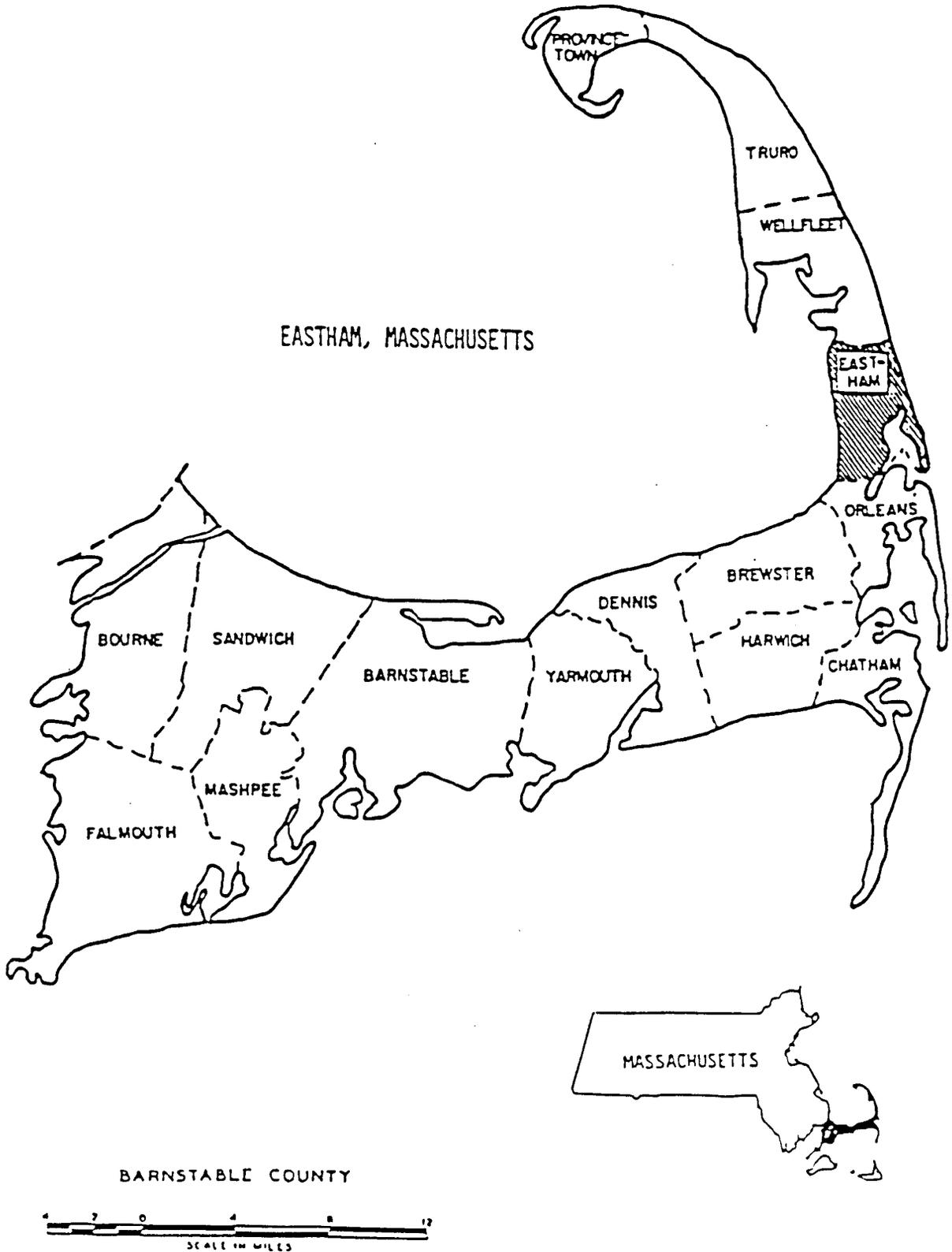


**EASTHAM, MASSACHUSETTS**  
**OPEN SPACE AND RECREATION PLAN**

MARCH 5, 1998  
(Revised February 10, 1999)

**FIGURE 1**  
**EASTHAM AND BOUNDARIES**



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## **SECTION I PLAN SUMMARY**

The Eastham Open Space and Recreation Plan represents the latest in a continuing series of management plans which have been developed by and for the citizens of the Town of Eastham beginning over a quarter century ago in 1971. At that time, the fledgling Cape Cod National Seashore had begun its work of shepherding large areas of the Lower Cape, and Eastham residents saw the need to follow suit in other areas of the town. With the purchase of Wiley Park, the citizens set a course to protect and maintain various areas of open space for the enjoyment of all as well as the preservation of special habitats for the native species of plants and animals which clearly were the first residents of the Narrow Land. This third edition of the planning document for enrichment of our town by the preservation of open space is a chronicle of the success of the previous efforts and the mapping of strategy for future goals.

This plan is the result of careful scrutiny, updating and revision by members of the Open Space Committee, a duly constituted standing committee of the Town of Eastham appointed by the Board of Selectmen. The committee began its work in the midst of ongoing Cape-wide discussion about the creation of a county-wide Land Bank, legislation which required county voter approval. (While the first proposal was defeated, a second, revised Land Bank plan was approved in November 1998, giving the town additional financial means by which to fund open space purchases.) Committee members adopted various sections of the previous plan and researched specific issues or updated details for discussion at open meetings. Various other committees were invited to provide input to the process and contributed specific details. Goals and objectives were outlined and solidified after discussion among the members and liaisons to the Board of Selectmen and other agencies. Finally, a list of criteria which help define what makes certain parcels of land valuable or unique for acquisition was adopted by the committee. This selection process will be used by the town meeting process to guide the decision process in regard to funding the purchase of open space lands.

The plan follows the general guidelines of the Massachusetts Division of Conservation Services for open space planning. Information about the natural history of the town, its land use, population, demographics and particularly ground water issues are reviewed in Sections III and IV. While a variety of reasons are commonly identified as critical for the adoption of open space planning, the concern about future clean water supplies usually tops the list. Recent information which has become available about Eastham's ground water and the potential outcome of its use or misuse are addressed in these sections.

Sections IV and V detail the special characteristics of Eastham which are attractive to its residents and visitors. These include such features as Areas of Critical Environmental Concern, Historical Areas, schools, recreational activities and parcels of open space which the town has acquired and offers for enjoyment through walking trails and passive recreational facilities. These details are described in narrative format together with various inventory tables, figures and illustrations to provide specific information about the nearly 80 sites which are under Town ownership. A large scale detailed map of the town illustrating the municipal lands as well as private open space parcels is included in the back cover of the publication.

Sections VIII and IX of the plan outlines the goals and objectives of the next five years. These goals are summarized in two statements:

- Encourage sustainable growth and development consistent with the carrying capacity of Eastham's natural environment
- Preserve and enhance the availability of open space in Eastham and protect wildlife habitat, recreation opportunities, and protect the natural resources, scenery and community character of the Town.

Each of these goals have an associated five year action plan which addresses the specifics of implementation. Chief among the tasks identified is the cooperative effort with other town agencies and committees to undertake specific actions and review and evaluate the results of the efforts.

The Open Space Plan concludes with a recommendation to develop and implement an ongoing land acquisition program based on six criteria. While not all six items need to be identified with each parcel in consideration, they define the general parameters and suggested importance of attributes which should be considered.

Properties that:

- Protect water quality; contribute to well-field protection district; provide accessory equipment sites for a potential water supply distribution system.
- Access the Chapter 61 tax abatement program: agricultural, forest, open space/recreation.
- Provide links to Cape Cod Pathways/Bikeways network; Capewide Greenbelt program where threshold criteria are met for wildlife habitat.
- Abut town conservation lands.
- Abut a body of water/marsh.
- Provide a potential town park, recreation or beach site.

It is the intention of the committee and the focus of this plan to provide a dynamic process of evaluating and implementing a successful strategy of land conservation which has been provided us by previous residents of the town. If we are able to carry on the tradition of good stewardship which has been shown to us, and encourage others to follow, then this effort will be a success.

Respectfully submitted,

Town of Eastham Open Space Committee

## SECTION II INTRODUCTION

### OPEN SPACE ACQUISITION FROM A LAND ETHIC PERSPECTIVE

The concept of a land ethic is not a new one. It is centuries old, having had its roots in ancient civilizations whose people believed that human beings were an extension of and owed reverence to the land which provided them with their very survival. This ethic was lost, however, with the advent of Western civilization and ensuing agriculture and industrialization.

More recently, conservationists, such as Rachel Carson, Justice William O. Douglas and Aldo Leopold have seen the need to revive and redefine this ancient concept because of our ever-increasing separation from, and indiscriminate use of, the land and its non-renewable resources, and pollution of the air, sea and land itself. Such a land ethic changes the role of the human being from conqueror/user of the land-community to mere member and citizen of it. It implies respect for all members and enlarges the boundaries of the community to include soils, water, plants and animals; collectively known as "the land." The concept also includes the idea that we must learn to live with and not off the land. The land ethic reflects the existence of an ecological conscience; a conviction of individual responsibility for the 'health' of the land.

The foremost land acquisition organization today, which began with a small group of concerned and dedicated activists, is the Nature Conservancy. One of their main goals is to make the designation of land as open space as economically and socially positive and favorable as possible. They have developed and implemented programs and alternatives regarding the financing and designation of open space, which continue to be tremendously successful. The key is to match protection incentives with the needs of property owners. Some of their programs are listed here:

1. Limited, leading to broader, acquisition purchases
2. Incentives to protect the land:
  - Notification effort: inform landowners that their property contains something very special (endangered flora, fauna, wetlands, etc.)
  - Registration: an effort to honor and recognize landowners who make a commitment to protection
  - Leases and management agreements that obligate landowners to manage their property according to specific terms for a prescribed period
  - Rights of first refusal: the Conservancy has the right to match any offer received for the land and to make the first offer

- Designation: set aside natural areas within own management units through previously existing programs
- Conservation easements: the Conservancy acquires selectively only those rights necessary to protect natural features of the land while allowing the landowner to retain title to the property
- Dedication: increase protection of previously owned areas by dedicating sites into a system of nature preserves that are safeguarded by state law from condemnation or conversion

From our own Cape Cod perspective, we will have to decide what we want the Cape to be -- for the present and more importantly, for the future. We must educate and sensitize the citizens of Cape Cod (and, in this case, Eastham) to the urgent need to acquire open space, and be willing to make all sacrifices necessary. Loss of open space begins with greed and insensitivity, leading to zoning boards and conservation commissions intimidated into granting far too liberal and numerous variances. We must become responsible stewards of our land and become dedicated protectors of it. We must work constantly to make land acquisition economically viable and to sensitize residents to the interconnectedness of land use/abuse, health hazards, and water quality.

Intellectual humility is the ability to see worth in land itself and for itself, and in the biotic community as a whole. All ethics rest upon the premise that the individual is but a member of a community of an infinite number of interdependent parts.

And as for ourselves, those already dedicated to these goals, we must realize that if we sincerely desire to change the attitudes and behavior of others, we must recognize that others are motivated more by the personal and group example we set than by dictums and pronouncements. If we want to influence the value judgements that others make, we can best do this by showing others examples of what we believe to be important and of what is indeed possible, and by looking at what we have done to our own immediate environment.

### **STATEMENT OF PURPOSE**

The overall aspiration of Eastham is to maintain as much of the remaining open space as possible for recreation (both passive and active) and to protect our fragile sole source aquifer.

### **PLANNING PROCESS AND PUBLIC PARTICIPATION**

In 1971, work commenced on an open space plan in conjunction with Eastham's purchase of the Wiley Park property. However, in 1984, many Eastham residents were concerned about the high extent of residential building in the town. Open space was vanishing and the natural habitat of native wildlife was being degraded. One more large 26.8-acre tract with a threat of 40 houses had been subdivided -- this adjacent to a recent

subdivision of 70 lots. The town became galvanized. A more comprehensive open space plan was developed over a period of ten months by a broad-based community committee of representatives of the Conservation Commission, Board of Selectmen, Planning Board, Recreation Commission, Natural Resources Department, Boy Scouts, Council on Aging, Historical Society, Eastham Elementary School, Eastham Non-Resident Taxpayers Association, Chamber of Commerce, and several unaffiliated citizens. Additional input came from the National Park Service. The finished plan contained pictures of open space concepts drawn by fourth grade students at the Elementary School, and the cover was a photograph by a member of the photography class of Nauset Regional High School.

A grant of \$900 from the Cape Cod Conservancy District was used for costs related to the compilation and printing of the plan.

Two mailings of questionnaires elicited citizens' comments. The first was sent to 300 residents; the second was a mailing to 100 non-resident taxpayers. In both cases, the numbers of respondents were surprising and showed that Eastham citizens welcome the chance to have input into the planning process. As these ideas were developed into goals and objectives, public informational meetings were held to acquaint the public with the committee's progress.

Because it seemed likely that an ever-increasing population using homes longer each year would put private wells in jeopardy, it became important to acquire as much land as possible, as soon as possible. Every vacant piece of land and every potentially subdividable piece of land was painstakingly identified and mapped. The next job was to inform and educate the voters to see that buying land for open space would protect the water supply.

The effort was a total success. The town voted on May 19, 1987, by a vote of 367 to 19, to purchase the property in question -- the Lamont Smith parcel -- which is now a nature preserve with trails, a pond and a safe habitat for all wildlife.

The original 1985 open space and recreation plan contained a five-year action plan (see Appendix E). Some of the actions envisioned in 1985 came to fruition: (1) purchase of the Lamont Smith property (mentioned above, and discussed on page 44); (2) purchase of the Horton property, bordering on two ponds, for open space and passive recreation (see page 44); and (3) passage of the legislation establishing the Cape Cod Commission as the land use regulatory agency for Barnstable County. The position of shared Town Planner, which was approved in cooperation with the Town of Wellfleet, was subsequently discontinued due to lack of funding. However, at this writing, the town has now secured the services of a full-time planner.

In early 1995, an update of the Eastham Open Space Plan was begun. A new questionnaire was distributed by the local comprehensive planning committee that showed the population is as interested as before in controlling growth. In the eleven years since 1984, more than 528 houses had been constructed in Eastham.

The immediate goal was to prohibit an approved subdivision of some 70 half-acre lots from being developed. This 63-acre parcel had been used as a "borrow" pit by a local sand and gravel company. A plan which subdivided the parcel into 73 half-acre lots was submitted to, and approved by, the Eastham Planning Board just prior to the upgrading of the zoning by-laws which increased the minimum lot size to one acre.

In May of 1995, development was imminent. The land was for sale. Despite the Cape Cod Commission having jurisdiction over a development of this size, the property owner had not filed a plan prior to entering into negotiations with the Town of Eastham to purchase this property.

An educational program with updated figures from the Open Space Plan was instituted to inform voters about the property. The Village Improvement Society 1995, a private group modeled on previous VIS committees, raised the money to pay for the two property appraisals needed. The figures and maps were updated to demonstrate the negative effect such a development would have on the quality of life in Eastham. The VIS '95 distributed flyers and fact sheets at post offices and businesses and held a public information meeting and two separate "walkabouts" at the property, all of which were well attended.

An informational meeting, postponed twice due to the weather, was held on January 17, 1996. A non-binding vote taken at the end of the meeting was heavily in favor of buying the property. On February 14, 1996, a vote to exclude the purchase price of \$1.2 million from the provisions of Proposition 2½ was passed by a vote of 746-439. The following day, Eastham citizens voted to buy the property at a Special Town Meeting by a vote of 212 to 73. (See Appendices A and B.)

## **SECTION III COMMUNITY SETTING**

### **REGIONAL CONTEXT**

Eastham is a strip of land lying across the base of the "outer arm" of Cape Cod. It is approximately 2-1/2 miles wide from east to west and four miles long from north to south. Bounded on the north by the Town of Wellfleet, on the south by the Town of Orleans, on the west by Cape Cod Bay and on the east by the Atlantic Ocean (Figure 1), it encompasses 14.25 square miles and has 37.4 miles of tidal shoreline. The Cape Cod National Seashore occupies the eastern portion with approximately one-third of the town lying within the Seashore boundaries.

One of the 15 towns in Cape Cod's Barnstable County, Eastham has an open Town Meeting form of government headed by an appointed Town Administrator and an elected, part-time five-member Board of Selectmen, all working under a Town Charter. Eastham is included in the 10th Massachusetts Congressional District, the Cape and Islands State Senatorial District and the 4th Barnstable District of the General Court. The Town elects a member to the Barnstable County Assembly of Delegates with a 2.39 weighted vote in that organization. Eastham also appoints a member to the Cape Cod Commission, the County's land use agency.

Eastham is a partner, with Orleans and Brewster, in the Tri-Town Septage Treatment Facility in Orleans and has reciprocal agreements with police and fire departments in neighboring towns. Eastham is also the home of Nauset Regional High School, which it operates in partnership with Wellfleet, Brewster and Orleans.

In Eastham, approximately one-third of employed residents work in town, approximately five percent work off-Cape and the remainder work in other towns on Cape Cod.

### **HISTORY OF THE COMMUNITY**

The Town of Eastham was incorporated in 1651 by authority of the General Court of Plymouth. Included within the town boundaries were what have become Orleans, Chatham, Wellfleet, and parts of Brewster and Harwich, as well as the present Eastham. Over the years, the other towns incorporated and separated from the "mother town" of Eastham. With the separation of Orleans in 1797, Eastham was left with its present boundaries.

In 1644, seven families (about 49 individuals) moved from Plymouth and became the first white settlers of an area inhabited by the Nausets, a band of the Wampanoags. The "Kingdom of Nauset" covered the Outer Cape and the Islands but the major Native American villages on the Cape were along the shores of the Town Cove and Nauset marshes. In 1646, the General Court gave permission for the community of settlers to organize as the "township" of Nauset. The name was changed to Eastham when the Town was incorporated in 1651.

## POPULATION CHARACTERISTICS

Eastham's population trends reflect the economic climate. Eastham's largest population prior to World War II was 966 in 1830. From that time it declined steadily until there were only 430 in the town in 1920 (see Table 1). The net rate of decrease was close to 3% per year; a large proportion of those who left were youths seeking opportunities elsewhere. After the First World War, population increased slightly and by the end of World War II was about 600.

In the post-war period, three factors had a dramatic impact on Cape Cod and Eastham. Rapid expansion of the nation's road system and automobile ownership put Cape Cod within one day's drive for more than 80 million people. In 1961 the National Seashore was established and quickly attracted many visitors, now averaging over five million per year. Because the Seashore occupies one-third of Eastham, there is additional development pressure on the remaining two-thirds of the town. Many retirees were attracted to the Cape, and the year-round, retired population contribution to the Cape's and Eastham's economy now exceeds that of tourism. Eastham's current population is about 4,800 and the seasonal population nearly another 20,000.

In order to adequately determine the needs and trends of Eastham, population statistics must be analyzed.

**Population Change:** Historic changes in Eastham are listed in Table 1.

In 1980, Eastham had a density of 244 persons per square mile. (Density is figured by dividing total square miles by total population.) Considering that approximately one-third of the town lies within the National Seashore, most of the growth since 1961 has occurred outside the National Seashore boundaries as will the projected growth. Current studies show that each year a number of seasonal homes become year-round residences for the owners.

**Population Composition:** Population composition is the distribution of the population by groups. Table 1 shows Eastham's age composition for the years 1970, 1980 and 1990, the age groups being birth to school, school age (5-19), employable age (19-59), retirement age (60-74), and 75 and older. Information on the economic and employment characteristics of the year-round population is shown in Tables 2 and 3.

**Seasonal Population:** It is difficult to accurately gauge the seasonal population as neither the federal nor state census covers this group. Peak summer population and projections, shown in Table 1, were compiled in June 1982 by the Cape Cod Planning and Economic Development Commission (CCPEDC). July was assigned as "peak summer" since municipal water records in other towns indicate that peak water usage occurs during July. Peak summer population consisted of the total of three different segments of the population: the year-round residents, the population in second homes who visit during the summer, and the population in non-dwelling accommodations (motels, campgrounds, and cottages).

The 1980 summer population was estimated at 18,292, an increase of 527% over the year-round population, raising the summer density to 1,284 persons per square mile. Of this 18,292, there is an estimated 12,845 second home population, increasing the average season from April to October.

When considering the open space, passive recreation, and active recreation needs for the Town of Eastham, the fact that during the time outdoor recreation is in demand the population of the town exceeds 18,000 must be taken into account; according to the U.S. Census of 1990, the summer population exceeded 21,800.

Additionally, the Cape Cod Chamber of Commerce estimates that about 15,000 persons per day come to the Cape (mainly to the beaches) during July, but do not stay in overnight accommodations. There is no method to determine how many of these "daytrippers" go to each town. Since 1964, according to National Park Service records, millions of people each year visit the National Seashore and Outer Cape communities. These visits are indicated on Table 6.

**Elder Citizens:** In the publications dealing with Open Space and with self-help programs, we see frequent references to "passive recreation" and "the preservation of areas in their natural state for the quiet enjoyment thereof." These descriptions were tailor-made for our older residents who represent approximately forty percent of our population.

Physical exercise is a part of the daily routine for many recent and older retirees. Activities such as walking on bike trails, nature trails and beaches, biking on the Rail Trail, golfing (not in Eastham), gardening, fishing, and shellfishing, are all included within the exercise package.

Eastham has an abundance of open space and naturally preserved areas between the National Seashore lands and past Town purchases. Any additional provisions to enhance these areas would be welcome to all. Specific programs which make use of the various facilities would be well attended by the general public, resident and non-resident alike.

