the Essex shoal channel (see fig. 7) as well as the federally designated channels remain eligible for Federal maintenance dredging. The Army Corps of Engineers has maintained the Essex Shoal Channel, the Essex Inner Channel, and both special anchorages. Without periodic maintenance dredging, the anchorages and the channels will shoal to nonusability. Insure that commercial and private docks do not intrude into channels or anchorages. Insure unobstructed access to all channels and anchorages, both those federally designated and those established locally. Insure proper marking of channels and anchorages.

IV. HARBOR MANAGEMENT GOALS: TOWN OF ESSEX (cont'd)

- L. Encourage nonstructural solutions to flood and erosion problems except in those instances where alternatives (i.e., groins, seawalls, ravagement, etc.) prove unavoidable and necessary to protect existing inhabited structures, roads, sewer, utilities or water-dependent uses.
- M. Protect the remaining tidal wetlands from further degradation from wake damages by encouraging state and local authorities to enact and enforce speed laws on the river.
- N. Maintain the value of critical wildlife habitats by encouraging Zoning to restrict development of these areas. To date Essex has been successful in this area.
- O. Establish a fund to be used for the administration, operation and maintenance of the harbor through transient mooring fees, mooring permit fees and boat launching fees. This fund is to be used solely for harbor improvement goals, administration and enforcement.
- P. Control and improve the water quality of the harbor, while preserving the character of the waterfront.
- Q. Encourage the expansion of the Main Street dock and launch facility. Create a small boat docking facility off the Town Park. Construct a dock and dredge the Bushnell Park area (Access #2, Figure 6), provided that an evaluation of resources shows that such work is environmentally acceptable. Mark all public access areas so as to better inform the public of town facilities.
- R. Establish areas in North, Middle and South Coves currently being used for moorings, anchorages or fairways as designated dredging projects to maintain present depths provided that an evaluation of resources shows that such work is environmentally acceptable.

IV. HARBOR MANAGEMENT GOALS: TOWN OF ESSEX (cont'd)

- S. Encourage the development of multi-town harbor districts. The purpose of such districts would be to coordinate the management of multi-town resources, resolve multi-town problems and provide a forum for the establishment of regional water use policy. Pertinent examples include the establishment of a special anchorage off the Lyme shore across from Essex and the control of speed and wake from the mouth of the river to some point north of Essex.

- T. Protect the water quality of the harbor by enforcing codes for the timely replacement of storage tanks of natural or man-made chemicals to minimize accidental leakage or spillage.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

To implement the Harbor Management goals as set forth herein, it is recommended that the following items be included as part of the Essex Harbor Management Plan: a water use plan, transient anchorage, mooring plan, harbor administration, ordinances and regulations.

A. Essex Water Use Plan

The Essex Water Use Plan is drawn as Figure 1 and presents the Harbor Management Commission's recommendations for conservation, development and use of Essex Harbor. In accordance with Section 22a-113n of the Harbor Management Act, all state and municipal decisions within the area of the Harbor Management Commission's jurisdiction shall be consistent with this water use plan, unless contrary actions are supported by a "show cause" justification.

1. Preservation of Coastal Resources

The preservation and improvement of significant natural resources in Essex Harbor are consistent with the Connecticut Coastal Management Act and the Essex Municipal Coastal Program, and is further supported by the Essex Harbor Management Plan.

a. Tidal Wetlands and Intertidal Flats

The ecological values of intertidal resources for habitat, breeding, nutrient productivity, storm water retention and pollution control are well established. Tidal wetlands and intertidal flats, as defined by state statutes, are depicted on the water use plan. Consistent with state statutes and regulations and the Essex Municipal Coastal Program, the following policy shall apply:

(1) The preservation of tidal wetlands and intertidal flats is the primary consideration in the determination of use. Limited uses and structures may receive regulatory approval if the resource impacts are demonstrated to be minimal.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

A. Essex Water Use Plan (cont'd)

2. Structures

To assure the orderly, safe, and efficient use of designated mooring areas, anchorages, fairways and other navigation areas, the following policies shall apply:

- a. There shall be a 15 foot setback of all new structures from any designated channel, turning basin, fairway, mooring areas, or anchorage, except as noted in b and c following. The setbacks from these areas are delineated on the water use plan. Existing structures which extend into the setback area may be subject to periodic removal, if required, for maintenance dredging.
- b. There shall be a 25 foot setback on the 10 foot channel for all fixed structures.
- c. There shall be a 10 foot setback on the Middle Cove channel for all fixed structures.
- d. No vessel lying at a structure permitted after the adoption of this plan shall extend into the limits of the channel, fairway, turning basin, mooring or anchorage setbacks, as delineated on the water use plan. The sole exception to this prohibition shall be the use of structures which are authorized by State and Federal permit and pre-exist adoption of this Plan. Notwithstanding, and as noted on the water use map, in no event shall a vessel intrude into said channel, fairway, mooring area, turning basin, or anchorage setbacks.

3. Special Restrictions

To resolve identified conflicts between harbor uses and to promote public safety, the following policies are incorporated into the water use plan:

- a. Swimming should be prohibited in all designated channels and fairways.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

A. Essex Water Use Plan

3. Special Restrictions (cont'd)

b. No fixed commercial fishing gear shall be set at any time within any navigable channel as indicated by United States Coast Guard channel markers or within any fairways as designated by this Harbor Management Plan. No fixed fishing gear shall be set in any mooring area as designated by the Harbor Management Plan during the period May 1 through October 15. (Regulations of Connecticut State Agencies, Department of Environmental Protection, Bureau of Fisheries Section 26-142a-3a-(d))

c. Recreational activities in channels, fairways, anchorages and mooring areas should be regulated.

4. Public Access

Public access to Essex Harbor shall be preserved and improved together with all proposed harbor uses and development. Accordingly, the following policies shall apply;

a. No proposed structures or uses shall restrict existing public access, as delineated on Figure 6.

b. Plans reviewed by the Harbor Management Commission in accordance with Section 22a-113p of the Harbor Management Act shall be examined for potential impacts to existing or proposed public access.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

B. Transient Anchorage

Achievement of a number of goals in Section IV requires that the town dock and boat launching area at the foot of Main Street serve as an access point for a transient mooring or the anchorage area. This location provides easy pedestrian access to services. The Essex harbor water use plan designates a portion of the Coast Guard designated mooring area as reserved for transient anchorage and shall be free of moorings.

C. Mooring Plan

1. No commercial rental mooring will be permitted within the federally designated areas.
2. All mooring assignments will be made to maximize use of the harbor with due consideration for draft, length, and hull design.

D. Harbor Administration

In order to meet its stated objectives, the Commission will function within an administrative framework regulated by municipal ordinances contained in Section VI and enforced by the Harbor Master or designee. The Harbor Management Plan includes the following administrative framework:

1. Review of Local Plans

In accordance with the provisions of Section 22a-113p of the Harbor Management Act and Section 8 of an ordinance creating a Harbor Management Commission, the following local boards and commissions must notify the Harbor Management Commission of any and all pending proposals for real property in, on or contiguous to water within the jurisdiction of the Harbor Management Commission.

- a. The Planning Commission
- b. The Zoning Commission
- c. The Zoning Board of Appeals
- d. The Water Pollution Control Authority
- e. The Sanitary Waste Disposal Commission
- f. The Park and Recreation Commission
- g. Any other commissions with jurisdiction in this area

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration

1. Review of Local Plans (cont'd)

The Commission shall establish a procedure to receive proper notification of local plans in conformance with Section 22A-113p of the Harbor Management Act and plans will be reviewed at regularly scheduled meetings of the Harbor Management Commission. All meetings shall be open to the public. The Commission shall determine the consistency of any proposal with the Harbor Management Plan. Upon receipt of a finding of inconsistency by the Commission, the primary reviewing agent (e.g., Planning or Zoning Commission) may approve a project, but a two-thirds majority vote of such agency is required to do so.