TABLE 1

## POPULATION CHANGE

Year	Population	Change	% Change
1900	502		
1910	518	+ 16	+ 3.2%
1920	430	- 88	- 16.9%
1930	543	+ 113	+ 26.3%
1940	582	+ 39	+ 7.2%
1950	860	+ 278	+ 47.8%
1960	1,200	+ 340	+ 39.5%
1970	2,043	+ 843	+ 70.3%
1980	3,472	+ 429	+ 20.9%
1985	4,043	+ 571	+ 16.4%
1990	4,462	+ 419	+ 10.3%
1995	5,294	+ 832	+ 18.6%
2000	6,126	+ 832	+ 15.7%

## AGE COMPOSITION

Age Groups	1970	1980	1990	% Change: 1980-1990
0-4 years	128	178	255	43.3%
5-19 years	499	683	733	7.3%
20-59 years	839	1,686	2,074	23.0%
60-74 years	444	689	1,046	51.8%
75+ years	133	236	354	50.0%

Source: U.S. Census of population, 1970, 1980, 1990  
U.S. Census Bureau, compiled by Cape Cod Commission

## POPULATION PROJECTIONS\*

Projected Peak (July) Populations

Year	Winter	Second Home	Non-Dwelling	Total Peak	Peak Density
1980	3,472	12,845	1,976	18,293	1,284
1985	3,043	13,904	2,500	20,447	1,435
1990	4,632	14,391	2,800	21,823	1,531
1995	5,035	15,209	3,000	23,244	1,631
2000	5,212	15,958	3,100	24,270	1,703

\*Population estimates and projections for Barnstable County, 1980-2000, Cape Cod Planning and Economic Development Commission, June, 1982

TABLE 2

## SUMMARY OF SOCIAL AND ECONOMIC CHARACTERISTICS

A. Employment

Non-institutionalized persons, ages 16-64	2,615
Persons 16 and over in labor force (1981) +	1,387
Persons 16 and over in labor force (1984) +	1,941
Persons 16 and over in labor force (1990) +	2,030
Average unemployment rate (1981) ++	5.2%
Average unemployment rate (1984) ++	8.4%
Average unemployment rate (1992) ++	9.3%
Average unemployment rate (1993) ++	8.3%
Average unemployment rate (1994) ++	7.5%
Average unemployment rate (1995) ++	8.4% *

\*fifth highest in Barnstable County

B. Income

	1979	1981	1990
Per capita #	\$ 7,235	\$ 9,072	\$ 16,004
Household median ##	\$ 15,392		\$ 31,339
Family median	\$ 16,637		\$ 31,319

C. Residents with Income Below Poverty Level

Total persons (1990): 383 8.6% of all residents

+ Labor force is the total of the employed and the unemployed town residents.

++ Unemployment Rate is the percentage of the labor force that is unemployed (without a job but looking for work, waiting to be called back from layoff, or starting a new job within 30 days).

# Per Capita Income is determined by dividing aggregate income of a geographic area by the total number of its residents.

## Median Income represents the middle value in the income distribution, above and below which lie an equal number of values.

Source: A: Massachusetts Division of Employment and Training  
B & C: U.S. Census of Population

Compiled by the Cape Cod Commission

TABLE 3

**EMPLOYMENT AND WAGES IN ESTABLISHMENTS  
SUBJECT TO UNEMPLOYMENT COMPENSATION LAWS**

	1991	1992	1993	1994	1995
Total Annual Payroll	\$ 13,575,000	\$14,442,182	\$ 15,249,021	\$ 16,353,016	\$ 16,855,692
Average Annual Wage	\$16,356	\$17,011	\$17,467	\$18,583	\$19,154
Number of Establishments	153	148	149	149	152
Average Annual Employment:					
Government	152	157	171	166	151
Agriculture, Forestry, Fishery	28	25	26	27	21
Mining	C	C	C	C	C
Contract Construction	111	111	108	105	96
Manufacturing	C	C	C	C	C
Transportation, Communication	C	C	C	C	C
Utilities	C	C	C	C	C
Wholesale/Retail	304	295	297	321	333
Finance, Insurance, Real Estate	32	33	32	36	36
Services	198	206	230	217	230
<b>EMPLOYMENT TOTAL</b>	<b>830</b>	<b>849</b>	<b>873</b>	<b>879</b>	<b>880</b>

C = Confidential

Note: 1988 Average Employment was 946  
1994 Average Employment was 879  
(Total of 7% decrease)

Data Source: "Cape Trends," the Cape Cod Commission  
Department of Statistics, Massachusetts Division of Employment and Training

## GROWTH AND DEVELOPMENT PATTERNS

### PATTERNS AND TRENDS

The "First Comers" from Plymouth were attracted by the rich topsoil and heavily wooded, level terrain. They removed the trees and put the fields into wheat, corn and other crops which flourished in the one- to two-foot layer of humus that had been accumulating since the last glacier receded 10,000 years before. Eastham became known as the "bread basket of Massachusetts."

With the tree cover removed and the high winds that swept across the plains, this rich soil was depleted by the 1770's. When he made his walking trip across the Cape in 1850, Thoreau described the land as "white and yellow, like a mixture of salt and Indian meal, a substance which gives soil a poor name."

The impact on the town economy was devastating. The recovery of salt from ocean water in wooden salt works provided a revenue source for a few years, but that market faded when salt mines were opened in upstate New York in the early 1800's. The town, after Orleans withdrew in 1797, was left with no natural harbors on either coast. Men went to sea from other ports; the remainder of the population was reduced to subsistence farming and/or shellfishing. The introduction of cranberry bogs in the late 1800's and later the cultivation of turnips and asparagus helped, but life in Eastham from 1800 until after the First World War was one of marginal economic existence.

Today the problems in Eastham are quite different -- to plan for the inevitable continuing growth of tourism; to provide services to seasonal and retired residents; to provide the necessary facilities and to serve the expanded population while protecting and preserving the water resources (both recreational and potable); to preserve the scenic views and an attractive environment. We must, with stewardship, continue to provide that which attracts both visitors and residents to the Town of Eastham.

## INFRASTRUCTURE

### TRANSPORTATION SYSTEMS

Eastham is approximately 92 miles southeast of Boston, 127 miles east of Worcester, 92 miles east of Providence, Rhode Island, and 277 miles north of New York City. Access to the Cape from metropolitan Boston and areas north of Boston is by way of Interstates 93 and 95 (Route 128), Route 3 and Route 6 (the Mid-Cape Highway). Access from the Providence, Rhode Island, Hartford, Connecticut and the New York area is provided by Interstates 95, 495, and 195, and Route 6.

Efforts are being developed to more efficiently meet the transportation needs of the residents of Eastham.

**Bus:** The Plymouth & Brockton Bus Company has recently provided more scheduled runs within Eastham and improved their daily bus schedules in order to connect with bus service in Orleans, Hyannis, West Barnstable, Boston, and Logan Airport. Efforts continue to be made by Plymouth & Brockton to make additional improvements in their service.

The Cape Cod Transit Authority operates a service called the "B" bus. This is a "demand response" service and is available Mondays through Fridays to provide transportation for shopping needs and to nutrition sites, day care services, human services agencies and medical appointments. The transportation service is also provided to Boston for medical needs only.

The Eastham Council on Aging has two vans which are available to the elderly five days a week (Monday through Friday) and on the weekends strictly for emergency situations. One van provides service for social functions and shopping while the other van is used for medical needs (doctors and/or hospitals) on Cape Cod and/or to Boston as necessary.

**Air:** There are two municipal airports on Cape Cod; one is in Provincetown and the other in Hyannis.

**Train:** There is no train service in Eastham.

**Other Transportation Services:** Rental cars, limousines and taxi service are available if needed. Pedestrian and bicycle trails have been constructed and maintained within the Cape Cod National Seashore. The Cape Cod Rail Trail extends the entire length of Eastham. Cycling and walking are common on the local roads and along Route 6, causing concern for safety. The two trails are connected by a signed bicycle route along Locust Road. The primary transportation network for Eastham relates to its public highways. Route 6 is the major highway and traverses the entire town in a north-south direction. Areas to the west and east of this highway are well-served by many secondary roads. Thus, the major mode of transportation is by private automobile.

Areas that should be considered for improvement are as follows:

1. Establish services to Green International Airport in Providence, Rhode Island.
2. Provide Eastham residents with a summary of available transportation services.

## **WATER SYSTEMS**

All of the water which is used by homes or businesses is pumped by private wells or well serving a few residences. There are no municipal wells, and only a few homes near the Orleans town line are served by that town's public water supply. The result is that the quality of water which is used in Eastham homes is subject to the care and effects of the surrounding neighborhood on the water beneath the surface of the ground. As septic systems continue to impact the system and other additives are contributed through such events as oil spills, excess fertilization of soils, and the use of biocides, the quality of the water will be affected. Close examination of the quality of our drinking water is a high priority of the town, with an eye toward protecting the quality and quantity of our drinking water. The possibility exists that a municipal water supply system may be needed at some time in the future. To that end, several possible locations for a municipal well have been identified and zoning districts have been created to protect their characteristics.

It continues to be the belief of the town that the best strategy to maintain good water quality is to prevent contaminants from reaching critical water supplies rather than to attempt a cleanup of previously degraded areas. The Great Pond watershed zone project was undertaken to identify the potential contributors to the degradation of the surface water resources of Great Pond and others which offer a window on the well being of our drinking water. This study demonstrated clearly that the uncapped town landfill and former septage lagoon were potentially significant contributors to degradation of water quality in that zone. To that end, the landfill area has been capped (1996) and the tri-town septage plant has been established for the treatment of septage and the overall improvement of the on-site septic systems throughout the town.

Education and communication is vital to the successful achievement of the goal of protecting water quality. To that end, an educational forum was held in the spring of 1994. Entitled "Eastham 2000", the focus of the project was the dissemination of information on common issues relative to the resources of the town. Many residents have recently arrived from other areas of the country where such issues are not well understood or are as critical as they are here in a sole source aquifer. This type of communication is also vital to the effectiveness of various appointed volunteer committees which are responsible for planning and implementing the regulations of the town relative to water resources.

### **SEWER SYSTEMS**

Eastham does not have a municipal sewer system; septage disposal systems are all private, including cesspools and title V septic systems, which are a potential source of contamination to groundwater. Eastham is a partner in a Tri-Town Septage treatment facility, located in Orleans, and sends solid waste to SEMASS in Rochester.

### **LONG TERM DEVELOPMENT PATTERNS**

In 1951, Professor William P. MacConnell of the University of Massachusetts at Amherst began a project to classify individual land parcels throughout the state according to the land's use. With the aid of aerial photographs, MacConnell's team mapped many types of land uses under the following categories:

- a. Urban land
- b. Agricultural and open lands
- c. Water bodies and wetlands
- d. Forests

Professor MacConnell updated his maps in 1971 and 1980. These three dates allow comparisons to be made among the changes in uses of land in Eastham over a 30-year period. The Cape Cod Planning and Economic Development Commission assembled MacConnell's data to produce maps encompassing the entire county for the years 1951, 1971, 1985 and 1990 and has summarized the data.

### Observations:

In 1951, most development occurred along the coastline and in village centers.

By 1980, urban areas grew throughout the Cape, spreading inland from the coasts.

The number of acres developed for urban use on Cape Cod more than tripled between 1951 and 1980; however, urban land has increased close to 600% in Eastham.

Agricultural land has suffered the greatest decline in Eastham, from 1,579 acres in 1951 to only 20 acres in 1990. (See Table 4.)

Eastham extends east-west from bay coast to sea coast, is bounded on the south by Orleans and on the north by Wellfleet, a distance of about four miles. The town has no true center but much of the activity occurs at the town offices on Route 6 where the governmental, fire and police offices are located. Town offices face the venerable 300-year old Eastham Windmill on its green, a tourist attraction of considerable interest, attracting in excess of 25,000 visitors annually. Eastham still has two official millers.

North Eastham, with its separate post office, is about a mile and a half north of the town offices.

Eastham's zoning by-laws provide for six zoning districts, as follows: District A, residential; District B, marina uses; District C, industrial uses; District D, retail sales and services; District E, limited commercial development; District F, the Cape Cod National Seashore; District G, Water Resource Protection; and District H, Wellfield Protection (see Figure 5, Zoning Map).

Eastham business is mostly convenience stores, motels, gas stations and small home industries. North Eastham has two banks, nurseries, a flower shop, hardware store, gift stores, art studios, handicraft stores, book shop, candy store, health club, insurance and professional offices, used car sales, restaurants, electrical and plumbing suppliers, fuel oil dealers, a bakery, and construction industries. Present zoning laws are designed for some commercial growth to occur in North Eastham. Lot sizes for single family homes are 40,000 square feet but duplexes may be built on 80,000 square feet. Zoning by-laws upgraded lot sizes from 20,000 +/- and 30,000 +/- in 1988. About 4,863 of the available lots have buildings on them, and there are presently about 1,709 left, with very few parcels of land available for further subdividing. Sixty building permits for new buildings were issued in 1994, 62 in 1995, 75 in 1996, 97 in 1996, and 113 in 1998.

About 4,800 acres of Eastham are within the Cape Cod National Seashore. The Town owns 636 of those acres, and 128 are designated for recreational use. The tract containing these acres is one of the few areas of town that has been shown by engineering studies to be suitable for a recharge area. One hundred eighty acres outside the National Seashore have been set aside for recreation. The Lamont Smith and Horton properties are used for open space and for walking and hiking. Wiley Park, 44 acres, is

jointly administered by the Recreation and Conservation departments. Summer swimming lessons take place here, and a herring run enters the Great Pond located within the park. The town owns 13 landing/beach areas and two beaches not used as landings. Three of the landings are on fresh water ponds (motor boats are permitted on two); the others are on the bay side. Eastham residents share National Seashore facilities with the rest of the world.

Most of the town's landings and beaches require seasonal parking permits. (See the Inventory of Conservation, Recreation and Historic Sites which follows for those areas requiring stickers.) Beach permit sales for the calendar year 1997 were as follows:

Taxpayer (free) stickers	8,165	--
1-week visitor	1,960	\$ 26,130
2-week visitor	465	\$ 13,535
Seasonal visitor	105	\$ 5,190
Daily attendance	9,387	\$ 46,935

(Compiled by Henry Lind, Eastham Natural Resources Officer)

Eastham's tidal flats serve as a recreational asset at low tide when people of all ages venture out on them to wade, build sand castles, hunt for shells, play ball, and explore the tidal pools. The flats are a particularly good place for young children to play because there is little chance they can get hurt, and they can explore to their heart's content.

Building is occurring all over Eastham and North Eastham. Although Eastham is fortunate to have some open space left, as compared to other towns, the residents perceive the town as subject to too much growth and a sampling shows they are very much interested in acquiring more land to be preserved and conserved, especially for water protection.

Every new house built and occupied increases the amount of traffic, septage and solid waste generated, increases the amount of school and cemetery space needed, increases the need for fire and police protection and increases the use of recreational facilities. Eastham voters face tough decisions about zoning their land, protecting their resources, disposing of their waste and spending their money.

It is unclear how much growth Eastham can absorb before tourists and residents alike will no longer tolerate the frustrations that are resulting from unplanned growth.

TABLE 4

## SUMMARY OF EASTHAM LAND USE CHANGES

Land Use Type (in acres)	1971	change	1985	change	1990
AGRICULTURE	47	- 10	37	- 17	20
CRANBERRY BOGS	4	0	4	0	4
OPEN LAND	758	- 88	670	- 78	592
WETLAND	1,630	+ 22	1,652	+ 54	1,706
FOREST LAND	4,141	- 795	3,346	- 526	2,820
DISPOSAL	43	+ 23	66	+ 20	86
RECREATION	196	- 9	187	+ 3	190
URBAN LAND	2,362	+ 910	3,272	+ 574	3,846
<b>TOTALS</b>	<b>9,181</b>	<b>53</b>	<b>9,234</b>	<b>30</b>	<b>9,264</b>

AGRICULTURE encompasses land used for crops and pasture, orchards and nurseries.

OPEN LAND includes abandoned fields and orchards, utility rights of way, open sand areas (beaches not included) and sand areas supporting low vegetation.

WETLAND includes ponds, streams, freshwater wetlands and salt marshes.

FOREST LAND represents both softwood and hardwood forests of varying height, density and species.

DISPOSAL encompasses sand and gravel operations as well as sanitary landfills and sewage treatment plants.

RECREATION represents four (4) categories of outdoor recreation:

- (1) *water-based* (marinas/boatyards, freshwater/saltwater sandy beaches, swimming pools);
- (2) *spectator* (athletic fields, amusement parks, fairgrounds, drive-in theaters);
- (3) *participation* (tennis courts, golf courses, golf driving ranges, archery ranges, playgrounds and ski areas);
- (4) *environmental* (urban parks).

URBAN LAND encompasses industrial and commercial land, densely populated areas, and any areas with "a large number of people living and working in closely ordered structures in an confined land space."

Data Sources: MASS GIS Resource Mapping  
Dept. of Forestry and Wildlife, University of Massachusetts/Amherst, 1990

## **SECTION IV ENVIRONMENTAL INVENTORY AND ANALYSIS**

### **GEOLOGY, SOILS AND TOPOGRAPHY**

Cape Cod owes its existence to glacial deposits derived from the last ice sheet which moved over southeastern New England. Glauconite, fossil material, and the sparsity of feldspar in the glacial sand suggest that the ice sheet overrode coastal plain and shelf sediments of Pleistocene and pre-Pleistocene age before reaching Cape Cod.

During deglaciation of southern New England, the topography of the continental shelf played a major role in determining the pattern of ice retreat. Major lobes formed in the relatively shallow basins on the shelf.

When the Cape Cod Bay lobe had retreated to approximately the present south shore of Cape Cod Bay, the Harwich outwash plain deposits were laid down. The great extent of the outwash plain and the Sandwich moraine indicate a major standstill during the deposition of these features (Mather, et al, 1942).

The glacial deposits on outer Cape Cod, including the Nauset Heights outwash and Eastham plain outwash were deposited after the Harwich outwash deposits. During this time, the Cape Cod Bay lobe was either depositing ice-contact lacustrine sediments north of the ice-contact head of the Harwich outwash plain or it was retreating across Cape Cod Bay. West and southwest surface gradients on the Eastham plain and the outwash plains further to the north indicate they were deposited by meltwater draining the South Channel lobe (Oldale, 1968; Koteff et al, 1967).

Till interbedded with and overlying the Nauset Heights outwash deposits may have been deposited during re-advances of the Cape Cod Bay or South Channel lobes, or as flowtills.

Retreat of the ice away from the ice-contact head of the Harwich outwash plain caused the development of a preglacial lake between the retreating ice front and the glacial deposits to the south. The lake eventually occupied most of Cape Cod Bay.

During the deposition of the sediments on outer Cape Cod, which include the Wellfleet plain, Truro plain, and Highland plain deposits (Koteff, et al, 1967; Oldale, 1968), the Cape Cod Bay lobe retreated northward in Cape Cod bay to drain eastward through Town Cove which resulted in a lake stage lower than present sea level. Meltwater streams draining the ice near Nauset Beach Lighthouse deposited the Eastham plain deposits. Older sediments of the Eastham plain were deltaic and graded to the low stage of the lake. All the deposits above sea level and fluvial; they were deposited by streams that flowed westward and eventually eastward between the ice-contact head of the Nauset Heights deposits and ice that occupied the marsh filled embayment south of Nauset Bay. Continued northward retreat of both lobes terminated glacial deposition and, when the ice lobes had retreated north of High Head (Truro), the lake in Cape Cod Bay drained completely.

Direct effects of glaciation on Cape Cod ceased about 14,000 years ago when the ice had retreated some distance north of Boston (Kaye and Barghoorn, 1964). Eustatic sea level was about 400 feet below its present level (Edmary and Garrison, 1967), and the ocean was ten or more miles from the present shoreline. With the waning of glaciation, water previously trapped in the ice melted, resulting in a rapid rise in eustatic sea level. Approximately 6,000 years ago, marine waters reached the vicinity of Cape Cod (Ziegler et al, 1965), and extensive erosion of glacial deposits occurred. The shoreline reached its present position in relation to the glacial deposits about 3,500 years ago (Redfield, 1965). (See Figure 2.)

Sea cliff erosion of glacial deposits provided sediment for the growth of spits. North of Nauset Bay and First Encounter Beach where spits had not developed, the glacial deposits in the sea cliffs are being eroded by waves. The average rate of erosion along the Atlantic shore is about 3.1 feet per year (Ziegler et al, 1964); along the Cape Cod Bay shore it is somewhat less. Major changes in the shoreline resulting from erosion and deposition occur primarily during storm events coupled with "Spring" tides.

When erosion threatens structures which are not easily relocated, such as the numerous cottages along the Cape Cod Bay cliffs, property owners have sought to stabilize the bank with engineered structures such as bulkheads or revetments. The net effect of these structures is to reduce the amount of sand available to the beach and consequently the barrier beaches at Sunken Meadow and First Encounter. Various alternatives have been utilized, such as nourishment using sand from inland sources, "soft" solutions using sand bags, and vegetative cover.

The alignment of the seaward shore of Nauset Beach and the cliffs cut in the glacial deposits to the north suggest that the shoreline is retreating westward at a constant rate. Material eroded from the glacial deposits is transported by waves and currents and deposited at the distal end of the spits as shoals or beach deposits. During storms the seaward shore of the spits is eroded and beach deposits are deposited several feet above normal high tide. Locally, storm waves cut channels (storm sluices) through the spits and dunes, carrying material into the lagoon where it is deposited as overwash fans which revegetate in succeeding seasons.

Recent changes in the offshore sand bars near Nauset Light Beach have resulted in accelerated erosion. As a result, the lighthouse structure was in danger of collapsing into the sea. A coordinated effort of private citizens, the Cape Cod National Seashore and the U.S. Coast Guard provided for the safe removal of the structure to a more landward location in the fall of 1996.