2. Establishment of a Harbor Management Fund

In accordance with Sections 22a-113s of the Connecticut General Statutes, the town of Essex shall establish, by ordinance, a Harbor Management Fund to provide for the costs associated with administering the Harbor Management Plan. The ordinance shall specify terms of the fund, sources of revenue, and permitted expenditures.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration (cont'd)

3. Harbor Master

In addition to existing powers and duties, the Essex Harbor Master shall assume the following duties in accordance with Section 22A-113k, 113R, and 113S of the Harbor Management Act:

- a. Act as a nonvoting, ex-officio member of the Harbor Management Commission.
- b. Issue permits for all moorings.
- c. Keep records of the locations of all moorings, permit holder names, and vessel names within the designated Harbor Management Area.
- d. Prepare and make available for the public a current waiting list for private mooring permits if demand is greater than the number of moorings available in any given year.
- e. Collect mooring permit fees, any other fees or fines annually, or when due, for deposit into the Harbor Management Fund.
- f. Enforce any ordinance or provision of the Harbor Management Plan.
- g. The Harbor Master or Deputy will be available to the Essex Harbor, as required by the Harbor Management Commission, Memorial Day through Labor Day.
- h. The Essex Harbor Management Commission will reimburse the Harbor Master or Deputy for time and expense spent on harbor duties over and above State-assigned duties.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration (cont'd)

4. Mooring Area Administration

In order to provide for the proper administration of the mooring area, the following administrative procedures will be followed:

- a. All moorings are to be located in assigned positions. The Harbor Master or designee will inspect and approve moorings before placement.
- b. Mooring permits are issued for one year, January 1 to December 31, and must be renewed annually. An annual fee shall be charged for each mooring in a designated mooring area and shall be collected by the Harbor Master prior to the issuance of a mooring permit. The fee schedule shall be posted in the office of the Town Clerk.
- c. Available moorings shall be allocated on a first-come, first-serve basis without regard to residency. First preference shall be extended to those with existing moorings placed in Essex Harbor. A minimum of 10 percent of all moorings will be reserved for transient users. Every effort shall be made by the Harbor Master to accommodate specific needs due to draft, beam, length and available access from the shore. A permit holder shall have priority rights to a mooring permit each year, if renewed at the proper time.
- d. Vessels over 50 feet in length shall not be accommodated on moorings within the mooring areas so as to maximize the efficient use of the anchorage and to provide the greatest margin of safety.
- e. The number of commercial rental and support moorings allocated within the system shall be based on available data and knowledge of the Harbor Master with respect to prior demand for private and commercial rental and support moorings. A maximum of 50 percent of moorings within the mooring system shall be available for commercial rental and support use.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration

4. Mooring Area Administration (cont'd)

e. (cont'd)

However, the Harbor Master shall reserve the right, after March 1st of each year, to issue more than 50 percent for commercial rental and support use, provided that less than 50 percent has been requested for private use. Similarly, the Harbor Master, after March 1st of each year, may issue more than 50 percent for private use, provided that less than 50 percent of the available moorings have been requested for commercial rental and support use. Such adjustments shall be valid for the duration of one mooring season only.

f. In accordance with Section 22a-113r of the Connecticut General Statutes, the Harbor Master shall keep a record of permit holders, including vessel name and location of each mooring. The Harbor Master shall keep a current waiting list of private mooring applications available for public inspection.

g. Private mooring permits shall be issued to individual permittees for active use and may not be leased, sold, or transferred. Commercial rental mooring permits shall be issued to commercial operators who shall provide parking, access, launch services, adequate sanitary facilities and other shoreside amenities as needed. Commercial rental moorings may be leased by the commercial operator to individuals. Support mooring permits shall be issued to water dependent activities for storage of vessels as part of or in support of that water dependent activity. Support moorings may not be used for short or long term rental, lease or subtenancy.

h. Minimum mooring tackle specifications are suggested to reduce the potential of mooring failure and are presented in Article IV, Section 28 of the Ordinance. Mooring permits are subject to utilization of secure tackle as determined by the Harbor Master's initial inspection or biennial inspection. These are recommended guidelines only and all liability is that of the mooring owner.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration (cont'd)

5. Transient Anchorage Use

To assure the equitable and efficient use of the transient anchorage areas, the following policies shall apply:

- a. The transient anchorage is designated for short-term use only. Vessels may remain anchored in this area for a period not to exceed seven consecutive days.
- b. Vessels in all designated transient anchorage areas shall be anchored securely and properly.
- c. Operator of a transient vessel may go ashore while using the transient anchorage but may not leave the Essex area without notifying the Essex Harbor Master that his vessel is unattended.