Erosion along the dune at Coast Guard Beach in 1992 revealed artifacts of an encampment. A team of National Park Service archaeologists completed a detailed examination of the site over a period of 10 months and documented much valuable information about the inhabitants some 8,000 years ago.

Freshwater peat deposits probably began to develop in kettle holes and stream valleys shortly after deglaciation. Poor drainage in the sandy deposits was caused by permafrost, and altered by the rise in the water table resulting from postglacial rise in sea level. Salt water peat deposits probably began to develop about 6,000 years ago in kettle holes submerged by the rise in sea level. Extensive salt marsh deposition followed the growth of spits that provided sheltered lagoons.

The climatically associated soils on Cape Cod are podzols. Their existence in this less than normal hostile climate is due to the porosity of the glacial material and the rapid leaching associated with it.

The remaining sediments that are characteristic of the Eastham area are interior and coastal sands deposited by wind actions either along the present coast and associated with wave action or those sands associated with direct glacial deposition. Wet sediments found in and near salt marshes and freshwater swamps are also quite prevalent, particularly in southern and coastal Eastham areas. (See Figure 3 and Table 5.)

### **LANDSCAPE CHARACTER**

Eastham is the first town past the Orleans Rotary and the first of the four more rural towns of the Lower Cape (Eastham, Wellfleet, Truro and Provincetown). The character of the landscape of this area of the Cape is its most distinguishing feature. The town is composed of a variety of landforms from marshes, bogs and miles of shoreline to woodlands creating spectacular scenic vistas and miles of wooded trails to explore. Areas of particular significance include Wiley Park and the Nickerson Property, two open spaces surrounding a portion of Great Pond, and Boat Meadow.

These scenic vistas and woodlands can be easily impacted by the continued development of adjacent private parcels causing changes in use patterns.

### **WATER RESOURCES**

Eastham's water is withdrawn from the Nauset Lens of the Cape Cod aquifer, which is the product of only a single source -- rainfall. All of the precipitation which falls on Eastham's landform is stored beneath the ground and pumped by private wells. The various parts of the Cape contain separate regions of this underground "puddle" and they are generally isolated from one another. The Nauset Lens is shown in Figure 4C and covers all of Eastham and part of the town of Wellfleet. As a rule, the direction which water flows underground is from the central part of the landform toward the ocean or bay, and this is no different with the Nauset Lens. The circular contours represent different heights of the water table above a reference level of mean sea level, and the water flows from the higher elevations toward the lower levels. (See Figures 4A, 4B, 4C, and 4D.)

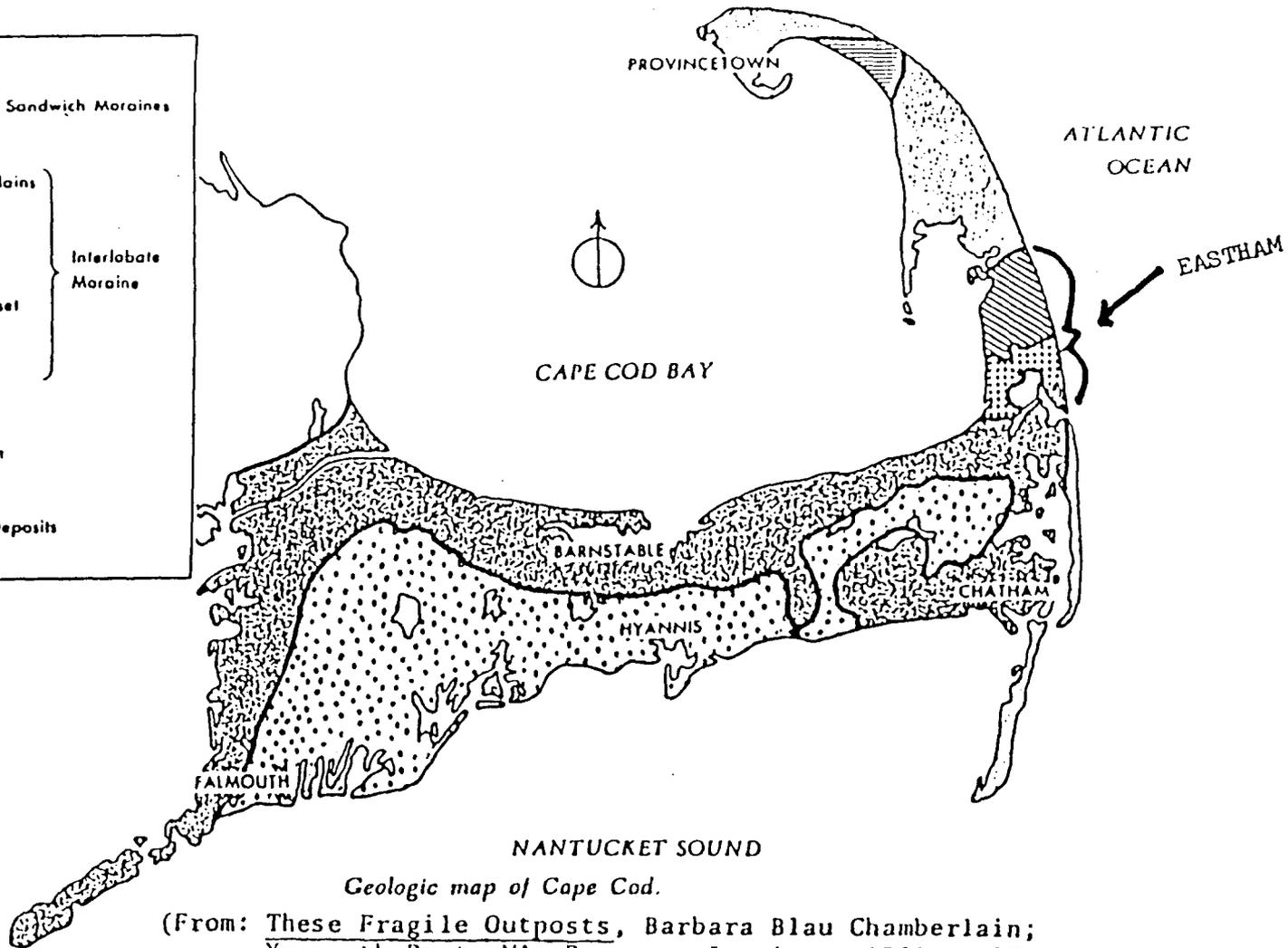
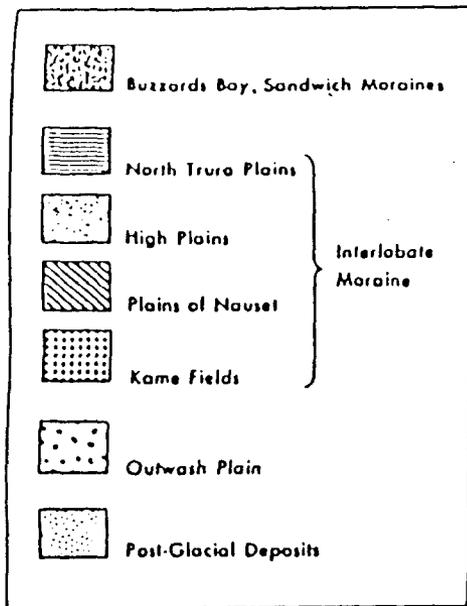
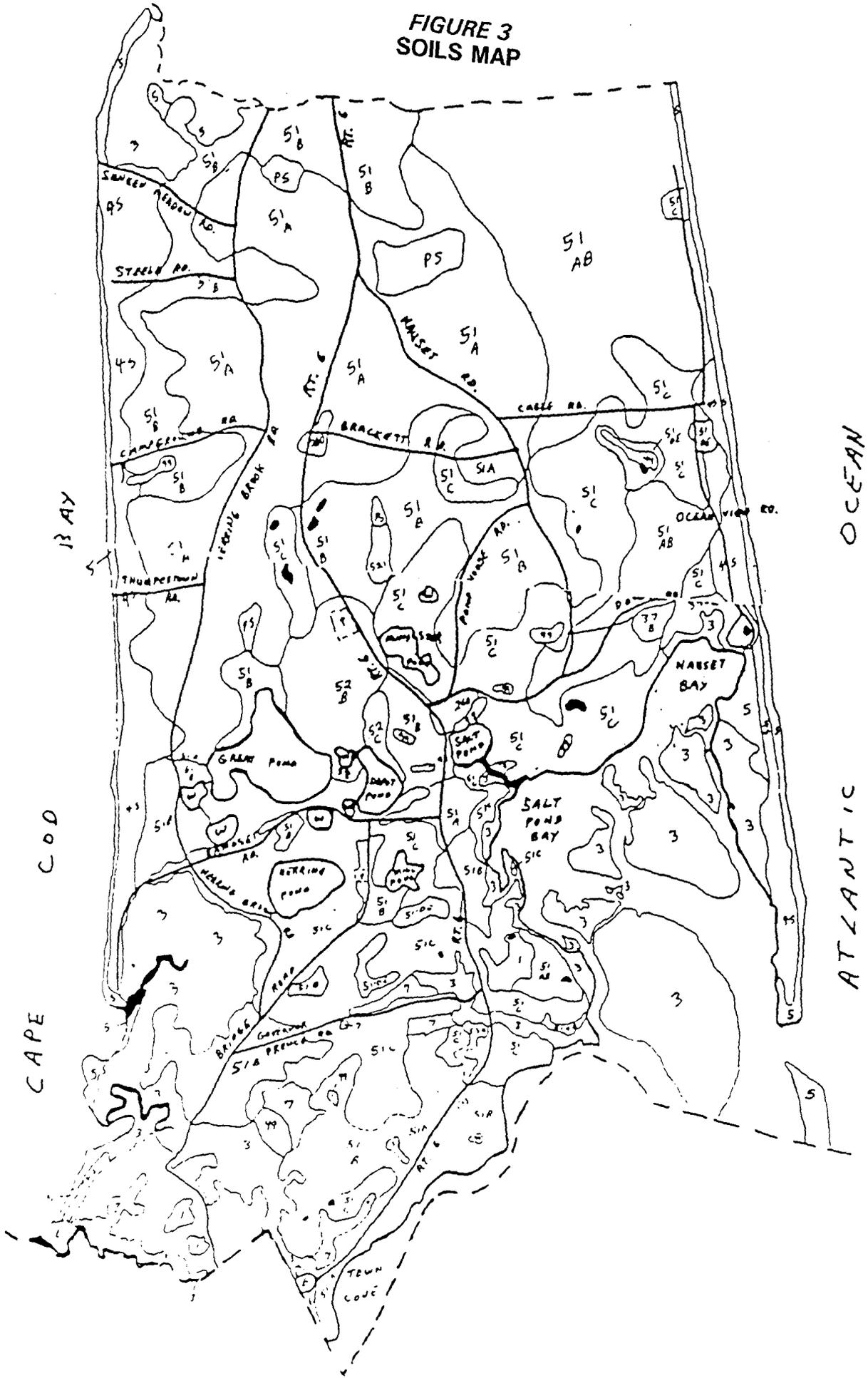


FIGURE 2  
GEOLOGIC MAP OF CAPE COD

*Geologic map of Cape Cod.*  
 (From: *These Fragile Outposts*, Barbara Blau Chamberlain;  
 Yarmouth Port, MA: Parnasus Imprints, 1981, p.97;  
 originally published in 1964.)

FIGURE 3  
SOILS MAP



**TABLE 5  
SOIL LIMITATIONS FOR SPECIFIC URBAN LAND USES**

Map Symbol	Field Soil Name	Sanitary Facilities - Septic Tank Absorption Fields	Sanitary Landfill (Trench)	Buildings Dwelling Type w/o basements	Local Roads & Streets	Picnic Areas	Paths & Trails
1	Freetown and Swansea mucks	Severe wetness	Severe - wetness, seepage	Severe wetness	Severe wetness	Severe wetness	Severe wetness
3	Ipswich and Pawcatuck muck, peats	Severe floods	Severe - ponding, floods, seepage	Severe floods	Severe	Severe	Severe
4	Udipsamments - dune land complex steep	Severe-poor filter	Severe - seepage, too sandy	Severe slope	Severe slope	Severe too sandy	Severe too sandy
4S	Udipsamments, sloping	Severe-poor filter	Severe - seepage, too sandy	Severe slope	Severe slope	Severe too sandy	Severe too sandy
4T	Udipsamments, steep	Severe-poor filter	Seepage, too sandy slope	Severe slope	Severe slope	Severe too sandy	Severe too sandy
5	Beaches	Severe floods	Severe floods	Severe floods	Severe floods	Severe floods	Severe floods
6	Udipsamments, smooth	Severe-poor filter	Severe - seepage, too sandy	Slight	Slight	Severe too sandy	Severe too sandy
7	Freetown coarse sand	Severe wetness	Severe - wetness, excess humus, seepage	Severe wetness	Severe wetness	Severe wetness	Severe wetness
28-B	Woodbridge fine sandy loam, 3 to 8 percent slopes	Severe, percs slowly, wetness	Severe - wetness	Moderate wetness	Moderate wetness	Moderate percs slowly, wetness	Moderate wetness
37-B	Merrimac fine sandy loam, 3 to 8 percent slopes	Severe-poor filter	Severe - seepage, too sandy	Slight	Slight	Slight	Slight

TABLE 5, continued  
SOIL LIMITATIONS FOR SPECIFIC LAND USES

Map Symbol	Field Soil Name	Sanitary Facilities - Septic Tank Absorption Fields	Sanitary Landfill (Trench)	Buildings Dwelling Type w/o basements	Local Roads & Streets	Picnic Areas	Paths & Trails
37-C	Merrimac fine sandy loam, 8 to 15 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Moderate slope	Moderate slope	Moderate slope	Slight
51-A	Carver coarse sand, 0-3 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Slight	Slight	Severe, too sandy	Severe, too sandy
51-AB	Carver coarse sand, 0 to 8 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Slight	Slight	Severe, too sandy	Severe, too sandy
51-B	Carver coarse sand, 3 to 8 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Slight	Slight	Severe, too sandy	Severe, too sandy
51-C	Carver coarse sand, 8 to 15 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Moderate	Moderate slope	Severe, too sandy	Severe, too sandy
51-DE	Carver coarse sand, 15 to 35 percent slopes	Severe-poor filter, slope	Severe-seepage, too sandy	Severe slope	Severe slope	Severe slope too sandy	Severe slope too sandy
52-B	Windsor loamy sand, 3 to 8 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Slight	Slight	Slight	Slight
52-C	Windsor loamy sand, 8 to 15 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Moderate slope	Moderate slope	Moderate slope	Slight
54-A	Deerfield, loamy coarse sand, 0 to 15 percent slopes	Severe-poor filter	Severe-seepage, too sandy	Moderate slope	Moderate wetness	Moderate wetness, too sandy	Moderate too sandy
55-A	Pipestone, loamy, coarse sand, 0 to 3 percent slopes	Severe wetness poor filter	Severe-wetness, seepage, too sandy	Severe wetness	Severe wetness	Severe wetness	Severe wetness

TABLE 5, continued  
**SOIL LIMITATIONS FOR SPECIFIC URBAN LAND USES**

Map Symbol	Field Soil Name	Sanitary Facilities - Septic Tank Absorption Fields	Sanitary Landfill (Trench)	Buildings Dwelling Type w/o basements	Local Roads & Streets	Picnic Areas	Paths & Trails
56-A	Saugatuck sand, 0 to 3 percent slopes	Severe wetness	Severe-seepage, ponding, too sandy	Severe wetness	Severe wetness	Severe wetness	Severe wetness
99	Freetown muck, ponded	Severe ponding	Severe-ponding	Severe ponding	Severe ponding	Severe ponding	Severe ponding
122-B	Paxton fine sandy loam, 0 to 3 percent slopes	Severe percs slowly	Severe-wetness	Moderate wetness	Moderate wetness	Moderate wetness	Slight
186-A	Birdsall silt loam, 0 to 3 percent slopes	Severe wetness	Severe-wetness	Severe wetness	Severe wetness	Severe wetness	Severe wetness
231-D	Carver very stony coarse sand, 15 to 25 percent slopes	Severe-poor filter slope	Severe-seepage, too sandy, slope	Severe slope	Severe slope	Severe slope too sandy	Severe too sandy
260	Urban land	NOT RATED					
521	Sanitary Landfill	NOT RATED					
PS	Pits, sand	NOT RATED					

**FIGURE 4A**  
**LOCATION OF FOUR GROUND WATER LENSES OF THE CAPE COD AQUIFER**

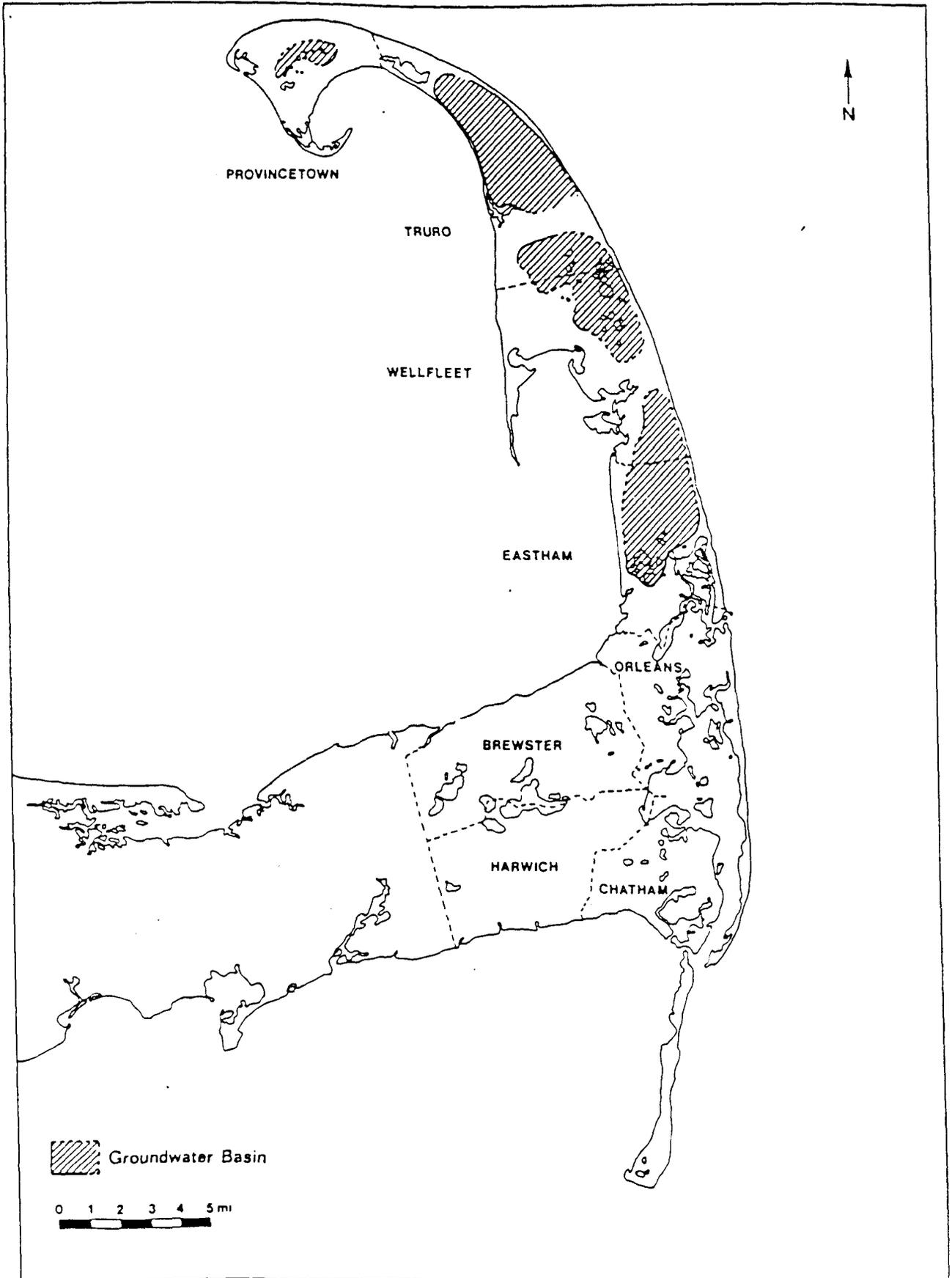
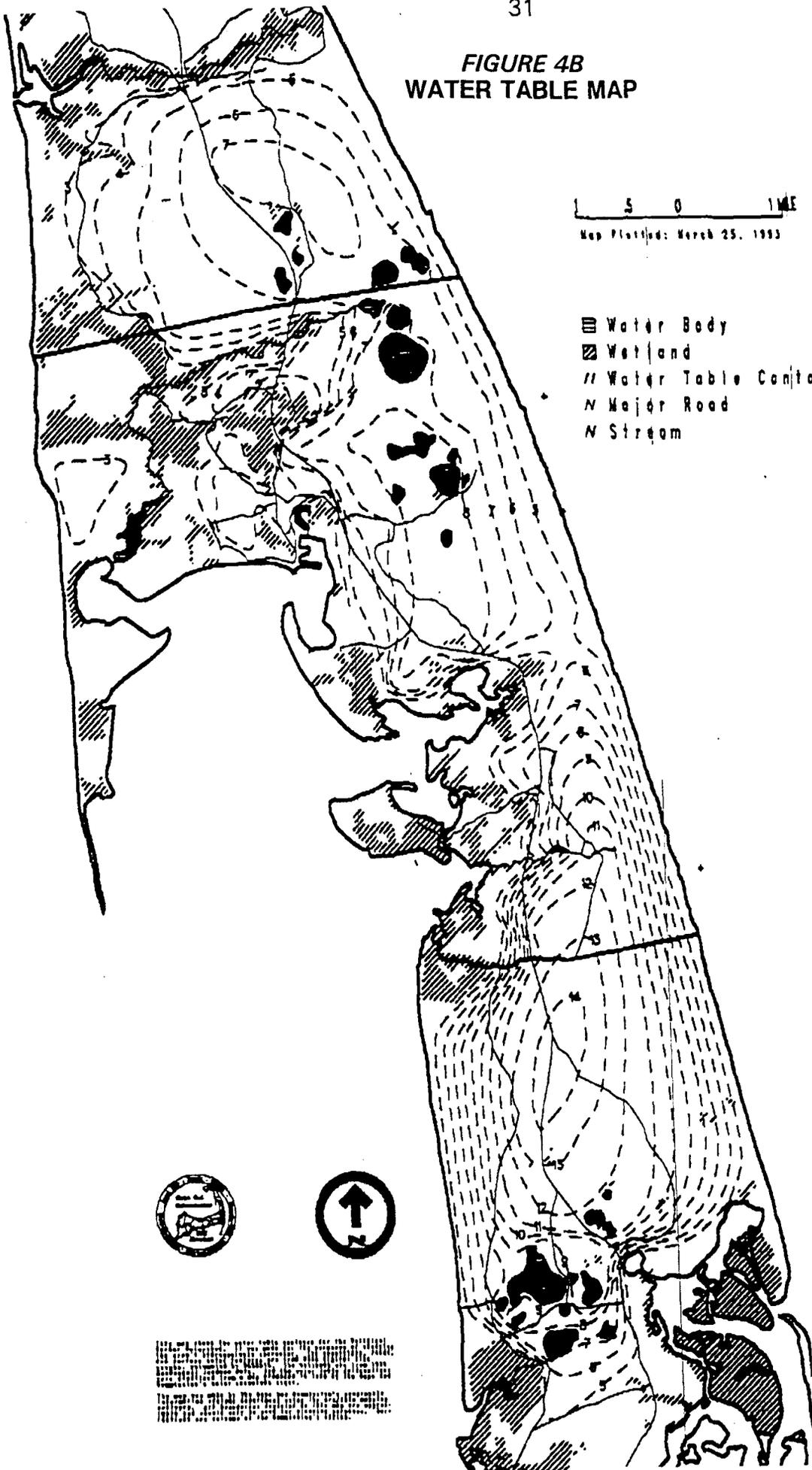


FIGURE 4B  
WATER TABLE MAP



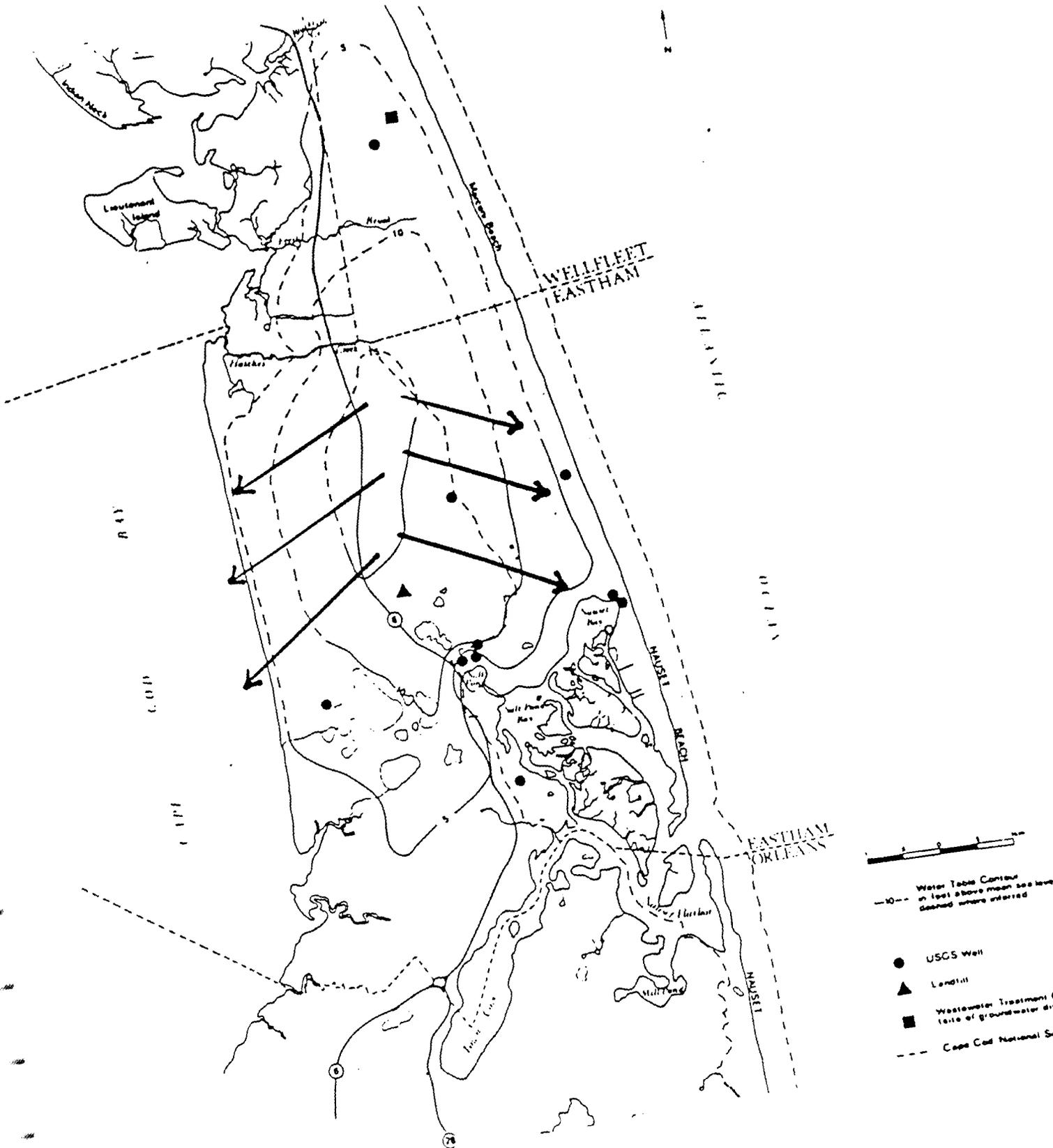
1 5 0 1 MILE  
Map Plotted: March 25, 1993

- ☐ Water Body
- ▨ Wetland
- - - Water Table Contour
- N Major Road
- N Stream

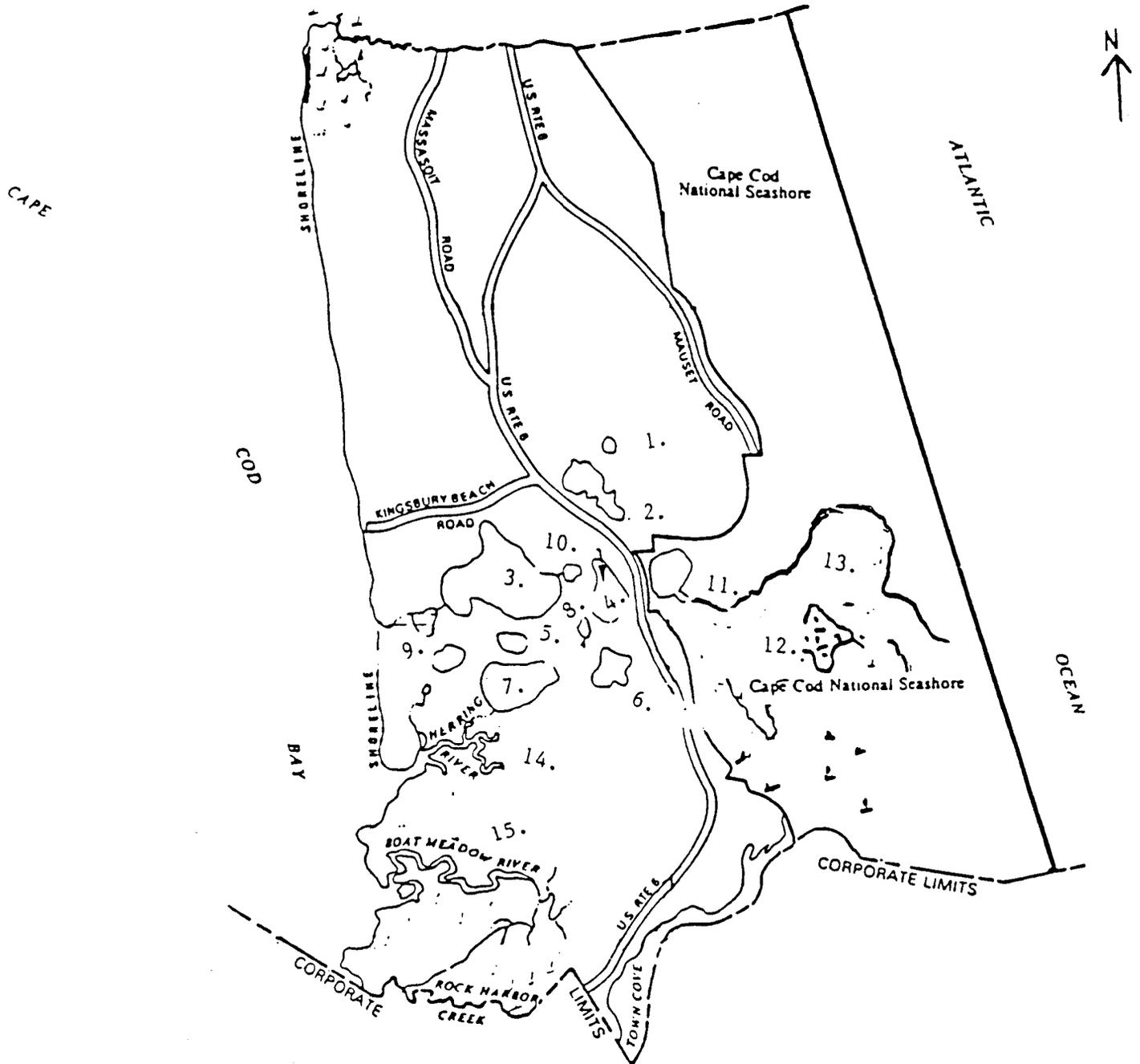


Small, illegible text block at the bottom left of the map area.

**FIGURE 4C**  
**EASTHAM GROUND WATER LENS AND GROUND WATER FLOW**



**FIGURE 4D**  
**SURFACE WATER BODIES**  
 (not to scale)



- |                  |                       |                       |
|------------------|-----------------------|-----------------------|
| 1. Molls Pond    | 6. Muddy Pond         | 11. Salt Pond         |
| 2. Minister Pond | 7. Herring Pond       | 12. Salt Pond Bay     |
| 3. Great Pond    | 8. Depot Pond         | 13. Nauset Bay        |
| 4. Long Pond     | 9. Widow Harding Pond | 14. Herring River     |
| 5. Jemima Pond   | 10. Deborah's Pond    | 15. Boat Meadow River |

## VEGETATION

Eastham's original forest was stripped in the early years of the area's settlement. With soil depletion from agricultural activities and wind action in exposed areas, along with frequent forest fires and repeated cutting, regrowth of most species has been inhibited. The present forests of the Cape are classified as pine-oak climax forests. The oak species most common include scrub oak, white oak, red oak and pin oak. The most prevalent pine variety is the pitch pine, which dominates this area characterized by poor dry soils.

In addition to the forested areas, Eastham is also characterized by freshwater wetland and salt marsh vegetation.

The salt marsh exhibits definite zones in the arrangement of its plant species. The limits of the marsh zones are determined by plants' responses to varying salinity and the frequency of tidal flooding. This zonation is most easily seen in the occurrences of the marshes' two most dominant plant species: the coarse, broad-leafed salt marsh cord grass (*Spartina alterniflora*) along the edge of the water, and the smaller salt meadow cord grass (*Spartina patens*) common to the largest and intermediate sections. Bordering the upper zone between high marsh and land vegetation is seaside goldenrod, blackrush and panic grass. Higher marsh ground that receives influxes of fresh water is colonized by cattails and phragmites.

Swamps and bogs, whose primary species are red maple, black tupelo, gum, adler, arrow wood, high bush blueberry, willows and milkweed, are found further inland.

### Plants:

PLYMOUTH GENTIAN (*Sabatia kennedyana*) -- the tall, branched flowering stalk rises out of a basal rosette of oblanceolate leaves. The terminal pink flowers have one to ten petals and a yellow center fringed with red. It blooms in August and September. Found only on sandy to peaty beach margins of some kettlehole ponds of the coastal plain, it occurs predominately on gently-sloping north and west shores. The water level of the ponds must fluctuate periodically to inundate the margins and stop invading shrubs.

This species is rare throughout its limited, disjunct range and the New England Botanical Club considers it rare in New England (*Rhodora*, 1981). It is known only from small areas of southern Nova Scotia, Massachusetts, Rhode Island, North and South Carolina. Plymouth Gentian is on the rare and endangered species lists of all of these places. It does not occur in intervening areas.

The cause of rarity is development and the limited range of the species. Recreational use of ponds on the coastal plain leads to trampling and destruction of this habitat. Pond contamination from run-off and faulty septic systems is also a problem.

BUTTERFLY-WEED (*Asclepias tuberosa* L.) is a tall (3 - 9cm) pubescent plant with large linear-to-oblong leaves growing singularly on the stem. Unlike most milkweeds, it does not have milky juice. Butterfly-weed has bright orange flowers arranged in terminal umbels, which, in August, are conspicuous in their moorlike habitats, and most often found in small localized populations.

COMMONS' PANIC GRASS (*Panicum commonsianum* Ashe) is a short (20 - 50mm), tufted perennial grass that is found in small clumps with several spikelets. This grass flowers and fruits twice each year in the spring and fall.

Growing in dry sandy soil of the coastal plain, it is found in dry oak woods, spottily distributed in openings in the ericaceous ground layer, colonizing disturbed soil within the forest where there is little or no litter.

It is at the northern edge of its range in Massachusetts, and destruction of its habitat by residential and commercial development has caused its rarity.

PRICKLY PEAR (*Opuntia humifusa*) is the only cactus widespread in the East. It grows in clumps and has flat fleshy green pads covered with clusters of short reddish-brown barbed bristles. The flowers bloom from the tops of the pads and are large and showy. The large red fruits are juicy, sweet and edible.

In Massachusetts, Prickly Pear grows usually in dry sandy fields and stabilized dunes, often in association with poison ivy and red cedar. Considered rare by the New England Botanical Club, it is listed as rare in Massachusetts where it is at the northern limit of its natural range. People transplant this unusual plant to their gardens, adding to the cause of its rarity.

BUSHY ROCKROSE (*Helianthemum dumosum*) is a very low shrub-like plant that produces flowers in May and June that are borne in small clusters at the end of elongated branches. Small pinkish asexual flowers appear later on in the season. Bushy Rockrose prefers dry sandy plains with sparse herb layers and is often found in bearberry-huckleberry bayberry-shortgrass moors.

Considered for federal listing as threatened and endangered, it is considered rare in New England by the New England Botanical Club and is listed as rare throughout its range. Ninety percent of the known occurrences for this plant are in Massachusetts. A decrease in grazing and fire disturbance followed by forest succession has limited the available habitats for this plant. Bushy Rockrose has a very limited total range and many older stations have been destroyed through development.

BROOM CROWBERRY (*Corema conradii*) is a low evergreen shrub with dense tufts consisting of diffusely branched stems covered with small linear leaves. Broom Crowberry blooms in April and May with purple flowers.

Broom Crowberry is found in open moors and heath lands on the coastal plain. It prefers dry sandy soil and is often found in areas that have been grazed.

It is considered rare in New York and New Jersey as well as Massachusetts. The species has been crowded out and shaded, as shrubs, scrub oak and pitch pine become established in moorlike habitats due to fire suppression and the cessation of grazing.

## WILDLIFE

An unusually diverse array of coastal habitats provides for a correspondingly high diversity of coastal organisms. Outer Cape Cod, although somewhat isolated from the mainland, nevertheless attracts many "mainland" birds and mammals, and is especially important to migratory species. In addition, its unique geographical position and ocean-moderated climate are in part responsible for the presence of many plants and animals at the limits of their geographical range. A newcomer to the area, Eastern coyote populations have become well established in Eastham within the past ten years.

Wetlands and wetland-dependent flora and fauna predominate. Most important game animals, as well as "passively" enjoyed songbirds, raptors, colonial waterbirds, reptiles, amphibians and of course fish, depend on wetland habitats for food and cover. Coastal swamps, marshes and wet meadows are habitat for deer, muskrat, raccoon, red fox, cottontail rabbits, woodcock, and migratory waterfowl. The shrubby borders of coastal marshlands and kettlehole swamps provide outstandingly good feeding and nesting cover for songbirds and small mammals. In addition, the beneficial contribution of organic detritus from these coastal marshes to estuaries and near-shore marine systems is well appreciated (John Portnoy, NPS).

Several agencies are compiling and updating information on rare, threatened, or endangered species, and many local people provide information to these agencies based on extensive local observation. Scientific staff of the Cape Cod National Seashore monitor rare species within the Park. The U.S. Fish and Wildlife Service conducts field investigations on nationally significant species. The Massachusetts Natural Heritage Program (Department of Fisheries and Wildlife) maintains an ongoing inventory of rare, threatened and endangered plants and animal species, as well as the geographic locations of critical ecosystems. To prevent inadvertent damage to populations and/or habitat through visiting or collecting, specific locations are not included in this document.

Maps, locations and additional data are on file with the Eastham Conservation Commission to aid in decision making and setting protection priorities. However, the MNHP does recommend Minister Pond as a highest priority site outside the park boundaries for preserving rare species habitat. The review by the Massachusetts Natural Heritage Program shows Eastham to be important to a large number of state and/or federally designated rare, threatened or endangered species; they are as follows:

**Reptiles/Amphibians:**

EASTERN BOX TURTLE (*Terrapene c. carolina*) is 4½ - 6 inches long with a high, domelike shell and extremely variable coloration and pattern. Both upper and lower shells may be yellow, orange or olive on black or brown; either dark or light colors may predominate.

Found in woodlands, field edges, thickets, marshes, pastures, bogs and stream banks, the Eastern Box Turtle ranges from southeastern Maine, west to the Mississippi River, central Illinois and south to northern Florida. Most typically found in well-drained forest bottomland, they have been observed swimming in slow-moving streams and ponds. The young are semi-aquatic.

Listed as "State threatened", this animal is considered rare in Massachusetts due to loss of habitat and mortality while crossing highways.

NORTHERN DIAMONDBACK TERRAPIN (*Malaclemys terrapin*) is a medium-sized salt marsh turtle with a wedge-shaped back shell that is colored in ash grays, light browns and blacks, and patterned with concentric rings, grooves and stripes. They inhabit marshes which border salt or brackish tidal waters and can also be found in mud flats, shallow bays and coves.

This animal is believed to be declining in Massachusetts and is listed as "State threatened."

EASTERN SPADEFOOT TOAD (*Scaphiopus holbrookii holbrookii*) is characterized by an elongated sickle-shaped "spade" found under each hind foot. Its body is grayish brown, blackish-brown, or sepia with smooth skin. Two yellow lines originate from each eye and run down its back to form a lyre-shaped pattern. Another light line runs along each side of its body. It is found in forested areas with sandy or loose soils and pine and oak woodlands interspersed with temporary ponds which are used for breeding. It is listed as a rare species in Massachusetts where it is also considered endangered.

SPOTTED TURTLE (*Clemmys guttata*) is a small turtle, usually less than five inches in shell length, which is characterized by distinct yellow polka dots on its head, neck and legs. Spotted turtles are pond dwellers which prefer the colder water temperatures of spring; they disappear in the heat of summer. They lay eggs in nearby open fields and the young hatch in about 12 weeks. Their average life span is 26 years, but many probably achieve 50 years. The Spotted Turtle is a Species of Special Concern.

**Birds:**

ROSEATE TERN (*Sterna Dougallii*) nests in colonies on islands, beaches and sand dunes. Endangered in Massachusetts and throughout their range, the Roseate Tern is under consideration for federal listing under the Endangered Species Act (ESA).

ARCTIC TERN (*Paradisaea*) is endangered in Massachusetts. The Arctic Tern nests colonially in similar habitat to the Roseate Tern.

LAUGHING GULL (*Larus atricilla*) nests colonially on islands, beaches, and sand dunes or in similar habitat to the Arctic and Roseate Terns. The Laughing Gull is a Species of Special Concern and rare in Massachusetts.

RED KNOT (*Calidris canutus*) uses sandy beaches with extensive tidal flats and nearby salt marshes during migration stopovers. The Red Knot does not breed in Massachusetts, but the stopover habitat is important in its life cycle. The Red Knot is a Species of Special Concern and rare in Massachusetts.

PIPING PLOVER (*Charadrium melodus*) nests on sandy beaches and dunes. Numerous programs have been implemented to enhance the populations. Oversand vehicle traffic is a major factor in the destruction of juvenile plovers. Closure of beaches to motor vehicle traffic during times when chicks are scampering along the beach has significantly increased the success rate of fledged young. Other predators such as mammals and other bird species remain a part of the survival formula.

WILLET (*Catotrophus semipalmatus*) nests and feeds on beaches and salt marshes. The Willet is a Species of Special Concern and is rare in Massachusetts.

LEAST TERN (*Sterna antillarum*) inhabits broad, flat, open, sandy, pebbly beaches, with sparse vegetation. Nests are usually shallow depressions in the sand, and they occur in colonies. The Least Tern is considered a Species of Special Concern in Massachusetts.