6. Boating Safety and Traffic

To assure the safe and efficient movement of vessels in Essex Harbor, it is recommended that a series of rules and regulations be enacted by ordinance to:

- a. Limit vessel speed and wake to protect other vessels and structures, and to protect the shore from erosive wave action;
- b. Enforce, where necessary, any and all provisions and designations on the water use plan.

7. Town Facilities

To assure the safe and efficient use of Town-owned harbor facilities, it is recommended that rules and regulations be enacted by ordinance to regulate the use of town docks, boat launching ramps, landing areas and transient anchorage and mooring areas.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration (cont'd)

8. Waterborne Hawkers

It is recommended that within the waters shown on the Water Use Plan (Figure 7), no floating or pier based hawkers be permitted since this is not a water dependent use.

9. Location and Density of Non-Commercial Structure

The general goals and responsibilities of the state and town are: to retain the maximum public trust area for the public, to protect ecological balance, to maintain tidal flows and to enhance visual attractiveness while giving due regard to property, riparian and littoral rights. In order to accomplish these it is recommended that:

- a. No more than one non-commercial dock will be allowed per parcel of waterfront property.
- b. Structure placement will be guided to minimize density, size and adverse impact on coastal resources necessary for access. Some possible alternatives to "wharfing out" to deep water might be; partial wharfing and partial dredging or use of moorings with only permanent structures for launch or dinghy shuttle to deep water.
- c. Priority will be given to shared docking facilities of adjacent property owners or other multiple user ideas for a single dock or expanding the use of existing structures to multiple users.

In areas where no piers exist on the date of adoption of this Harbor Management Plan, review of the applications for new piers shall include consideration of the distance to navigable water, the impact on navigation, tidal flow, wildlife and ecological systems and the effects on the visual aspect of the shoreline from the viewpoint of adjoining property owners and the public while giving due regard to property, riparian and littoral rights.

V. POLICY OF THE HARBOR MANAGEMENT COMMISSION: TOWN OF ESSEX

D. Harbor Administration (cont'd)

10. Penalties

Each infraction of the Essex Harbor Management Plan shall be subject to a fine per occurrence per day as directed by the Harbor Management Commission.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX

Ordinance for the Establishment of Rules and Regulations
for the Management of Essex Harbor

WHEREAS, the Town of Essex has established a Harbor Management Commission and prepared a Harbor Management Plan pursuant to the requirements of Section 22a-113k through 22a-113s of the Connecticut General Statutes and other related legislation, and

WHEREAS, the Town of Essex desires to manage its harbor resources effectively and plan for the most desirable use of the harbor for conservation, recreation, and development, and

WHEREAS, the Town of Essex supports the use of rules and regulations as the most effective and responsible means to ensure that the policies and recommendations of the Harbor Management Plan are implemented,

THEREFORE, the Essex Town Meeting hereby enacts the rules and regulations for the management of Essex Harbor as hereinafter set forth.

ARTICLE I

General Provisions

Section 1. Cancellation of Previous Ordinances. An ordinance concerning Town Docks and Landings adopted by Special Town Meeting held September 3, 1963 and an ordinance concerning Boating Safety adopted by Special Town Meeting held December 14, 1964 are hereby cancelled.

Section 2. Applicability. The provisions of this ordinance and any rules and regulations adopted pursuant thereto shall be applicable, and shall govern the use of harbor lands, water, and facilities under the jurisdiction of the Essex Harbor Management Commission. This ordinance shall be subordinate to all existing federal and state statutes and regulations affecting Essex Harbor, and is not intended to preempt any other valid laws.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