OSPREY (*Pandion haliaetus*) have enjoyed some success with several nesting sites established around Eastham's marshes. This cooperative effort among Massachusetts Audubon, Massachusetts Division of Fish & Wildlife, the Town and various property owners has resulted in the installation of pole-mounted platforms. Typically, a nesting pair will occupy the site and return yearly to raise two or three young.

## **SHELLFISHING**

The primary use of shellfishing in Eastham is that of the so-called family or recreational fisherman. Typically, 90 percent of the permits sold and 75 percent of the shellfish taken are by non-commercial fishermen. Soft shell clam harvests in 1995 and 1996 boosted the value of commercial harvest to \$1.25 million.

With the decline in offshore finfish stocks, considerable interest has been generated in aquaculture, an aspect of Eastham's fishing which has been ongoing for sixty years. Presently, over thirty acres of intertidal areas in Nauset Marsh and Cape Cod Bay are designated for aquaculture.

However, the economic value of the shellfish resource in Eastham is balanced by the recreational value. On a given Sunday in the summertime, upwards of 300 to 400 people will descend on Salt Pond, and spend several hours in an activity that may be totally new (or an old pastime), and almost always go home with the beginnings of a chowder. Visitors new to the area are shown the workings of the hatchery operation that the Town maintains. An average of 4,000 persons visit the site each year. The pond is stocked annually with adult chowder quahogs in a relay from deep water in Cape Cod Bay.

A substantial percentage of those persons using this resource supplement their food budget regularly by stocking the freezer during the warm weather. When crops like scallops or oysters are available, many persons who are unable to purchase them due to fixed or limited incomes are able to enjoy these species.

Shellfish Permit sales for the calendar year 1997 were as follows:

Resident - taxpayer	920	\$ 9,030
Resident - senior	762	--
Guest	399	\$ 1,910
Out of town	77	\$ 1,940
Commercial	279	\$16,740

(Compiled by Henry Lind, Eastham Natural Resources Officer)

## SCENIC RESOURCES AND UNIQUE ENVIRONMENTS

### CAPE COD NATIONAL SEASHORE

The Cape Cod National Seashore (CCNS) was established by an act of the United States Congress on August 7, 1961 and is administered by the National Park Service, United States Department of the Interior. A total of 43,524 acres of the Outer Cape, including tidelands (lands lying one-quarter mile from the shoreline into the ocean and bay) are within the official designated boundary of the CCNS. Of these 43,524 acres, 16,032 are not subject to Seashore acquisition; specifically, 11,930 acres are state owned (including tidelands), 2,612 acres are Town owned, and 1,490 acres are privately owned. Privately owned land is protected by the establishing legislation that specifies preservation as the primary goal:

In order that the Seashore shall be permanently preserved in its present state, no development or plan for the convenience of visitors shall be undertaken which would be incompatible with the preservation of the unique flora and fauna or the physiographic conditions now prevailing or with the preservation of such historic sites and structures. (P.L.87-126, 76 Stat. 284)

However, the legislation does allow the National Park Service to provide for the public enjoyment and understanding of unique natural, historic and scientific features of Cape Cod with the Seashore by establishing such trails, observation points, and exhibits and providing such services as they may deem desirable for such public enjoyment and understanding . . . (and) may develop for appropriate . . .

public uses such portions of the Seashore as they deem especially adaptable for camping, swimming, boating, sailing, hunting, fishing, the appreciation of historic sites and structures and natural features of Cape Cod and other activities of similar nature. (P.L.87-126, 75 Stat. 284)

The Town of Eastham has approximately 4,800 acres, including tidelands, lying within the designated Seashore boundary. Since September 1, 1959, a person can theoretically still buy land and erect a house within the Seashore. However, such development is subject to acquisition by the Seashore, which makes every effort to purchase such land in accordance with the goal of preserving the land in its natural state.

Among the most notable landmarks within Eastham's portion of the Seashore are Nauset Light and Coast Guard Beaches, the Three Sisters Lighthouses, the scenic and historic Fort Hill area including the Penniman House, and Doane Rock. These and other Seashore features attract millions of visitors annually, as shown in Table 6.

**TABLE 6****TOTAL VISITS TO CAPE COD NATIONAL SEASHORE -- 1964-1983 AND 1994-1997**

<u>YEAR</u>	<u>TOTAL VISITS*</u>
1964	1,849,875
1965	2,306,133
1966	2,830,288
1967	3,040,509
1968	3,475,842
1969	4,031,258
1970	3,987,001
1971	4,188,300
1972	4,972,281
1973	4,741,975
1974	4,359,393
1975	5,222,895
1976	5,018,707
1977	5,348,852
1978	5,025,902
1979	3,947,353
1980	4,819,795
1981	5,010,254
1982	4,047,513
1983	4,625,828
1994	5,000,000
1995	5,170,587
1996	4,931,330
1997	4,638,002

\* From Cape Cod National Seashore data

**HISTORICAL AREA (Old Town Centre Historic District)**

This small area of about two blocks contains many historic landmarks (see Figure 7, which follows). It is a capsule of early Eastham with much of the original flavor still unspoiled.

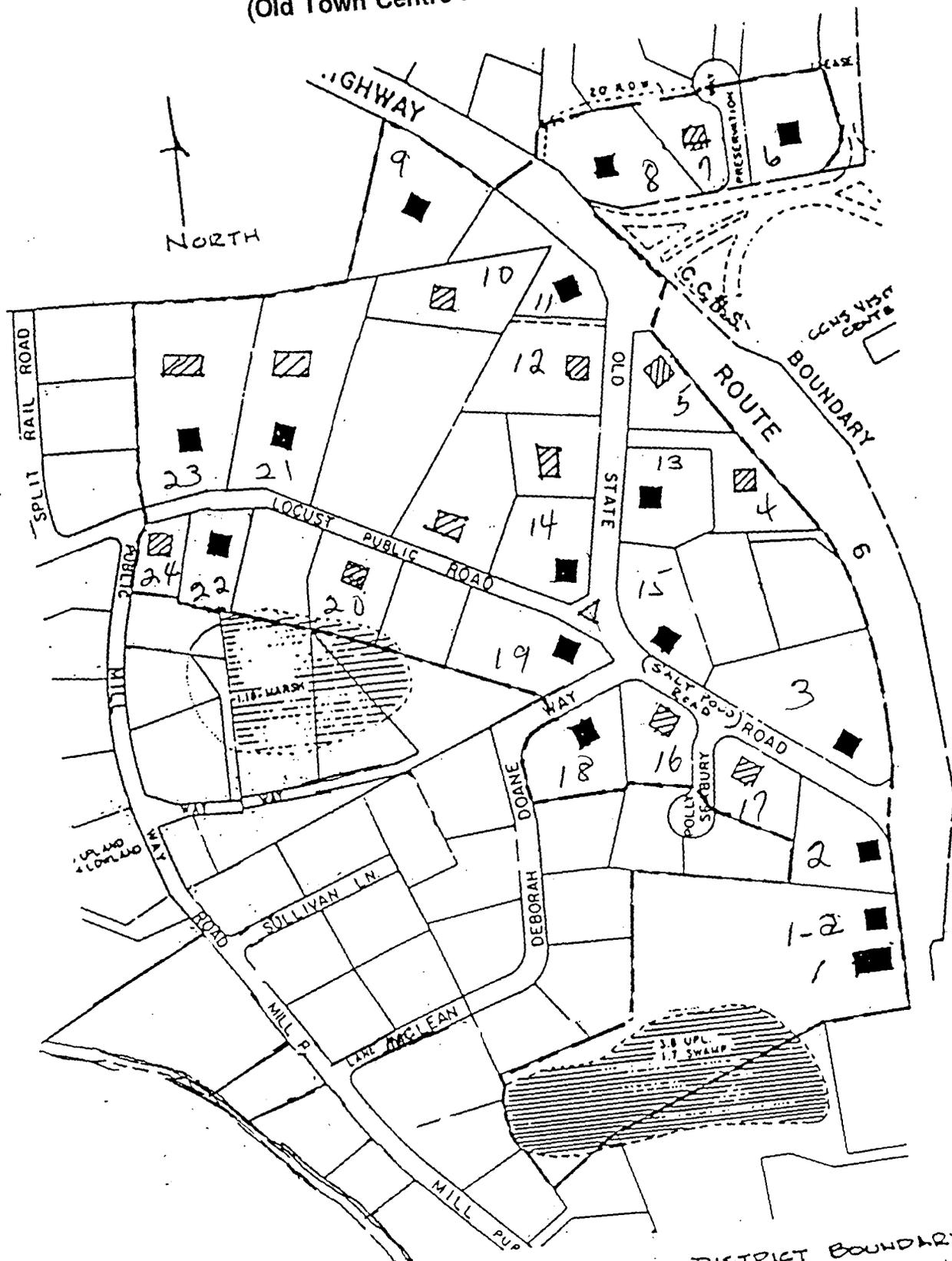
There are eighteen buildings that date between 1695—1880; seven of these in the 1700's.

Here is located Eastham's first town hall, the town pump, the stagecoach stop, the original site of the windmill, an early inn, and the old schoolhouse.

The houses are plain and sturdy, reflecting the harder life of the outer Cape, but they have interesting features: timbers from the early salt works, an original Barnstable brick hearth, examples of early graining, wainscoting and woodworking, original glass panes. Some of the early outbuildings are left; barns and sheds. The houses were originally small farms making each unit self-sufficient.

Additional historic sites are listed in Appendix C.

**FIGURE 7**  
**HISTORICAL AREA**  
(Old Town Centre Historic District)



OLD TOWN CENTRE  
HISTORIC DISTRICT

- - - DISTRICT BOUNDARY
- - OLD HOUSES (PRE-1900)
- ▨ - "NEW" HOUSES (POST 1900)

### **THE LAMONT SMITH PROPERTY**

It was voted at the Annual Town Meeting held in May 1987 that Eastham purchase a parcel of 26.8 acres known as the Lamont Smith Property, located in the southwest part of town, at a cost of \$1,750,000.

The Open Space Committee, newly formed, recommended this purchase to the town as fulfilling its goals, as follows:

1. Open Space: This is in a built-up area and under pressure for development. It has varied kinds of environments: 16.3 acres of forests, 7.3 acres of wetland, 2.0 acres open, and 1.2 acres of water. It has a pleasing, rolling type of landscape and combines salt and fresh water wetlands with open fields, ponds and upland forest. It encompasses and is adjacent to an Inner Cape Cod Bay Area of Critical Environmental Concern (see Figure 8A).
2. Water: The presence of fresh and salt water wetlands and ponds makes this an area of importance for protection of the water table as well as of the flora and fauna.
3. Natural Resources: Because of the diverse environments in this area, there is a rich variety of flora and fauna to preserve in an otherwise built-up area of town.
4. Recreation: This is the only open space for this part of Eastham. It is an ideal place for walking and observing nature and escaping the business of everyday life. Being adjacent to the Cape Cod Rail Trail gives easy access to bikers. It is a haven for residential and migratory birds. There is a walk for the handicapped.

Support for buying this property was given by the *ad hoc* Open Space Committee and the Conservation Commission, and also by a citizens' group known as the Eastham Forum.

The property is well maintained by the Natural Resources Department. One million dollars of the property's cost was reimbursed by the state.

### **COTTONTAIL ACRES (the Horton Property)**

It was voted at a Special Town Meeting held in October 1988 that Eastham purchase the 19-acre piece of land in the central part of town, known as the Horton Property, at a cost of approximately \$2,000,000. It had been subdivided and was for sale as residential lots.

The Eastham Open Space Committee recommended this purchase as fulfilling its various goals as follows:

1. Open Space: This piece represents the most southerly link of a conceptualized "Eastham Glacial Pond Park" encompassing, in the future, about 100 acres including 60 acres, already owned, known as Wiley Park. It fronts on two ponds and its hilltop affords a nice view.

2. Water: Acquiring this land protects groundwater flow into Herring Pond and Jemima Pond. Herring Pond lies within the Inner Cape Cod Bay Area of Critical Environmental Concern (see Figure 8A).
3. Natural Resources: It contains a mixture of woods, shrubs and fields that might provide habitat for a variety of flora and fauna, and many migratory birds use it for a resting place on their path.
4. Recreation: The area provides walking and skiing trails, ponds for fishing and skating, bridle paths, and opportunities for fishing for the handicapped. Birdwatchers will find both land and water birds here.

The Open Space Committee was supported in this purchase by the Eastham Conservation Commission, the Eastham Forum, and the Village Improvement Society 1988, an *ad hoc* subcommittee of the Eastham Conservation Foundation, so-called after the VIS that built the library many years before. VIS 1988 conducted walks through the property and made a video of it available at the library, as well as providing the townspeople with an informative brochure.

### **SCHOOLHOUSE/MINISTER POND CONCEPT**

Outlined in the 1986 Open Space Plan, this project to develop a walking trail and swimming area for the physically challenged has been implemented in part at this time. Following a formal hearing with the Conservation Commission upon the filing of a Notice of Intent, a walking trail was constructed between the pond and the Eastham Elementary School property. This trail includes upland and pond shore areas and provides a loop return at the extreme northerly end. School classes of all grade levels are able to use this area for different levels of exploration. The fourth grade classes have used the site as part of a national climate data collection initiative known as the GLOBE program. Various maintenance issues have been undertaken by scout groups and students alike to maintain the trail in its configuration. Two benches have been installed for rest stops and observation sites. Interpretive materials concerning the area are not complete at this time, but await funding.

The second aspect of the project as outlined has been incorporated into the PACE five year action plan for the development of access for physically challenged persons. Applications for funding from other agencies will be pursued to meet the costs. The summer program for children which is held at the Eastham Elementary School has used the pond site for swimming programs on an intermittent basis.

### **AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)**

Eastham is fortunate to have two areas of land designated as Areas of Critical Environmental Concern. This unique designation is the result of concerned citizens working with Massachusetts Coastal Zone Management to nominate the areas and document their significance.

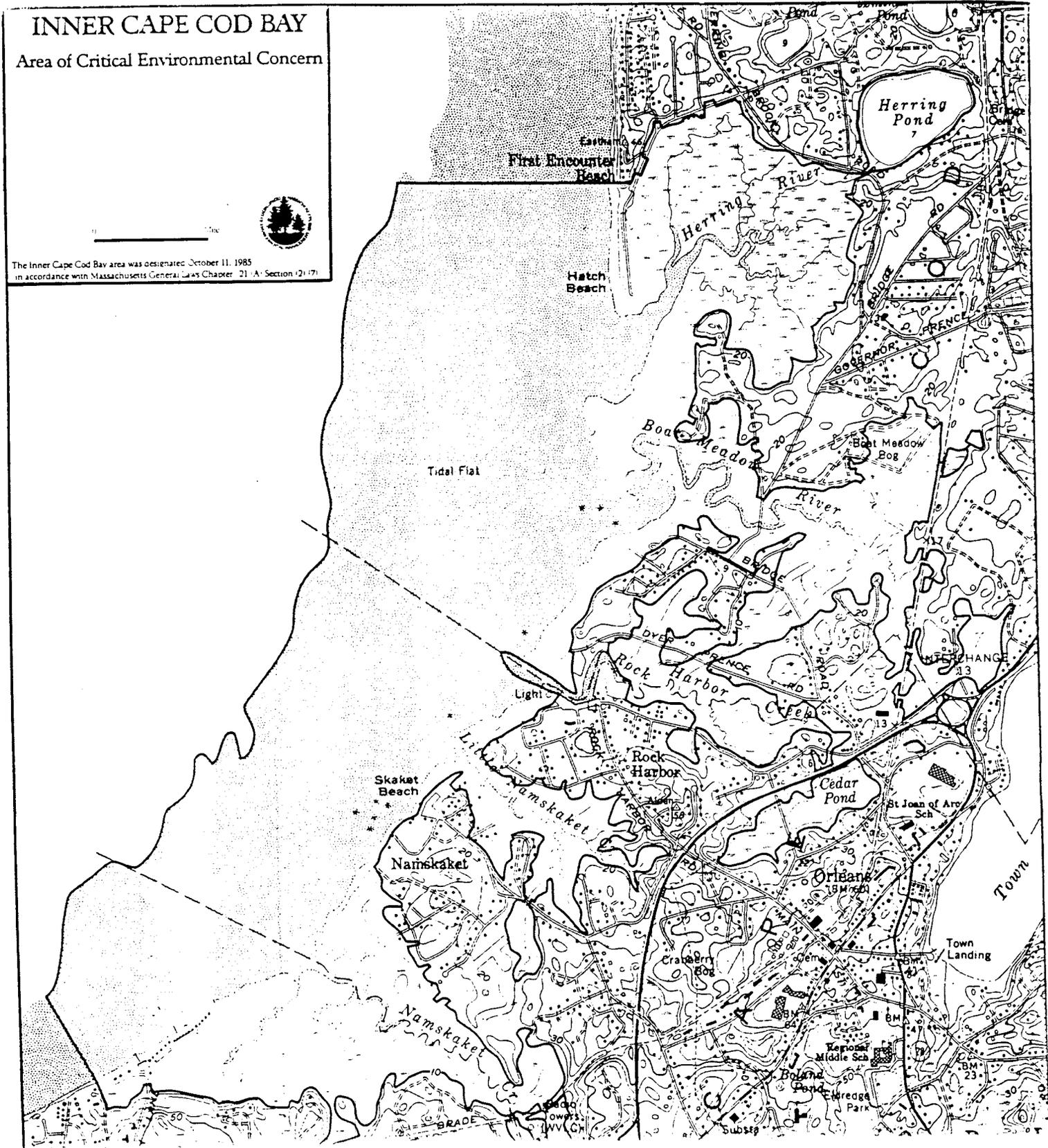
Certain criteria must be met to merit the designation and the Eastham areas include them all:

1. Anadromous/Catadromous fish runs
2. Barrier beach systems
3. Coastal beaches
4. Embayments
5. Coastal estuaries
6. Coastal dunes
7. Eroding beaches
8. Salt marshes
9. Salt ponds
10. Shellfish beds
11. Habitats for rare and endangered species
12. Fish spawning and nursery areas
13. Wildlife habitats
14. Significant scenic sites
15. Flood plains
16. Freshwater wetlands
17. Flats
18. Meadows
19. Swamps
20. Creeks
21. Streams
22. Ponds
23. Aquifer recharge areas
24. Historic sites

Obviously the areas are worth protecting, and the designation insures that any proposed project in it will have the closest possible review at all levels so that the project, if carried forward, will have no adverse effect on the environment.

The two sites which are so designated lie on the westerly part of Eastham along Cape Cod Bay. In the south, the area from First Encounter Beach to Rock Harbor, including Boat Meadow and Bee's River, are part of the Inner Cape Cod Bay ACEC. This site extends along the shore to Namskaket Creek in Brewster as well. In the north, the area from South Sunken Meadow to the Wellfleet town line is part of the Wellfleet Harbor ACEC. (See Figures 8A and 8B, which follow.)

FIGURE 8A  
ACEC - INNER CAPE COD BAY

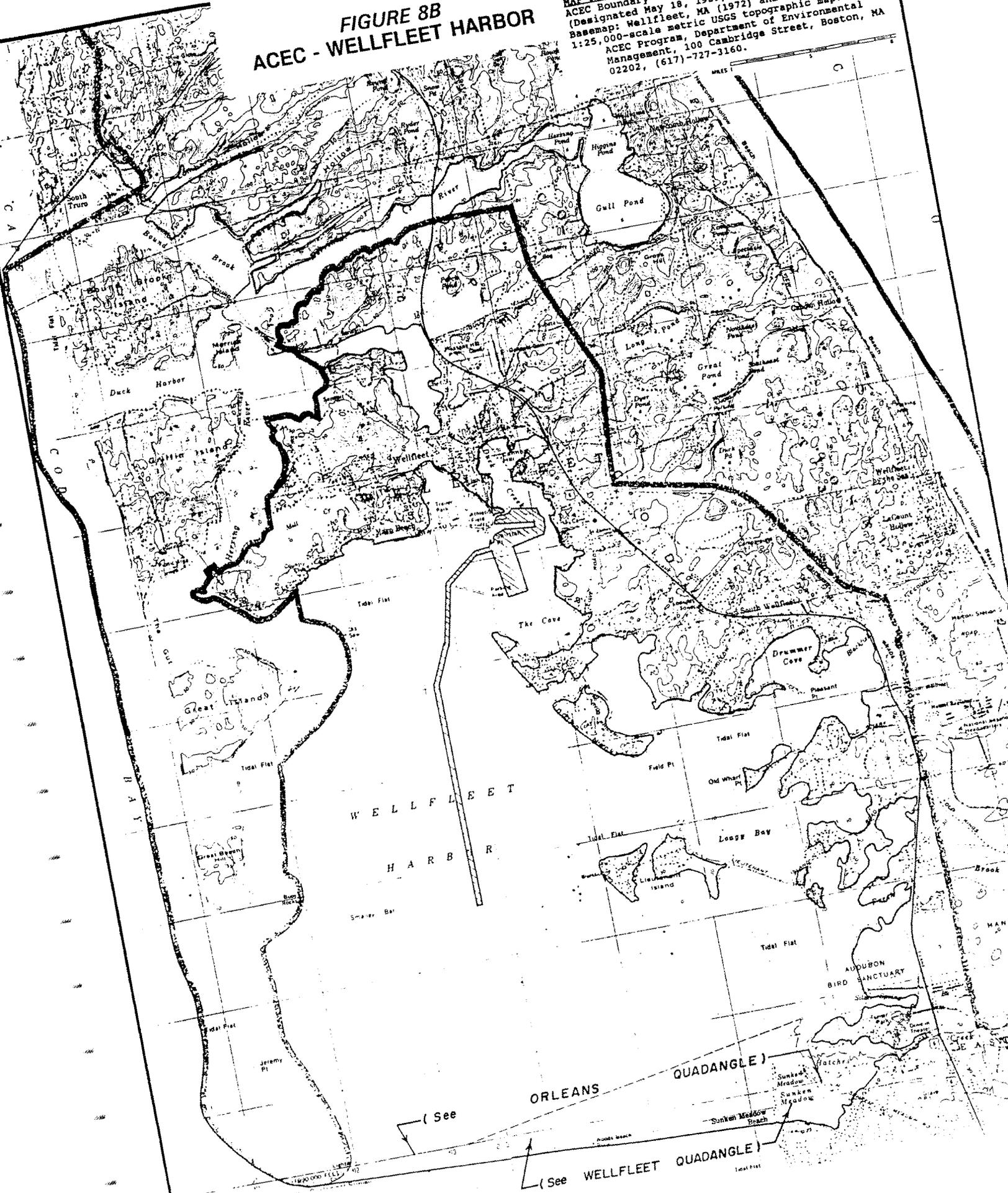


# FIGURE 8B ACEC - WELLFLEET HARBOR

Wellfleet Harbor  
Area of Critical Environmental Concern



MAP KEY  
ACEC Boundary May 18, 1989)  
(Designated May 18, 1989) and Orleans (1974)  
Basemap: Wellfleet, MA (1972) and Orleans (1974)  
1:25,000-scale metric USGS topographic map.  
ACEC Program, Department of Environmental  
Management, 108 Cambridge Street, Boston, MA  
02202, (617)-727-3160.