- Section 3. Invalidity of Provisions. Should any provision or provisions of this ordinance be held invalid or inoperative, the remainder shall continue in full force and effect as though such invalid or inoperative provisions had not been determined.
- Section 4. Authorities. The Essex Harbor Master or designee, under the direction of the Essex Harbor Management Commission, shall have the authority to carry out harbor management directives and enforce all provisions of the Harbor Management Plan, including this ordinance. The Harbor Master or designee may cite any alleged violators of this ordinance.
- Section 5. Violations. Any violations of this ordinance shall be a municipal infraction, and a fine not to exceed \$100.00 shall be imposed for each conviction hereunder. Each day in violation shall be considered a separate repeat offense and subject to separate citations. A fine not to exceed \$100.00 shall be imposed for each repeat offense. Fines levied under the provisions of this ordinance shall be collected by the Town of Essex and deposited into the Essex Harbor Management Fund.
- Section 6. Harbor Management Fund. A Harbor Management Fund is hereby created to receive and expend monies for harbor management purposes as determined by the Harbor Management Commission. All revenues generated by (1) boat launch ramp fees, (2) mooring permits, and (3) fines levied under the provisions of this Harbor Management Ordinance shall be deposited into the Fund. Funds shall be disbursed for purposes directly associated with the management of Essex Harbor and implementation of the Essex Harbor Management Plan. Monies from the Fund may be allocated to the Harbor Master or designee for the purpose of enforcing the provisions of the Essex Harbor Management Plan and/or this Harbor Management Ordinance. The Harbor Management Fund shall be established, budgeted, and administered in a manner consistent with the procedure contained within the Essex Town Charter.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

ARTICLE II

Definitions

- "Abode":
Means the principal, nonwater-dependent use of a structure or vessel as a dwelling or home.
- "Anchoring":
Means to secure a vessel temporarily to the bottom of a waterbody by dropping an anchor or anchors or other ground tackle from a vessel.
- "Channel":
Means any water areas reserved for unobstructed movement of vessels.
- "Commercial Rental Mooring":
Means the rental or lease of a mooring along with the provisions of shoreside amenities such as parking, launch service, and bathrooms.
- "Fairway":
Means any locally designated and/or maintained water areas reserved for unobstructed movement of vessels.
- "Harbor Management Act":
Means the legislation contained within the State of Connecticut General Statutes, Sections 22a-113k through 22a-113t.
- "Harbor Management Commission":
Means the local municipal commission established under and carrying out the responsibilities authorized by the Connecticut Harbor Management Act.
- "Harbor Master":
Means an official appointed by the Governor of Connecticut in accordance with Sections 15-1 through 15-10 of the Connecticut General Statutes.
- "Moor":
Means to permanently secure a vessel to the bottom of a waterbody by the use of mooring tackle.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

"Mooring":

Means a place where buoyant vessels are permanently secured to the bottom of a waterbody by mooring tackle and by permit from the Town of Essex and other agencies as required.

"Mooring Tackle":

Means the hardware used to secure a vessel at a mooring and which is kept in place seasonally.

"Private Mooring":

Means a mooring assigned to an individual for personal non-rental use. This mooring is non-transferable.

"Public Access Point":

Means any designated launching ramp, pier or right of way to the water belonging to the Town of Essex and available for use by the general public.

"Support Mooring":

Means a mooring assigned to a water dependent activity, such as a boat yard or yacht broker, by permit for storage of vessels. These moorings are assigned in support of the water dependent activity and may not be used for short or long term rental, lease or subtenancy.

"Transient Anchorage":

Means any area reserved and designated on the Essex Water Use Plan for the exclusive short-term use of commercial and recreational vessels and any vessels seeking emergency shelter.

"Transient Mooring":

Means a mooring made available to transient boaters.

"Vessel":

Means every description of watercraft, other than a seaplane on water, used or capable of being used as a means of transportation on water.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

ARTICLE III

Harbor Regulations

- Section 7. Liability. Persons using the public facilities and areas within the limits of Essex Harbor shall assume all risk of personal injury and damage or loss to their property. The Town of Essex assumes no risk on account of accident, fire, theft, vandalism or acts of God.
- Section 8. Vessel Speed. The operation of any vessel within Essex Harbor and adjacent coves shall be in such manner as to protect all persons and property.
- Section 9. Obstruction of Channels, Fairways, and Berthing Space. No vessel shall be moored or anchored so as to interfere with the free and unobstructed use of the channels, fairways or berthing spaces within the area designated in Section 1 of this ordinance.
- Section 10. Swimming. Swimming is prohibited in all designated channels and fairways.
- Section 11. Fishing. The placement of lobster pot floats and fixed fish gear is prohibited in all designated channels and fairways.
- Section 12. Special Regulation.
All towed rides (e.g., water skiing, etc.) are prohibited in all designated channels, fairways, mooring areas, anchorages and throughout Middle Cove.
- Section 13. Obstruction of Public Access Point. No person or vessel shall block access by land or water to any public access point.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

- Section 14. Transient Anchorage. Vessels using transient anchorage space in accordance with the provisions of Article IV may land at the designated area, namely the municipal dock, and may leave the tender secured in this area for a period of not more than six hours. The operator of a vessel in the transient anchorage may go ashore but may not leave the Essex area without notifying the Harbor Master. The Town of Essex shall provide a reasonably secure landing but shall assume no responsibility for vandalism, theft, or general damage to tenders at the landing, in accordance with Article II, Section 6 of this ordinance.
- Section 15. Discharge of Refuse. It shall be a violation of this Ordinance to willfully discharge any refuse or waste matter, petroleum product or by-product, paint, varnish, dead animals, fish, bait, or debris into Essex Harbor.
- Section 16. Marine Toilets. No person shall operate a marine toilet at any time so as to cause or permit to pass or to be discharged into the waters of Essex Harbor any untreated sewage or other waste matter or contaminant of any kind.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

ARTICLE IV

Regulations Concerning Mooring and Anchoring
Vessels in Essex Harbor

Section 17. Placement of Moorings. It shall be a violation of this Ordinance to place any mooring in the waters of the Town of Essex without a permit from the Harbor Master. No vessel moored or anchored shall extend beyond the mooring area into any designated channels, fairways, turning basins, or transient anchorages.

Section 18. Mooring Records.

(A) The Harbor Master shall keep a detailed record of each mooring, its location, and the owner's name, home and business address, telephone number, date mooring was set, and name, length, state registration number or official number, and type of boat to be attached thereto.

(B) The Harbor Master shall maintain in a public place a waiting list for mooring space and a list for assignment of mooring space, and both lists shall be updated annually.

(C) Permits for all moorings shall be renewed annually.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

Section 19. Allocation of Moorings.

(A) The Harbor Management Commission shall establish and post in a public place, an allocation procedure and priority list for small craft mooring.

(B) As provided in Section 17(B) above, available moorings shall be offered to the senior applicant on the mooring waiting list, subject to the constraints contained in these rules and regulations. If the available mooring is not suitable to accommodate the senior applicant's vessel or specific needs, it shall be offered to the next senior qualified applicant. The senior applicant shall retain his or her place on the waiting list in this case. The Harbor Management Commission shall continue efforts to provide a suitable mooring for the senior applicant. If the senior applicant refuses a mooring which is suitable for his or her vessel in the opinion of the Harbor Master, that person shall be moved to the bottom of the waiting list. In order to obtain the most effective utilization of existing mooring facilities, a list of applicants will be maintained according to the length and draft of their vessels. This list will be available for public inspection during regular office hours at the office of the Town Clerk.

Section 20. New Application for Mooring Permit.

(A) Any interested person, persons, corporation or other group may apply for a mooring permit by completing, in full, the application provided for that purpose. In the case of a corporation or other group, however organized, disclosure of the principals of the corporation or other group and evidence of organization must be submitted by producing current articles of incorporation or a similar instrument. Applicants will be placed on the list in order of receipt by the Harbor Master of a properly filled out application.

(B) No application shall be accepted for vessels in excess of 50 feet.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

- Section 21. Mooring Permits Valid for One Year. Mooring permits shall be valid for one calendar year and shall expire on December 31.
- Section 22. Renewal of Mooring Permit. All applications for renewal of mooring permit or waiting list position shall be submitted by December 31. All applications for renewal received after this date will be treated in the same manner as new applications.
- Section 23. Mooring Permit Fee. All applications for mooring permits or renewal of mooring permit shall be accompanied by the annual fee, as established and levied by the Harbor Management Commission. Such fees shall be nonrefundable unless an application is denied or an applicant is placed on the waiting list.
- Section 24. Mooring Permits Are Nontransferable. Whenever a permittee transfers the rights, title or interest in the vessel identified in the mooring permit by any arrangement whatsoever, the mooring permit shall expire except as otherwise provided herein with respect to the original permittee. The new owner shall have no right to use the mooring space covered by the mooring permit. The original permittee may, upon written application to and approval by the Harbor Master retain the mooring space assigned under the mooring permit provided that another vessel owned by the permittee is moved onto the mooring. If the replacement vessel is significantly smaller, larger, or of different draft or type, the Harbor Master shall have the right to relocate said vessel to another, more suitable location if available. If an appropriate mooring space for the replacement vessel is not available, the mooring permit will be cancelled and a prorated refund of the mooring fee will be made.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