( See

ORLEANS

QUADRANGLE )

( See WELLFLEET QUADRANGLE )

## ENVIRONMENTAL PROBLEMS

The environmental concerns which are of significance in Eastham are primarily focused on groundwater. As the unseen receptor of all septic waste, fertilizer and toxics which are distributed on the ground wither intentionally or by accident, the groundwater slowly but continuously distributes its collection to all parts of the town. The landfill capping, which was recently completed, has reduced the risk associated with the potential for a toxic plume. Monitoring wells have been installed on the perimeter to intercept any plume and in a pattern to track and monitor the groundwater progress.

Nitrate and phosphate contributions by way of groundwater discharge into coastal waters are exhibiting themselves as increased algal blooms and are affecting shellfish populations. Together with increased use of our embayments by pleasure boats, these algal blooms are resulting in increased water turbidity with consequent loss of shellfish habitat.

Coastal erosion is an ongoing concern as Eastham has significant areas of eroding shoreline which put dwellings at risk. Balancing the need to protect dwellings with the overall well-being of the beach system is an ongoing challenge for the town as well. In short, the cumulative impacts of development of the land have chronic, increasing and long term environmental impacts which need constant attention.

## **SECTION V INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST**

The following pages contain a chart of town-owned lands of conservation and recreation interest. Further narrative details about these parcels and a guide to locating them on the inventory map (Figure 6) can be found in Appendix C. Most parcels are located in areas zoned residential, with some located in the Water Resource Protection zone (WRP). Note: for purposes of this inventory, only those lands under the management of the town's Conservation Commission are considered to be protected from development in perpetuity.

The features of those recreational beaches, ponds, and landings most heavily used by the public are summarized in Tables 10 and 11, and information on plans to improve the accessibility to many of those areas can be found in Appendix D.

Also listed in this Section are properties held by the Eastham Conservation Trust, and other parcels subject to conservation restrictions and preferential taxation.

## SECTION V

### INVENTORY OF LANDS OF CONSERVATION AND RECREATION INTEREST

(See also Appendices C and D; Tables 10 and 11)

KEY#/ACRES SITE	OWNER	MGMT AGENCY	CURRENT USE	CONDITION	RECREATION POTENTIAL	GRANT TYPE	PUBLIC ACCESS	ZONING	PROTECTION	HANDICAP ACCESS
#2/11.4 Elem School	Town	Eastham School Comm	athletics, playground	playing fields	hiking	N/A	yes	res		yes
#4/1.6 Windmill Green	Town	Selectmen	Windmill Village Green tourist attraction	17th century mill, lawns, benches	fairs; outdoor art shows; square dances	N/A	yes	res		limited
#11/2.73 South Sunken Meadow Landing	Town	Selectmen	bayside beach	sand beach, paved parking	swimming, boating, fishing, hiking	N/A	parking stickers required	res		yes
#12/4.27 Cooks Brook Landing	Town	Selectmen	bayside beach	sand beach, paved parking, restrooms	swimming, boating, fishing, hiking	N/A	parking stickers required	res		yes
#13/2.2 Campground Landing	Town	Selectmen	bayside beach	sand beach, paved parking	swimming, boating, fishing, hiking	N/A	parking stickers required	res		yes
#14/.91 Thumpertown Landing	Town	Selectmen	bayside beach	sand beach, stairway to beach, limited parking	swimming, fishing, hiking, birdwatching	N/A	parking stickers required	res		no
#15/1.05 Cole Road Beach	Town	Selectmen	bayside beach, herring run	sand beach, parking, culvert/gates for herring	swimming, fishing	N/A	yes	res		yes
#16/34.0 First Encounter	Town	Selectmen/ Cons Com	bayside beach	sand beach, paved parking, bathhouse, benches, site marker	swimming, boating, fishing, hunting, hiking, sunset watching	N/A	parking stickers required	res	yes	yes
#17/8.3 Boat Meadow Landing	Town	Selectmen	town landing	sand beach	fishing, sailing, hunting, hiking, swimming, birdwatching	N/A	parking stickers required	res		yes

KEY#/ACRES SITE	OWNER	MGMT AGENCY	CURRENT USE	CONDITION	RECREATION POTENTIAL	GRANT TYPE	PUBLIC ACCESS	ZONING	PROTECTION	HANDICAP ACCESS
#18/9.9 Rock Harbor	Town	Selectmen	marina	piers, boat ramp, paved parking	boat launching	DEM	yes	marina, municipal		partial
#19/6.4 Salt Pond	Town	Selectmen	shellfishing	sand beach, paved parking, abuts National Seashore Visitors Center	shellfishing, birdwatching, boating, fishing, swimming, hiking	N/A	yes	res		yes
#20/1.29 Hemenway Landing	Town	Selectmen	boat landing	boat ramp, paved parking, within National Seashore	fishing, boating, hunting, hiking, swimming, birdwatching, shellfishing	N/A	yes	res		yes
#21/1.2 Collins Landing	Town	Selectmen	boat landing	boat ramp, limited parking	fishing, boating, shellfishing	N/A	yes	res		limited
#22/.9 Great Pond Beach	Town	Selectmen	boat landing, swimming	boat ramp, protected swimming, parking, rest rooms (seasonal)	fishing, swimming, sailing, waterskiing (50mph outboard)	N/A	yes	res		yes
#23/.7 Jemima Pond	Town	Selectmen	fishing, ice skating	small parking area, night lights	fishing, ice skating	N/A	yes	res		limited
#24/.75 Herring Pond	Town	Selectmen	fresh water beach	parking area, stocked pond, herring run	swimming, fishing, sailing	N/A	parking stickers required	res		yes
#25/12.4 North Sunken Meadow	Town	Cons Com	conservation	marsh area within ACEC	birdwatching	N/A	yes	res	yes	no
#26/18.4 Boat Meadow	Town	Cons Com	conservation	marsh area within ACEC	birdwatching, hunting	N/A	yes	res	yes	no
#27/3.2 Boat Meadow	Town	Cons Com	conservation	marsh area within ACEC	hunting	N/A	yes	res	yes	no
#28/5.5 Raddin	Town	Cons Com	conservation	marsh area within ACEC	hunting	N/A	yes	res	yes	no

KEY#/ACRES SITE	OWNER	MGMT AGENCY	CURRENT USE	CONDITION	RECREATION POTENTIAL	GRANT TYPE	PUBLIC ACCESS	ZONING	PROTECTION	HANDICAP ACCESS
#29/.79 Deacon Paine Pond	Town	Cons Com	conservation	poor access to small pond	best left passive	N/A	no	res	yes	no
#30, 31/2.0, 8.7 Nauset Spit	Town	Cons Com	birdwatching, fishing, tern nesting	restricted to foot traffic	birdwatching, fishing, swimming	N/A	by foot only	res	yes	no
#32/44.1 Wiley Park	Town	Selectmen	freshwater swimming beach	sand beach, playground, bathhouse, paved parking, telephone	swimming, fishing, picnicking, hiking	DEM	parking stickers required	res		yes
#33/128.73 Ocean View Drive	Town	Selectmen	none	vernal pools, within National Seashore	ocean side beach	N/A	no	res		no
#35/1.15 Field of Dreams	Town	Selectmen	baseball field	paved parking, bleacher seats	Little League baseball; softball and soccer	N/A	yes	res		yes
#36/5.3 Nauset Rod & Gun Club	Town	Selectmen	leased to sportsmen's club	N/A	N/A	N/A	no	res		no
#37/31.1 within CCNS 3/16 and 2/20	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#38/9.5 Map 2 Parcel 18	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#39/1.6 Map 2 Parcel 8	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#40/14.4 Map 2 Parcel 6 plus 2 lots	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited

KEY#/ACRES SITE	OWNER	MGMT AGCY	CURRENT USE	CONDITION	RECREATION POTENTIAL	GRANT TYPE	PUBLIC ACCESS	ZONING	PROTECTION	HANDICAP ACCESS
#41/13.78 Map 5 Parcel 22 Map 6 Block 27- 37	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#42/6.54 Map 6 parcel 145 + unnumbered lot	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#43/30.3 Map 5 Parcels 28, 29, 31	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#44/2.5 Part of 6/141	Town	Selectmen	Water Resource	undeveloped	hiking	N/A	no	WRP		limited
#45/4.7 Map 6 B28-116	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no
#46/1.9 Map 6 Lot 1DB in CCNS	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no
#47/25 Map 23 Parcel 11 and Block 24 12- 14	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no
#48/1.52 Map 24 Parcels 31, 31A, C-E, 33- 35	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no
#49/1.53 Map 23 Parcel B6-6 & BP16, Map 24/31F, G, 35A, 36	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no
#50/41 Map 9 Parcel 41D and B4-6	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no

KEY#/ACRES SITE	OWNER	MGMT AGENCY	CURRENT USE	CONDITION	RECREATION POTENTIAL	GRANT TYPE	PUBLIC ACCESS	ZONING	PROTECTION	HANDICAP ACCESS
#51/6.34 Map 25 Parcel 23A	Town	Selectmen	vacant	undeveloped	N/A	N/A	no	res		no
#52/.9 Map 11 Parcel 185	Town	Selectmen	beach	beach		N/A	no	res		no
#53/20.3 Map 12 parcel 211	Town	Selectmen	vacant	undeveloped		N/A	no	res		no
#53/2.0 Map 12 Parcel 211 Children's Place	Town	Selectmen	school	school		N/A	yes	res		yes
#53/1.0 Map 12 Parcel 211 Affordable Housing	Town	Selectmen	future housing	undeveloped		N/A	yes	res		no
#54/4.0 Map 9 Parcel 42, 44, 45, 61 and 2 unmarked parcels	Town	Selectmen	vacant	undeveloped		N/A	no	res		no
#55/.64 Map 24 Parcel 25 and 27	Town	Selectmen	vacant	undeveloped		N/A	no	res		no
#56/.85 Map 3 Parcel 12	Town	Selectmen	vacant	undeveloped		N/A	no	res		no
#57/2.5 Map 3 Parcel 13	Town	Selectmen	vacant	undeveloped		N/A	no	res		no
#58, 59, 60 22.9, 2.5, 2.0 easements	Town	N/A	conservation easements	N/A	N/A	N/A	no	res		no
#61/7.8 Rock Harbor Marsh	Town	Cons Com	hunting, birdwatching	marsh area within ACEC		N/A	yes	res	yes	no

KEY#/ACRES SITE	OWNER	MGMT AGENCY	CURRENT USE	CONDITION	RECREATION POTENTIAL	GRANT TYPE	PUBLIC ACCESS	ZONING	PROTECTION	HANDICAP ACCESS
#62/5.4 Boat Meadow Marsh	Town	Cons Com	hiking, birdwatching	marsh area within ACEC		N/A	yes	res	yes	no
#63/25.26 Herring Brook	Town	Cons Com	hiking, birdwatching	trails defined	hiking, birdwatching	N/A	yes	res	yes	no
#64/13.5 Herring River	Town	Cons Com	birdwatching	marsh area within ACEC	birdwatching	N/A	yes	res	yes	no
#65/20.52 South Sunken Meadow	Town	Cons Com	birdwatching	marsh area within ACEC	birdwatching	N/A	yes	res	yes	no
#66/.2	Town	Water Resource	water protection	N/A	N/A	N/A	no	WRP	yes	no
#67/2.5 Samoset/Great Marsh	Town	Selectmen	birdwatching, hunting	marsh area within ACEC	birdwatching, hunting	N/A	yes	res		no
#68/15.0 Nauset High School	Town	Regional School Comm	athletics, tennis	playing fields, track, tennis courts	summer programs under Rec Comm	N/A	yes	res		yes
#78/26.8 Lamont Smith	Town	Cons Com	hiking, birdwatching, hunting prohibited	marked trails, small pond, connects to Rail Trail, within ACEC	hiking, birdwatching	DEM	limited parking	res	yes	no
#79/19 Cottontail Acres	Town	Selectmen	walking, cross country skiing, ice skating	marked trails, access to two ponds, links with Glacial Pond Park	walking, cross country skiing, ice skating, birdwatching	DEM	limited parking	res		yes

## **EASTHAM CONSERVATION FOUNDATION, INC.**

The Eastham Conservation Foundation, Inc. is a private, non-profit organization established under the General Laws of the Commonwealth to promote the interests of the town and its inhabitants, and to assist in the preservation and maintenance of various natural resources. A member of the Compact of Cape Cod Conservation Trusts, Inc., the Foundation currently holds or protects over two hundred acres of open space in Eastham, summarized in Table 7.

## **CONSERVATION RESTRICTIONS**

Conservation restrictions place limits on the future development use of a parcel of land, thereby retaining it in a natural or open condition, in exchange for a considerable abatement on the property tax (generally 85%). Eastham has adopted guidelines for conservation restriction procedures whereby the title for the land remains with the owner while an organization such as the Eastham Conservation Foundation or the Massachusetts Audubon Society generally holds the restriction. Parcels in Eastham currently under conservation restrictions are summarized in Table 8.

## **PREFERENTIAL TAXATION**

Massachusetts General Laws Chapters 61 (the Forestland Act), 61A (the Farmland Assessment Act), and 61B (the Open Space Act) provide another means by which a landowner may qualify for a property tax abatement while their land is kept from development. Each of these statutes has different requirements regarding the minimum size of the parcel, the length of time it must remain under the restricted use, and the penalties incurred if the owner removes the land from the Chapter 61 classification early. An application process is necessary, and the preferential assessment must be renewed periodically. If a parcel is removed from Chapter 61 classification so that it can be converted to another use, the town has an opportunity to purchase the land under the right of first refusal, but the decision to purchase must be made within 120 days, and the town must match a bona fide purchase price. However, the town may assign its option to a qualified non-profit organization. Table 9 summarizes parcels subject to preferential taxation under these state programs.

TABLE 7

## LAND HOLDINGS OF THE EASTHAM CONSERVATION FOUNDATION

LOCATION	HABITAT	ACREAGE
Bees River	salt marsh	21.21
21 Dyer Prince Road	salt marsh/upland	1.15
195 Spring Road	salt marsh	0.80
Nauset Light Beach Road	eroding bluff	0.67
555 Herring Brook Road	salt marsh	15.21
565 Herring Brook Road	salt marsh and coastal bank	0.73
Ireland Way	bordering vegetated wet	9.49
160 Locust Road	shrub swamp	0.77
41 Cranberry Lane	coastal dune, beach	1.03
Salt Marsh Lane	brackish marsh - old bog	25.95
35 Hoffman Lane	upland locust grove	1.24
Off Nauset Road	mixed pine and hardwood	3.09
Off Nauset Road	mixed pine and hardwood	3.49
21 Dyer Prince Lane	salt marsh and upland	0.70
Governor Prence Road	white cedar, maple swamp	19.85
40 Piper Lane	pine woods	0.28
45 Piper Lane	pine/oak woods	.32
Off Northwest Street	pine woods/marsh - bog	5.40
Off Herring Brook Road	salt marsh	34.25
10 Windjammer Lane	shrub swamp	0.51
170 Mill Road	pine/oak woods	0.46
1885 Route 6	locust grove	1.24
Old County (off Nauset Road)	pine/oak woods	3.79
30 Moore Lane	shrub swamp	1.13
25 Moore Lane	pine woods	0.99
Off Nauset Road	pine/oak woods	7.43
25 Asparagus Lane	dune, beach	1.34
35 Asparagus Lane	dune	1.08
1565 Samoset Road	salt marsh	2.54
10 Nauset Way	cedar field	0.35
Off Nauset Road	pine/oak woods	1.91
750 Bridge Road	salt marsh	1.79
North Sunken Meadow	salt marsh/old bog	26.66
180 Pine Woods Road	vernal pool	0.62
Bridge Road	salt marsh	2.70
120 Dyer Prince Road	mixed transition	0.53
	TOTAL	200.70

**TABLE 8****LAND PROTECTED BY CONSERVATION RESTRICTIONS**

MAP	PARCEL	LOCATION	ACREAGE
19	38	26 Asparagus Lane	1.34
19	39	35 Asparagus Lane	.62
19	40	200 Sunset Avenue	.46
19	42	220 Sunset Avenue	1.79
19	48	1009 Esplanade	.32
08	295A	155 McKoy Road	2.74
17	687E	44 Salt Marsh Way	6.85
17	687G	28 Salt Marsh Way	11.16
11	061A	375 Locust Road	3.32
13	079B	1180 Herring Brook Road	1.00
16	021	10 Cartway North	20.30
25	021A	Nauset Road	1.80
25	021B	Nauset Road	9.50
25	021D	Nauset Road	1.37
25	021F	Nauset Road	5.08
Total Conservation Restricted Acreage:			67.65

**TABLE 9****LAND SUBJECT TO PREFERENTIAL TAXATION**

PROGRAM	OWNER/LOCATION	ACREAGE
Chapter 61	Fellers/255 Higgins Road	35.40
Chapter 61A	G. Handel/1765 Massasoit Road	11.69
Chapter 61B	Atlantic Oaks/Route 6 (Campground)	17.10
Chapter 61B	C. Baldwin/Dyer Prince Road	22.66
Chapter 61B	Marion Thomas/1200 Herring Brook Road	7.35
Total Acreage Subject to Preferential Taxation:		94.20

**TABLE 10  
EASTHAM RECREATION FACILITIES**

LOCATION	DOCKS PIERS FLOATS	LAUNCH SITE	MARINA	BEACH	PICNIC AREA	SHOWERS	RESTROOM
Boat Meadow				X			
Campground Beach				X			X
Coast Guard Beach				X		X	X
Cole Road				X			
Collins Landing		X					
Cooks Brook Beach				X			X
Doane Rock					X		
First Encounter Beach				X			X
Great Pond Beach		X		X			X
Hemenway Landing		X					
Herring Pond		X		X			X
Horton & Smith Properties							
Jemima Pond		X					
Kingsbury Beach				X			
Minister Pond		X					
Nauset Light Beach				X		X	X
Rock Harbor	X	X	X				X
Salt Pond		X					
Sunken Meadow Beach				X			
Thumpertown Beach				X			X
Wiley Park Beach	X			X	X	X	X

Source: Local Comprehensive Planning Committee

**TABLE 11**  
**TOWN-OWNED LANDINGS AND BEACHES**

NAME	LOCATION	ACREAGE
Boat Meadow	Bay View Drive	8.3
Campground Beach	Campground Road	2.2
Cole Road	Cole Road	1.0
Collins Landing	Route 6	.1
Cooks Brook Beach	Steele Road	4.3
First Encounter Beach	Samoset Road	34.0
Great Pond Landing/Beach	Great Pond Road	.9
Hemenway Landing	Hemenway Road	1.3
Herring Pond	Herring Brook Road	.8
Jemina Pond	Samoset Road	.7
Kingsbury Beach	Kingsbury Beach Road	.3
Minister Pond Landing (Fishermans Landing)	Schoolhouse Road	1.0
Rock Harbor	Dyer Prince Road	9.9
Salt Pond Landing	Route 6	6.4
Sunken Meadow Beach	South Sunken Meadow Road	2.7
Thumpertown Beach	Thumpertown Beach Road	.9
Wiley Park Beach	Herring Brook Road	44.0
Total Town-Owned Landings and Beaches		118.8

## SECTION VI COMMUNITY GOALS

The information originally gathered and subsequently updated by the Open Space Committees over the years, combined with the extensive work done by the Local Comprehensive Planning Committee and further supplemented by data and material from the Cape Cod Commission, has led to the formulation of the following community goals:

- to protect our fragile sole source aquifer;
- to encourage sustainable growth and development consistent with the carrying capacity of Eastham's natural environment; and
- to preserve and enhance the availability of open space in Eastham and protect wildlife habitat, recreation opportunities, and protect the natural resources, scenery and community character of the Town.

In support of these goals, and with the additional impetus provided by the passage of the Land Bank, the Open Space Committee recommends the establishment of a land acquisition program based on any or all of the following criteria.

Properties that:

- Protect water quality; contribute to well-field protection district; provide accessory equipment sites for a potential water supply distribution system.
- Access the Chapter 61 tax abatement program: agricultural, forest, open space/recreation.
- Provide links to Cape Cod Pathways/Bikeways network; Capewide Greenbelt program where threshold criteria are met for wildlife habitat.
- Abut town conservation lands.
- Abut a body of water/marsh.
- Provide a potential town park, recreation or beach site.