Section 25. Mooring Location. The mooring areas for Essex Harbor are as shown on the Essex Water Use Plan (fig. 7). These areas represent the best mooring opportunities in terms of protection and proximity to the shore. Moorings are organized with respect to type of vessel, vessel length and draft. Mooring locations have been designated in a manner which provides for an orderly and efficient arrangement of vessels. Other mooring locations may be assigned to an applicant by the Harbor Master with due consideration of vessel size, draft, riparian access, and any other relevant factors. No permits shall be granted for areas prohibited by this ordinance or contrary to any approved Plan policies or recommendations. Permits granted shall be consistent with all provisions of the Essex Water Use Plan.

Section 26. Mooring Placement. When an applicant has been issued a permit for a mooring, the Harbor Master shall assign a place and number for a specific location. The mooring float shall bear the proper mooring registration number. The Harbor Master shall verify the proper location of the mooring.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

Section 27. Transient Anchorage. Space for transient anchorage, designated within the Essex Water Use Plan (fig. 7), is available on a first-come, first-served basis. This area is reserved for the the exclusive short-term use of commercial and recreational vessels. Accordingly, the following regulations shall apply to the use and users of the designated transient anchorage:

(A) Vessels may remain at the transient anchorage for a period not to exceed seven consecutive days except in cases of special circumstances and after notification of and approval by the Harbor Master.

(B) Vessels shall be anchored securely and properly.

(C) Vessels must be anchored so as to remain within the designated area at all times and under all conditions.

(D) Vessels may be left unattended up to three days, but the vessel's operator shall not leave the immediate Essex area without notifying the Harbor Master.

(E) No structures or permanent moorings shall be placed in the designated transient anchorage area.

Section 28. Recommended Minimum Mooring Tackle Guidelines: Town of Essex.

Utilization of proper mooring tackle is necessary to secure vessels adequately at their mooring. Storms, wind, waves, tides, currents, and wash must be considered when selecting appropriate hardware. Therefore, the Harbor Management Commission recommends minimum standards for tackle to secure vessels adequately in the Essex area. These standards are advisory only, and the Town of Essex assumes no liability for personal injury or property damage which results from the utilization of any tackle which meets or exceeds these recommendations.

VI. HARBOR MANAGEMENT ORDINANCE: TOWN OF ESSEX (cont'd)

(1) Mooring tackle should meet the following minimum standards:

Registered Boat Length (Feet)	Mushroom Anchor (Pounds)	Bottom Chain (Inches)	Top Chain (Inches)	Nylon or Dacron Line (Inches)	Stainless Steel (Inches)
Under 16	75	3/8	5/16	1/2	1/4
16-19	150	3/8	5/16	1/2	1/4
20-22	200	1/2	5/16	5/8	1/4
23-25	250	1/2	5/16	3/4	1/4
26-30	300	5/8	3/8	3/4	1/4
31-35	400	5/8	3/8	3/4	1/4
36-40	500	3/4	1/2	7/8	3/8
41-50	600	3/4	1/2	1	1/2

- (2) The maximum length of the pennant should be two and one-half times the distance from the bow chock to the water plus the distance from the bow chock to the mooring cleat or post.
- (3) All pennant lines running through a chock or any other object where chafing may occur should have adequate chafe guards.
- (4) The total scope of the chain should be two and one-half times the depth of the water at high tide. The bottom and top chain should each consist of approximately 50 percent of the scope.
- (5) All shackles, swivels and other hardware used in the mooring hookup should be proportional in size to the chain used.
- (6) All shackles should be properly seized.
- (7) It is recommended that the pennant be spliced or shackled into the bitter end of the top chain below the buoy so the strain is not carried by the buoy. The use of a second pennant and anchor in heavy weather is encouraged.
- (8) Only mushroom anchors or individually approved alternatives will be acceptable on permanent moorings.

"This ordinance shall become effective fifteen (15) days after publication thereof in a newspaper having a circulation in the Town of Essex."