## **SECTION VII ANALYSIS OF COMMUNITY NEEDS**

### **SUMMARY OF RESOURCE PROTECTION NEEDS**

As stated elsewhere, the primary resources to be protected are the water systems: both the fragile sole source aquifer, and the surface salt and fresh water bodies which provide habitats, livelihoods and recreational opportunities. Secondly, protection of wildlife habitat continues to be vitally important as residential development continues unabated. Thirdly, preservation of as much of the rural and historic character of the town as possible in the face of said development presents a significant challenge.

### **SUMMARY OF COMMUNITY'S NEEDS**

#### **EASTHAM ELEMENTARY SCHOOL**

Eastham Elementary School is a public elementary facility that houses grades Kindergarten through Grade Five. Our Special Education Pre-School is housed in a facility outside the town limits. The student enrollment has steadied around 350 students with a slight decline projected for the '98-99 school year.

The educational program utilizes every bit of space available. There is some overlap of space utilization in the Arts. Storage continues to present a challenge as well as a maintenance repair room. The School Building Space Committee will be revitalized this coming fall. The committee advises the School Committee as to the long term implications of space utilization.

The classrooms are structured in a "self-contained" organization. The children stay with the same teacher during the day except for a daily visit to the Arts, Physical Education, Library, Lunch, Music and, of course, recess. Since the last report, we have added a Computer Lab for use by all students.

The School Council was formed two years ago at the direction of the Massachusetts Department of Education. The Council is made up of community members, parents and teachers. They assist and advise the Principal in the overall mission of the school. The School Committee continues to be responsible for the policy and budget of the school.

The State Department of Education of Massachusetts has initiated a new Educational Frameworks of standards applicable to the core curriculum and an assessment component to accompany the standards. The Technology Plan, also required, will, over a 5-year plan, insure computer accessibility to all students and teachers within the classrooms.

Needs list:

School Building committee to review the next 5-10 year plan of physical facilities Capital Plan Items to reflect the aging status of the plant and grounds.

## **EASTHAM RECREATION COMMISSION**

The Recreation Commission's primary function is to organize programs for children ages 3 to 14. These programs include swimming, playground, soccer, field hockey, summer basketball, girls' basketball, boys' basketball, softball and baseball. The programs utilize the Nauset Regional High School, the Eastham Elementary School, and the ball fields behind Town Hall.

Registration fees are charged for each activity to offset the cost of equipment. The Recreation Commission annual fiscal budget pays for salaries and stipends for paid part-time employees.

While the position of Recreation Director was approved for funding and subsequently filled in late 1998, the recreation program relies heavily on volunteer parents and friends to coach, umpire and referee the various programs.

Monthly open meetings are held by the Recreation Commission. These meetings are frequently attended by parents who express concerns about the programs and furnish the committee with fresh ideas to improve the programs.

The Commission has discussed the expansion of programs presently offered but expansion is severely limited by lack of facilities and town budget constraints. Present demand for use of the high school and elementary school gymnasiums' open time is far greater than the availability, which severely inhibits expansion of winter programs. The lack of a golf course prohibits after-school golf instructions and teen-age activities at local facilities.

Our most pressing need is for a facility for the age group of 13-18 (high school age students) where organized socialization could take place. In the interim, the Recreation Commission supports and applauds the efforts of the community group "Together We Can" which raised the funds to build the Juice Bar, located in Orleans.

The Commission would highly endorse improvement of the Wiley Park facility, and construction of a teen center and community swimming pool. Any improvement would necessitate long term financial planning.

## **RECREATION LANDS: USE, FACILITIES AND PROBLEMS**

### **Use**

The major user group of recreational facilities are children under the age of nineteen years. With interest growing in aerobics classes for all age groups, the demand for more class instructors in this area will increase.

### **Facilities**

Two indoor facilities are used for recreational activities: the Nauset Regional High School gymnasium, and the Eastham Elementary School gymnasium.

Reports indicate a need for enclosed areas for instructional purposes in the children's sports and fitness/aerobics classes for all ages. Outdoor facilities need expansion to

meet increased demand for the following: tennis, golf, soccer, basketball, Little League baseball and softball.

### **Problems**

Lack of funding to pay maintenance professionals (overtime pay) at the facilities creates the number one problem. Non-paid volunteers, on occasion, do not always leave the facility in a tidy manner. Overtime pay for town or school employees is clearly needed.

The gymnasiums at the high school and elementary school are scheduled at maximum use for children's sports programs, adult education programs and senior citizens' programs. The children's sports programs suffer due to tight scheduling. Demand in the children's sports program has created a need for much more scheduled instructional time, and presently it cannot be supplied.

Due to Proposition 2½, the Town has had to depend on volunteers to manage programs with minimum pay. The sports programs are demanding by way of accountability (written reports), meetings with other towns' coaches, extra instructional meetings with children registered for the sport, and occasional meetings with the Recreation Commission for guidelines and budget requests.

The number one problem is lack of funding to coordinate both operation and maintenance of any of the above. To illustrate: there is a lack of enthused volunteers who would be willing to accept responsibility of running recreation programs at no pay.

### **Goals and Objectives**

- To establish an enclosed multi-purpose center for all age groups (children, adult and senior citizen) that would encompass a complete gymnasium, swimming pool, workout rooms (Nautilus equipment), tennis courts, running track, meeting rooms (arts and crafts and adult education classes) and a day care area.
- To establish a Town Park
- To upgrade Wiley Park through design and implementation of a Master Plan for the land.

## **SECTION VIII GOALS AND OBJECTIVES**

### **GOAL I**

*Encourage sustainable growth and development consistent with the carrying capacity of Eastham's natural environment.*

#### Objectives:

1. Decrease development intensity in sensitive areas.
2. Develop regulations which address rate, amount and impact of seasonal to year-round conversions.
3. Refine zoning by-laws and regulations.
4. Encourage other regulatory boards and commissions to develop new regulations.

### **GOAL II**

*Preserve and enhance the availability of open space in Eastham and protect wildlife habitat, recreation opportunities, and protect the natural resources, scenery and community character of the Town.*

#### Objectives:

1. Preserve natural resources through appropriate regulation.
2. Increase recreational opportunities for all age groups.
3. Establish land acquisition program (see Criteria below).
4. Promote Cape Cod Pathways project.

### **CRITERIA FOR OPEN SPACE PURCHASES**

In consideration of the goals and recommendations of the Local Comprehensive Plan that call for protection of our community character, water supply, natural resources, and the development of future recreational opportunities, the Open Space Committee recommends the establishment of a land acquisition program based on any or all of the following criteria.

Properties that:

- Protect water quality; contribute to well-field protection district; provide accessory equipment sites for a potential water supply distribution system.
- Access the Chapter 61 tax abatement program: agricultural, forest, open space/recreation.
- Provide links to Cape Cod Pathways/Bikeways network; Capewide Greenbelt program where threshold criteria are met for wildlife habitat.
- Abut town conservation lands.
- Abut a body of water/marsh.
- Provide a potential town park, recreation or beach site.

## SECTION IX FIVE-YEAR ACTION PLAN

**GOAL I:** Encourage sustainable growth and development consistent with the carrying capacity of Eastham's natural environment

### ***FIVE YEAR ACTION PLAN:***

#### 1999 (Year 1):

1. Work with Long Range Planning Advisory Board to implement and monitor Eastham's Local Comprehensive Plan.
2. Work with Planning Board to amend subdivision rules and regulations to take advantage of the three open space dedication provisions in MGL Ch. 41 Subdivision Control Law.
3. Establish procedures to interface with Town boards, committees and commissions whose actions impact open space and recreation.
4. Assist hired planning consultant in focusing on updating current zoning by-laws and in drafting by-laws recommended in the Land Use section of the Local Comprehensive Plan.

#### 2000 (Year 2):

1. Monitor Open Space Plan.
2. Interface with appropriate Town bodies.
3. Review and monitor Local Comprehensive Plan implementation schedule.

#### 2001 (Year 3):

1. Monitor Open Space Plan.
2. Interface with appropriate Town bodies.

#### 2002 (Year 4):

1. Establish procedures to obtain relevant statistical information to update Open Space Plan.
2. Prepare Community Survey to obtain up-to-date information on land use issues.
3. Interface with appropriate Town bodies.

2003 (Year 5):

1. Distribute Community Survey; tabulate and analyze results for use in updating Open Space Plan.
2. Review and update Open Space Plan.
3. Interface with appropriate Town bodies.

**GOAL II:** Preserve and enhance the availability of open space in Eastham and protect wildlife habitat, recreation opportunities, and protect the natural resources, scenery and community character of the Town.

***FIVE YEAR ACTION PLAN:***1999 (Year 1):

1. Work with Conservation Commission and Natural Resources Officer to implement natural resources recommendations of the Local Comprehensive Plan.
2. Begin planning with Natural Resources Officer and Town Public Access Committee (PACE) to design and fund accessibility plans for each Town beach.
3. Develop land acquisition criteria including Town land in MGL Chapter 61 program.
4. Identify undeveloped parcels that meet land acquisition criteria.
5. Seek Selectmen and Finance Committee approval for land acquisition funding item in the Town capital plan.

2000 (Year 2):

1. Identify a north-south "spine" for the Cape Cod Pathways trail.
2. Promote improvements to existing bike paths as specified in the Local Comprehensive Plan.
3. Continue beach accessibility planning and design. Seek funding for completed plans.
4. Promote continuation of Recreation Commission Director position on year-round schedule.

2001 (Year 3):

1. Encourage Recreation Commission to enter into an agreement with a private resource for an indoor swimming program for all age groups.
2. Continue and complete beach accessibility program.
3. Review completion status of all Local Comprehensive Plan recommendations pertaining to Open Space.

2002 (Year 4):

1. Review actions taken to enhance Cape Cod Pathways program in Eastham.
2. Review actions taken to improve existing bike paths in Eastham.
3. Continue to monitor all items listed for previous years.

2003 (Year 5):

1. Review and update Open Space Plan.

APPENDIX A  
SPECIAL TOWN MEETING DEBT EXCLUSION BALLOT 2/14/96

TOWN ELECTION

Town of Eastham



EASTHAM, MASSACHUSETTS, 02542

OFFICIAL BALLOT  
FOR  
EASTHAM

WEDNESDAY  
FEBRUARY 14, 1996

POLLING HOURS  
10:00 AM to 7:00 PM

*Lillian Langetti*  
TOWN CLERK OF EASTHAM

TO VOTE MARK AN X IN THE BOX AT THE RIGHT

QUESTION 1

Shall the Town of Eastham be allowed to exempt from the provisions of proposition two and one half, so called, the amounts required to pay for the bonds to be issued in order to acquire approximately 63.63 acres of land located on North Sunken Meadow Road, North Eastham, Assessors Map Sheet 2, Parcel B30-14A, and shown on a plan entitled, "Plan of Land in North Eastham, Ma." prepared by Nickerson & Berger Inc. 260 Cranberry Highway, Orleans, Ma. for M. F. Roach Co., Petitioner/Owner, dated February 11, 1987, for general municipal purposes.

YES

NO

**APPENDIX B**  
**SPECIAL TOWN MEETING**  
**MINUTES**  
**February 15, 1996**

Pursuant to the provisions of the foregoing warrant, the voters assembled in the Nauset Regional High School Auditorium with a quorum of 169 voters present as the Moderator called the meeting to order at 7:20 p.m. The tellers were sworn to the faithful performance of their duties and the Town Clerk read the call of the meeting.

The following is a result of that meeting:

Article 1.

The Board of Selectmen moved and seconded that the Town vote to raise and appropriate or borrow the sum of \$1,190,000.00 dollars to acquire by purchase, 63.63 acres of land, located on North Sunken Meadow Road, North Eastham, Assessors Map Sheet 2, Parcel B30-14A, and shown on a plan entitled, "Plan of Land in North Eastham, MA" prepared by Nickerson & Berger Inc. 260 Cranberry Highway Orleans, Ma., for M.F. Roach Co., Petitioner/Owner, dated February 11, 1987, for general municipal purposes and subject to such terms and conditions as the Board of Selectmen shall impose, and provided that said acquisition is contingent upon completion of a G.L. c. 21E site assessment, and that based thereon a determination is made by the Board of Selectmen that acquisition of said land is in the best interest of the Town, and further to pay all principal, interest and other costs associated with the bonding, and that to meet this appropriation the Treasurer, with approval of the Board of Selectmen, is authorized to borrow said sum as authorized in G.L. c 44, Section 8 (16); and further that said appropriation is subject to passage of a debt exclusion vote (election held on February 14, 1996) pursuant to G.L. c.59, Section 21C.

Hand Count	Yes	212
	No	73

Passed necessary 2/3 vote

There being no other business to come before town meeting the Selectmen moved and seconded to dissolve Town Meeting.

A True Copy Attest:

*Lillian Lamperti*

Lillian Lamperti  
Town Clerk

**APPENDIX C**  
**KEY TO INVENTORY MAP OF CONSERVATION, RECREATION,**  
**HISTORIC AND MUNICIPAL SITES**

(See Inventory Map, Inside Back Cover)

USE CODE: M = Municipal; R = Recreational; C = Conservation; H = Historical

<u>KEY</u>	<u>USE</u>	<u>SITE</u>
1	M	Town Offices
2	M, R	Elementary School (see additional recreational sites)
3	M	Library
4	M, R, H	Windmill (see Historical Sites, page 89)
5	M	Highway Garage and Landfill
6	M	Evergreen Cemetery
7	M	Congregational Cemetery
8	M, H	Bridge Road Cemetery (see Historical Sites, page 89)
9	M, H	Cove Burying Ground (see Historical Sites, page 89)
10	M	Information Booth
11	M	South Sunken Meadow Landing and Beach
12	M	Cooks Brook Landing and Beach
13	M	Campground Landing and Beach
14	M	Thumpertown Landing and Beach
15	M, C	Cole Road Beach and Herring Run
16	M, C	First Encounter Site and Bees River
17	M	Boat Meadow Landing
18	M	Rock Harbor
19	M	Salt Pond
20	M	Hemenway Landing
21	M	Collins Landing
22	M	Great Pond Road Beach
23	M	Jemima Pond
24	M	Herring Pond Beach
25	C	North Sunken Meadow
26	C	Boat Meadow Marsh (east of bridge)
27	C	Boat Meadow Marsh (east of bridge)
28	C	Raddin Property
29	C	Deacon Paine Pond

<u>KEY</u>	<u>USE</u>	<u>SITE</u>
30-31	C	Nauset Spit parcels
32	R, C	Wiley Park
33	R	Eastham Land Company
34		(reserved)
35	R	Field of Dreams
36	M	Nauset Rod & Gun Club
37-57		Uncommitted
58-60		Easements
61	C	Rock Harbor Marsh
62	C	Boat Meadow Marsh (north of river)
63	C	Herring Brook Road
64	C	Herring River Marsh
65	C	South Sunken Meadow Marsh
66		Uncommitted - East end of Oak Leaf Road
67		Uncommitted - Portion of Great Marsh off Samoset Road
68	R	Nauset Regional High School
69-77	H	See Historical Sites, page 89
78	R	Lamont Smith Property
79	R	"Cottontail Acres" (Horton Property)
80	M	Police Facility
81	M	Fire Station
82	H	Old Schoolhouse Museum (see Historical Sites, page 90)
83	M	Roach Acreage
84	M	Council on Aging Building

**INVENTORY OF MUNICIPAL CONSERVATION, RECREATION AND HISTORIC SITES**  
 (See Key on Page 73; See Figure 6, Inventory Map)

KEY:   2  

SITE:   Eastham Elementary School  

SIZE:   11.4 acres      ZONING:   Residential      OWNERSHIP:   Town  

MANAGEMENT AGENCY:   School Committee  

FACILITIES:        Athletic fields, playground, trails, fishing, swimming

COMMENTS:        The grounds abut a fresh water pond which provides access for hiking and recreation.

KEY:   4  

SITE:   Windmill Green  

SIZE:   1.6 acres      ZONING:   Residential      OWNERSHIP:   Town  

MANAGEMENT AGENCY:   Board of Selectmen  

FACILITIES:        Windmill; millers on duty in summer; handicapped accessible

COMMENTS:        In addition to being a major attraction for visitors, the green is the site of the annual Windmill Weekend celebration in early September which draws thousands.

KEY:   11  

SITE:   South Sunken Meadow Landing and Beach  

SIZE:   2.73 acres      ZONING:   Residential      OWNERSHIP:   Town  

MANAGEMENT AGENCY:   Board of Selectmen  

FACILITIES:        Paved parking area

COMMENTS:        Used for fishing, swimming, sailing, windsurfing, hiking. One of the best bluefishing spots (some bass, too) for onshore fishing. Parking stickers required.

KEY: 12

SITE: Cooks Brook Landing and Beach

SIZE: 4.27 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Paved parking area; seasonal rest rooms

COMMENTS: Used for fishing, swimming, hiking. Sometimes productive bass and bluefish area. Parking stickers required.

KEY: 13

SITE: Campground Landing and Beach

SIZE: 2.2 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Paved parking area

COMMENTS: Used for fishing, swimming, sailing, windsurfing, hiking. Parking stickers required.

KEY: 14

SITE: Thumpertown Landing and Beach

SIZE: .91 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Stairway to beach; small paved parking area

COMMENTS: Used for swimming, fishing, hiking, bird watching. Parking stickers required.

KEY: 15

SITE: Cole Road Beach and Herring Run

SIZE: 1.05 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Culvert and gates for herring passage

COMMENTS: Best herring run; herring run through several gates to Bridge Pond to the east. Abuts land in recreation easement.

KEY: 16

SITE: First Encounter Site and Bees River

SIZE: 34 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen/Conservation Commission

FACILITIES: Bathhouse and benches; paved parking area

COMMENTS: Used for swimming, fishing, hunting, birdwatching, hiking, watching sunsets; historical marker on site commemorating "first encounter" between Pilgrims and Native Americans in 1620; ACEC area; Bees River is a herring run; parking stickers required.

KEY: 17

SITE: Boat Meadow Landing

SIZE: 8.3 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Hardened sand parking lot

COMMENTS: Used for fishing, swimming, hiking, hunting, birdwatching, sailing; parking stickers required.

KEY: 18

SITE: Rock Harbor

SIZE: 9.9 acres ZONING: Marina/Municipal OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Piers, boat ramp

COMMENTS: Public boat launching ramp maintained by Commonwealth of Massachusetts; partial handicapped access

KEY: 19

SITE: Salt Pond

SIZE: 6.4 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Small paved parking area; handicapped accessible area

COMMENTS: Used for shellfishing, birdwatching, boating, fishing, hiking, swimming; recreational shellfishing program every Sunday. Additional parking available at adjacent Salt Pond Visitors Center.

KEY: 20

SITE: Hemenway Landing

SIZE: 1.29 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Paved parking area; boat ramp

COMMENTS: Used for fishing, boating, hunting, swimming, birdwatching, hiking, shellfishing; within National Seashore

KEY: 21SITE: Collins LandingSIZE: .12 acres ZONING: Residential OWNERSHIP: TownMANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Small paved parking area; no restricted areas for vehicles of handicapped

COMMENTS: Used for fishing, shellfishing, boat access; dangerous access to Route 6.

KEY: 22SITE: Great Pond Road BeachSIZE: .9 acres ZONING: Residential OWNERSHIP: TownMANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Hardened sand parking area; boat ramp; protected swimming area with lifeguards; seasonal rest rooms

COMMENTS: Used for fishing, swimming, sailing, windsurfing, waterskiing (limited); outboard motors restricted to 50mph and use limited; parking stickers required

KEY: 23SITE: Jemima PondSIZE: .7 acres ZONING: Residential OWNERSHIP: TownMANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Small hardened sand parking area; night lights

COMMENTS: Good for fishing by youngsters; used for ice skating, birdwatching; outboard motors restricted to 3mph

KEY: 24

SITE: Herring Pond Beach

SIZE: .75 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Hardened sand parking area

COMMENTS: Used for swimming, fishing (pond is stocked), sailing, birdwatching; herring run beside parking lot; outboard motors restricted to 3mph; parking stickers required.

KEY: 25

SITE: North Sunken Meadow

SIZE: 12.4 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Marsh area abutting Massachusetts Audubon Society property; within ACEC

KEY: 26

SITE: Boat Meadow Marsh (east of bridge)

SIZE: 18.4 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for hunting; marsh area; within ACEC

KEY: 27

SITE: Boat Meadow Marsh (east of bridge)

SIZE: 3.2 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for hunting; marsh area; within ACEC

KEY: 28

SITE: Raddin Property (Dyer Prince Road)

SIZE: 5.5 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for hunting; marsh area; within ACEC

KEY: 29

SITE: Deacon Paine Pond

SIZE: .79 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Poor access to very small pond; best left passive

KEY: 30 & 31

SITE: Nauset Spit

SIZE: 2.0 & 8.7 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for birdwatching, fishing; foot traffic only on beach, vehicle access prohibited; tern nesting area; south end of spit migrates from year to year

KEY: 32

SITE: Wiley Park

SIZE: 44.1 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Paved parking area; bath house, playground, public telephone

COMMENTS: Used for swimming, fishing, picnicking, hiking; hunting restricted; parking stickers required

KEY: 33

SITE: Eastham Land Company (Ocean View Drive)

SIZE: 128.73 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: None

COMMENTS: Town beach possibilities; vernal pools; within National Seashore

KEY: 35

SITE: Field of Dreams

SIZE: 1.15 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Town Hall parking lot

COMMENTS: Recreational area including fields for Little League baseball, softball and soccer

KEY: 36

SITE: Nauset Rod & Gun Club

SIZE: 5.3 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: N/A

COMMENTS: Leased to a sportsmen's club

The following group of parcels is uncommitted:

<u>Key #</u>	<u>Size/Acres</u>
37	31.10
38	9.50
39	1.60
40	14.40
41	13.78
42	6.54
43	30.30
44	2.50
45	4.70
46	1.90
47	.25
48	1.52
49	1.53
50	.41
51	6.34
52	.90
53	21.60
54	4.00
55	.64
56	.85
57	2.60
66	.20
67	2.50

KEY: 58, 59 & 60

SITE: Easements

SIZE: 22.9/2.5/2.0 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: N/A

FACILITIES: None

COMMENTS: Conservation easements

KEY: 61

SITE: Rock Harbor Marsh

SIZE: 7.8 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for hunting, birdwatching; marsh area; within ACEC

KEY: 62

SITE: Boat Meadow Marsh (north of river)

SIZE: 5.4 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for hunting, birdwatching; marsh area; within ACEC

KEY: 63

SITE: Herring Brook Road (Nickerson Property)

SIZE: 25.26 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for birdwatching; hiking trails

KEY: 64

SITE: Herring River Marsh

SIZE: 13.5 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for birdwatching; within ACEC

KEY: 65

SITE: South Sunken Meadow Marsh

SIZE: 20.52 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: None

COMMENTS: Used for birdwatching; within ACEC

KEY: 66

SITE: East end of Oak Leaf Road

SIZE: .2 acres uncommitted ZONING: Water Resource Protection OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: None

COMMENTS: None

KEY: 67

SITE: Portion of Great Marsh off Samoset Road

SIZE: 2.5 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: None

COMMENTS: Used for birdwatching, hunting; marsh area; within ACEC

KEY: 68

SITE: Nauset Regional High School

SIZE: 15.0 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Regional School Committee

FACILITIES: Athletic fields, tennis courts (use scheduled by school)

COMMENTS: Summer recreation programs under direction of Recreation Commission

KEY: 78

SITE: Lamont Smith Property

SIZE: 26.8 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Conservation Commission

FACILITIES: Small parking area off Peach Orchard Lane (no handicapped spaces); marked trails for walking; small pond

COMMENTS: Used for hiking, birdwatching; hunting prohibited; connects to Rail Trail; within ACEC

KEY: 79

SITE: "Cottontail Acres" (Horton Property)

SIZE: 19 acres ZONING: Residential OWNERSHIP: Town

MANAGEMENT AGENCY: Board of Selectmen

FACILITIES: Small parking lot off Samoset Road; trails for walking, cross-country skiing; two (2) ponds both used for fishing and skating

COMMENTS: Property is southerly link with Eastham Glacial Pond Park; spans Jemima and Herring Ponds

**HISTORICAL SITES**

KEY	SITE	OWNERSHIP	SIGNIFICANCE
4	Windmill Green	Town	Dates from 17th century; nominated for National Register of Historic Places; tourist attraction and educational site; two millers in attendance
8	Bridge Road Cemetery	Town	Used for burials until the early 19th century
9	Cove Burying Ground	Town	Used for burials until the early 19th century; three Mayflower passengers are buried here; nominated for National Register of Historic Places
69	Swift-Daley House	Eastham Historical Society	Home of Nathaniel Swift (brother of founder of Swift Packing Co.)
70	Collins House (Nauset Road)	Private	Thoreau stopped over here on his walking tour of Cape Cod.
71	French Cable hut	National Park Svc	First French Cable came ashore here (Nauset Light Beach); listed in National Register of Historic Places
72	Millennium Grove	Private	Methodist revival meetings held here from 1829 on, attended by large crowds
73	Indian Rubbing Stone	National Park Svc	Used to sharpen arrowheads, tomahawks, etc., by Native Americans
74	Nauset Marsh/Harbor	National Park Svc	Visited by Champlain in 1605
75	Jeremiah's Gutter	Private	Used as passage from Cape Cod Bay to Town Cove/Atlantic Ocean by British during War of 1812
76	Fort Hill	National Park Svc	Site of Native American village; home of Rev. Samuel Treat, first minister in Eastham

**HISTORICAL SITES**, continued

KEY	SITE	OWNERSHIP	SIGNIFICANCE
77	Nauset Dunes	National Park Svc	Site of many shipwrecks; site of The Fo'castle, Henry Beston's Outermost House
82	Old Schoolhouse Museum	Eastham Historical Society	Museum displays objects from various facets of the town's history; housed in one-room schoolhouse built in 1869

**APPENDIX D****TOWN OF EASTHAM -- ACCESSIBILITY PLAN FOR BEACHES**  
*Five Year Plan Adopted 1996 by the Public Access Committee***I. Getting There**

<b>Year</b>	<b>Goal</b>	<b>Cost</b>	<b>Funding Source</b>
1	Extend walkway at First Encounter Beach to water level at shore line	\$100 - \$500	Beach account
1	Roadside signs and pictographs; printed matter for visitors	\$100 - \$500	Beach account
1	Relocate parking/drop-off spaces	none	
3	Additional beaches: Cooks Brook, Sunken Meadow	\$500 - \$1,500 per beach	Beach account
3	Different materials challenge level 1 walkways	\$500 - \$1,500	Beach account
5	Interpretive overviews	\$2,000 - \$5,000	Grant/matching grant

**II. Restrooms**

<b>Year</b>	<b>Goal</b>	<b>Cost</b>	<b>Funding Source</b>
1	Portable facilities with ramps	\$1,200	Beach account
1	"accessible"	\$1,800	Beach account
1	ADA-compliant	\$1,800 each; 1-2 units per year	Beach account
1	Begin renovation of fixed facilities	\$10,000	Capital outlay
3	Complete acquisition of ADA-compliant	\$1,800 each; 1-2 units per year	Beach account
3	Complete fixed facilities	\$25,000	Capital outlay, Town Meeting
5	Information Booth/upgrade to fixed facility	\$10,000	Grant/matching grant

## APPENDIX D, continued

**TOWN OF EASTHAM -- ACCESSIBILITY PLAN FOR BEACHES**  
*Five Year Plan Adopted 1996 by the Public Access Committee*

**III. Boating and Fishing Interests**

Year	Goal	Cost	Funding Source
1	Rock Harbor	none new facility	Public Access Board
3	Fresh water fishing facilities dock/curbs	\$3,000 - \$10,000	Grant/matching grant
5	Fishing habitat enhancement	\$500 - \$1,000	Grant/volunteers
5	Salt Pond, Hemenway Landing, Collins Landing, Boat Meadow Creek: ramp/dock	variable to \$10,000	Grants, capital outlay

**IV. Other Uses**

Year	Goal	Cost	Funding Source
1	Maintain Wiley Park challenge level 1 trails	minimal	
3	Develop picnic areas at Wiley Park	\$1,000	Grants, capital outlay
3	Herring Run sites	\$500 - \$1,000	Grants, capital outlay
3	Cape Cod Pathways connections	\$5,000	Grants
5	TDD at Information Booth	unknown	Grants, capital outlay
5	Swimming platform fresh water pond(s)	\$5,000	Grants, capital outlay
5	Equestrian facilities	\$500 - \$1,000	Grants/volunteers

**APPENDIX E**  
**GOALS AND OBJECTIVES**  
**January 1986 Open Space Plan**

**GOAL I**

*Encourage sensitive growth in the Town of Eastham.*

Objectives:

1. Explore and examine the priorities of Eastham residents, seasonal residents and visitors.
2. Explore possibility of securing town planner.
3. Study growth trends and develop Master Plan.

**FIVE YEAR ACTION PLAN**

1986 (Year 1):

1. Establish Eastham Environment Committee to monitor Open Space Plan implementation.
2. Seek funding for town planner -- full time or circuit riding, through grants and/or town meeting appropriation.
3. Hire town planner.
4. Form growth study group to:
  - a. Write and distribute questionnaire to establish citizen growth priorities.
  - b. Compile results of questionnaire and distribute to appropriate town committees and boards.
  - c. Determine possible courses of action for growth and distribute to appropriate committees and boards.

If objectives 2 and 3 are met, objective 4 may be changed to encompass ideas of planner.

1987 (Year 2):

1. Monitor Open Space Plan.
2. Assist town planner.
3. Lobby for regulations and by-laws that will implement growth restraints.

1988 (Year 3):

1. Monitor Open Space Plan.
2. Form committee to assist Planning Board in updating Master Plan.

1989 (Year 4):

1. Monitor Open Space Plan.
2. Communicate Master Plan to town citizens.

1990 (Year 5):

1. Review and update Open Space Plan.
2. Review Master Plan.

**GOAL II***Protect and conserve Eastham's water resources.*Objectives:

1. Establish guidelines for protection of water resources.
2. Establish guidelines for anticipating water use.
3. Study eutrophic ponds.
4. Establish water education program for all age groups.
5. Assist in all public and water studies.

**FIVE YEAR ACTION PLAN**1986 (Year 1):

1. Set up local water resources committee.
2. Participate in Clean Lakes Study as required.
3. Identify additional recharge areas.
4. Develop water education program for adult level.
5. Project water use for next ten years.
6. Continue citizen sampling for private well studies and other studies related to water resources.
7. Establish watershed overlay zone.
8. Write regulations for watershed zone.
9. Establish one-acre zoning.
10. Continue participation in Clean Lakes Study.

1987 (Year 2):

1. Establish locations for monitoring wells and identify funding sources.
2. Write mini-courses on water for schools.
3. Obtain funding for Clean Lakes implementation.

1988 (Year 3):

1. Encourage separate Board of Health.
2. Acquire land for additional recharge areas.
3. Develop slide program for presentation to visitors and tourists on water resources.
4. Develop regulations for water testing in all rental units.
5. Install monitoring wells.

1989 (Year 4):

1. Acquire land for recharge.
2. Continue educational programs.
3. Study monitoring well results.

1990 (Year 5):

1. Acquire land for recharge areas.
2. Re-evaluate population projections and water needs.
3. Re-evaluate town plans based on monitoring well studies.
4. Participate in the update of town's Open Space Plan.

**GOAL III**

*Preserve Eastham's open space and natural resources and encourage respect for and appreciation of these amenities.*

Objectives:

1. Preserve natural resources through appropriate regulation.
2. Preserve open space through effective town planning.
3. Establish land acquisition program.
4. Identify areas providing habitat for rare species and exemplary natural communities in town.

**FIVE YEAR ACTION PLAN**1986 (Year 1):

1. Distribute Open Space Plan.
2. Identify land for acquisition.
3. Secure funding at Town Meeting for land acquisition.
4. Establish public relations committee to develop methods for marketing Open Space Plan.
5. Present land acquisition proposal at Town Meeting.
6. Write regulations for ACEC use.
7. Write management plan for open space use.
8. Encourage Planning Board to overlay construction set-back zoning by-law for ACEC.
9. Establish, through Town Meeting, a permanent land acquisition committee.
10. Establish *ad hoc* committee to work with Massachusetts Natural Heritage Program to identify rare species habitat and study ways to protect such habitat. Also to discuss with above group and National Seashore preservation of Eastham Moors.

1987 (Year 2):

1. Review regulations for open space use.

1988 (Year 3):

1. Acquire additional land for open space and water protection.
2. Continue review of all open space and conservation regulations.

1989 (Year 4):

1. Review Open Space Plan.
2. Continue review of all conservation regulations.

1990 (Year 5):

1. Update Open Space Plan.

**GOAL IV**

*To encourage interest in and protection of the historical value of the Town of Eastham.*

OBJECTIVES:

1. Establish Historical District.
2. Educate visitors in the history of the town through talks and tours.
3. Publish a brochure on the history of Eastham.

**FIVE YEAR ACTION PLAN**

1986 (Year 1):

1. Establish historical committee.
2. Locate and photograph historical houses and sites.
3. Write brochure on Eastham history and distribute.
4. Write historic program for summer visitors. Recruit presenters.
5. Establish historic district overlay zone.

1987 (Year 2):

1. Write Eastham's history mini-courses for schools.
2. Acquire additional land for parks in historic district.

1988 (Year 3):

1. Develop park in historic district.

1989 (Year 4):

1. Acquire additional land or houses in historic district.
2. Participate in the updating of the town's Open Space Plan.

1990 (Year 5):

1. Identify and study other historic areas of Eastham.
2. Establish at least one more historic area.

**APPENDIX F****ABBREVIATIONS USED IN THE TEXT**

ACEC	Area of Critical Environmental Concern
CCC	Cape Cod Commission, formerly CCPEDC
CCNS	Cape Cod National Seashore
CCPEDC	Cape Cod Economic Planning and Development Commission
COA	Council on Aging
CZM	Coastal Zone Management
DEP	Department of Environmental Protection
EPA	Environmental Protection Agency
MNHP	Massachusetts Natural Heritage Program
PACE	Public Access Committee of Eastham
WRP	Water Resource Protection

*APPENDIX G*

**TOWN OF EASTHAM OPEN SPACE COMMITTEE MEMBERS**

Louis Carlsen, Chairman  
George Abbott, Vice Chairman  
Katherine Krouch, Clerk

Clifford W. Ambrose  
Terry Chesney  
Susan B. Horton  
Toni Stoker

Henry Lind, Liaison  
Robert Mumford, Liaison  
Jeff Havlick, Consultant

Contributors:  
Susan Peters  
James Killian  
Muriel Lightfoot  
Sandra Szedlak  
Daniel Shay  
Sue Beyle  
Elizabeth Pratt

**SECTION X  
PUBLIC COMMENTS**

The pages that follow are letters of review from the boards, commissions and officials listed below:

1. Board of Selectmen, Town of Eastham
2. Town Administrator, Town of Eastham
3. Planning Board, Town of Eastham
4. Cape Cod Commission, County of Barnstable



# CAPE COD COMMISSION

3225 MAIN STREET  
P.O. BOX 226  
BARNSTABLE, MA 02630  
(508) 362-3829  
FAX 508) 362-3136  
E-mail: frontdesk@capecodcommission.org

6/22/98

June 16, 1998

Joel Lerner  
Executive Office of Environmental Affairs  
Division of Conservation Services  
100 Cambridge Street  
Boston, MA 02202

Dear Mr. Lerner:

The Cape Cod Commission staff has reviewed Eastham's March 1998 Open Space and Recreation Plan and believes that it contains goals, policies and standards consistent with Barnstable County's Regional Policy Plan as well as the town's certified Local Comprehensive Plan.

The Town of Eastham faces a number of challenges as it seeks to encourage continuance of the existing fiscally favorable mix of seasonal to year-round dwellings and maintain its level of service of protected open space. Over the next few years we will also be working closely with Eastham residents and officials to identify and designate Cape Cod Pathways connections with the towns of Wellfleet and Orleans. This work has already begun in conjunction with Cape Cod National Seashore. We understand that the development of this Open Space and Recreation Plan is an important step in setting local priorities and obtaining state acquisition funds. We hope that you will approve this plan so that the town will be eligible for future Self-Help funding for land acquisition and improvement projects.

Sincerely,

A handwritten signature in cursive script, appearing to read "Armando J. Carbonell".

Armando J. Carbonell  
Executive Director

cc: Henry Lind, Natural Resources Officer  
Vicky Sebout, Cape Cod Commission



# TOWN OF EASTHAM

2500 STATE HIGHWAY, EASTHAM, MA. 02642-2544

(508) 240-5900  
FOR ALL DEPARTMENTS

February 17, 1999

Mr. Joel Lerner  
Executive Officer of Environmental Affairs  
Division of Conservation Services  
100 Cambridge Street  
Boston, MA 02202

Dear Mr. Lerner,

The Planning Board of the Town of Eastham has reviewed the Open Space Plan prepared by the Open Space Committee. On behalf of the Board, I would like to express our support for the policies and goals outlined in the plan.

Eastham has been experiencing a great deal of growth in recent years and it is important for a plan to be in place for the protection of the Town's existing open space resources, as well as for acquisition of additional land. We are pleased to see that the Open Space Committee is working on accomplishing these tasks.

Sincerely,

Alan Morrell, Chair  
Eastham Planning Board



# TOWN OF EASTHAM

2500 STATE HIGHWAY, EASTHAM, MA. 02642-2544

(508) 240-5900  
FOR ALL DEPARTMENTS

February 23, 1999

Mr. Joel Lerner  
Executive Officer of Environmental Affairs  
Division of Conservation Services  
100 Cambridge Street  
Boston, MA 02202

Dear Mr. Lerner:

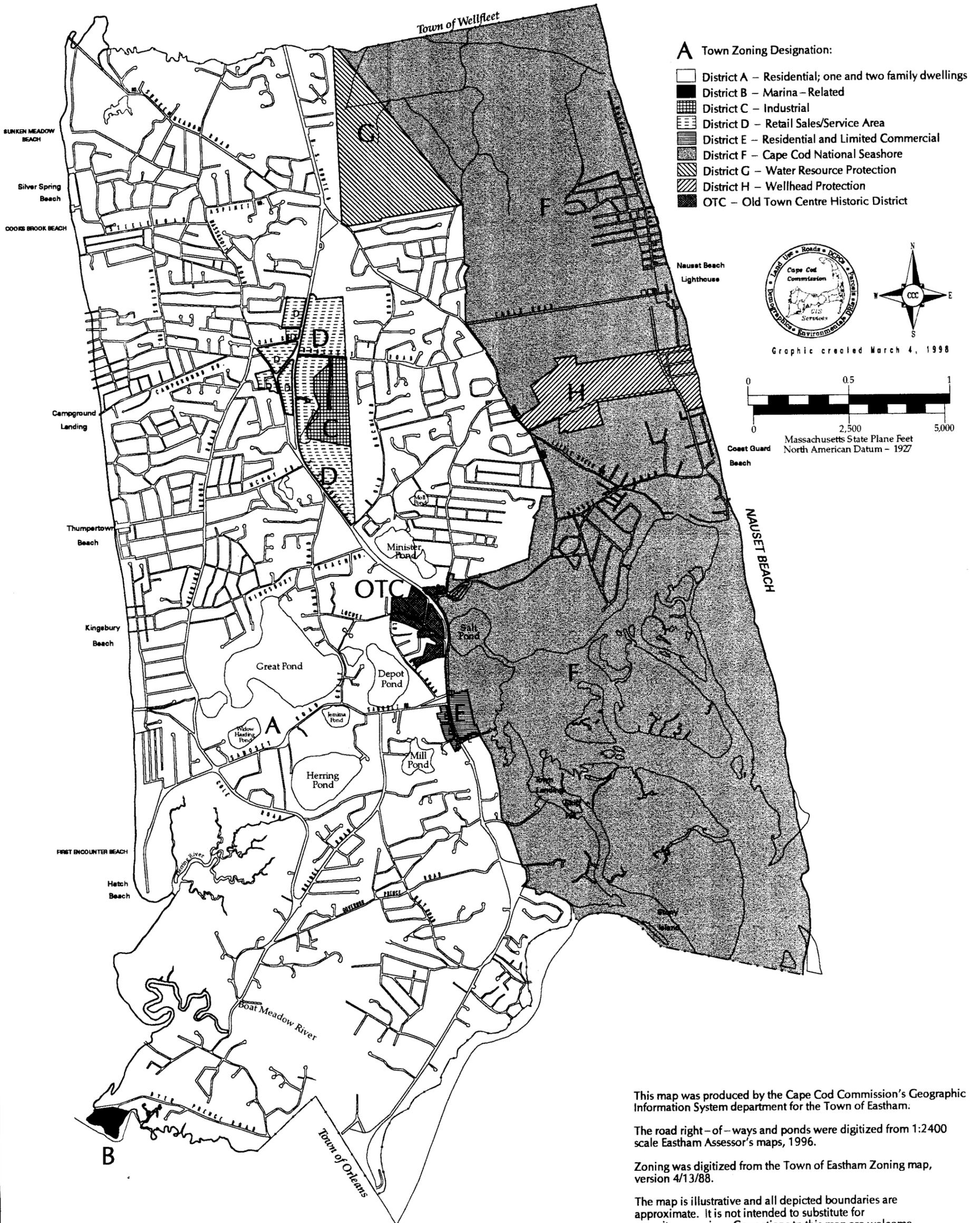
The Board of Selectmen for the Town of Eastham have reviewed the Open Space Plan, which was presented to them by the Open Space Committee. The Selectmen are very appreciative of the work done by this committee, and support the policies and goals of the plan.

The Town of Eastham, as is the case in most towns on Cape Cod, is experiencing a large amount of growth and development. The Selectmen are very thankful that the Open Space Committee has worked so diligently to make this plan available for the Town of Eastham, and to ensure our eligibility for open space assistance grants.

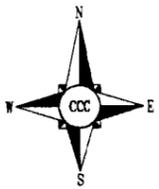
Sincerely,

Thomas L. Newton  
Chairman

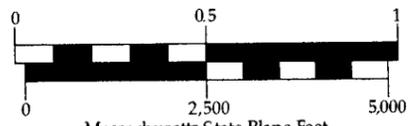
# Town of Eastham Zoning



- A** Town Zoning Designation:
- District A – Residential; one and two family dwellings
  - District B – Marina – Related
  - ▨ District C – Industrial
  - ▩ District D – Retail Sales/Service Area
  - ▧ District E – Residential and Limited Commercial
  - ▦ District F – Cape Cod National Seashore
  - ▤ District G – Water Resource Protection
  - ▣ District H – Wellhead Protection
  - ▢ OTC – Old Town Centre Historic District



Graphic created March 4, 1998



Coast Guard Beach  
Massachusetts State Plane Feet  
North American Datum - 1927

This map was produced by the Cape Cod Commission's Geographic Information System department for the Town of Eastham.

The road right-of-ways and ponds were digitized from 1:2400 scale Eastham Assessor's maps, 1996.

Zoning was digitized from the Town of Eastham Zoning map, version 4/13/88.

The map is illustrative and all depicted boundaries are approximate. It is not intended to substitute for on-site surveying. Corrections to this map are welcome at the Cape Cod Commission's office.