Town of Eastham

Local Comprehensive Plan

Third Edition 2012

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INTRODUCTION

In 1990, the Cape Cod Commission was established and charged with the preparation and implementation of a regional land use policy plan. In 1991, the Commission adopted the Regional Policy Plan which has since been updated effective January 16, 2009 as amended June 18, 2010. The Plan was designed to help local planning committees identify important goals and policies for their towns, and to help fund and develop established guidelines for the development of local comprehensive plans.

Eastham is one of fifteen (15) towns on Cape Cod (Barnstable County). The boundaries of the Town are dominated by its coastlines (the Atlantic Ocean to the east and the Cape Cod Bay to the west), both approximately four and one-half (4.5) miles in length, and by the Towns of Wellfleet to the north and Orleans to the south. Eastham lies at the base of the outer arm of Cape Cod, ninety-two (92) miles from both Boston and Providence, R.I. The Town has approximately fourteen and one-quarter (14 ¼) square miles of upland (9,120 acres) of which nearly one-third (3,000 acres) is within the United States Department of the Interior, National Park Service. Eastham has the distinction of being the gateway to the National Park Service Seashore. Topography in this area of the Cape is relatively flat, with a high point of seventy (70) feet along its northeastern coastline. The beauty of the Town attracts year-round and summer residents alike.

The Local Comprehensive Plan provides the framework for local decision making. The Plan includes Goals and Policies that will guide the Community in protecting those small-town qualities that are cherished by those who live and work here. The Plan also includes an inventory of the Town's resources, an analysis of present and future concerns, and recommendations which reflect our goals and policies. Finally, the Plan identifies specific actions designed to implement the recommendations of the Plan.

Eastham's many Boards and Committees, local organizations and town departments contributed to the Plan. They represent a variety of local interests, including health and human services, natural resources, open space, affordable housing, historic preservation, as well as our local Chamber of Commerce. The Plan was developed with their assistance. The Long Range Planning Advisory Board conducted numerous public meetings, gathered data from public sources, and distributed and tabulated the responses from public opinion surveys.

Special assistance was provided by the Cape Cod Commission staff in preparing subsequent drafts and final Plan.

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COMMITTEE STATEMENT

Eastham has the distinction of having the first Pilgrims land on its shores. The landing location is "First Encounter" beach, located at the end of Samoset Road which runs west from Town Hall to the Bay. This happening occurred December 8, 1620.

On June 7, 1651 the "Town of Nawsett" became known as Eastham.

Eastham founders and forefathers left legacies for all of us to enjoy and follow. With our history and culture our Town has retained much of its special historical qualities.

Today, we must look to the future and chart our course into the year 2012 and beyond.

Modern technology, applied intelligently, can change the face of the earth. But how Eastham should be changed can be debated until we are literally covered with concrete and surrounded by high-rises. Present efforts must reserve what is reasonable to preserve for future generations to enjoy and out of respect for the efforts of past generations. The Nauset Indians and the Pilgrims have left us a generous bequest which is worthy of care and protection.

The Nauset Indians walked these grounds many years ago. Our forefathers, the Pilgrims, followed suit. We, who are presently entrusted with formulating plans for the future of Eastham, must do our best to preserve the essence of these grounds. We will be judged for the courage we demonstrate in our comprehensive planning.

Eastham, planning for the future, is identified by the phrase: "maintenance of community character." This is expressed as a desire to produce, in effect, high quality drinking water, a continuance of our small town semi-rural atmosphere, maintaining our beaches, protecting and preserving our historic cultural resources and open space and natural resources. Little expression of the need for growth in our town has been heard. If and when growth occurs, it should be consistent with the carrying capacity of the Town's natural resources and community facilities and should reflect the desire of the Town.

Eastham is, and will continue to be, a caring community as evidenced by a strong interest in affordable housing for all residents in our Town who have such need, and by the continued strong support given to human services.

Members of the Long Range Planning Advisory Board 2009-2012
Kenneth Ainsworth
Richard Bryant
Tom Johnson
Bernard Kaplan
John Knox
Emilie Miller

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GLOSSARY OF TERMS

Affordable Housing – Dwelling units available at a cost of no more than 30% of gross household incomes for households at or below 80% of the area median income as reported by the U. S. Department of Housing and Urban Development (HUD) (including units listed under M.G.L. c. 40B and the Commonwealth's Local Initiative Program).

Algae – Any chiefly aquatic nonvascular plant.

Anadromous – Ascending rivers from the sea for breeding.

Background Traffic – The amount of traffic on the roadway system that is not created by new development and may include additional traffic traveling to locations within and through the town which originate outside the town.

Base Flood Elevation – Base flood elevations for the Town of Eastham are shown on maps prepared by the Federal Emergency Management Act (FEMA) as part of the National Flood Insurance Program (NFIP). The maps are held by the Building Department, Natural Resources Department and the Conservation Commission.

Biodiversity – The variety of species that occur within a given ecosystem.

By-right – A use allowed under zoning without requiring a special permit.

Catadromous – Organisms living in fresh water and going to the sea to spawn.

Coliform – Relating to, resembling or being the colon bacillus.

Cumulative Loading Analysis – A watershed-based nutrient loading analysis.

Cluster Development – A type of residential or commercial development that permits a reduction in lot area, frontage and setbacks to allow development to be clustered on the most appropriate portions of a parcel of land to create significant permanently protected open space within the property subject to a development application.

DBH – Diameter at breast height.

Density Bonus –Increases in the permissible density of population or intensity of a particular use in a proposed development usually in exchange for providing certain public benefits or amenities such as open space or affordable housing.

Dredging – Any dredging under a license or permit in an area which has not been previously dredged or which extends the original dredged width, depth, length, or otherwise alters the original boundaries of a previously dredged area.

Equalized Valuation – The full market value of all taxable property in town, both real and personal. determined by the Department of Revenue each year.

Flood Plain Zone – Those areas subject to coastal flooding and shown on the Flood Insurance Rate Maps.

Glacial Till – Unstratified glacial drift consisting of clay, sand, gravel and boulders intermingled.

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GPD – Gallons Per Day.

Impact Fees – A contribution paid by a person or other entity undertaking a development, to a municipality designed to offset the impacts of such development. Impact fees may include, but are not limited to, creation or improvement of streets, sewers, water supplies, parks, schools, affordable housing and similar capital facilities.

Maintenance Dredging – Dredging in accordance with a license or permit in any previously authorized dredged area which does not extend the originally dredged depth, width or length.

Macroalgal – Submerged aquatic vegetation.

Minimum Performance Standards – The basis for revising local regulations for future development in Eastham.

MIS – Management Information Systems.

No Discharge Zone – Areas usually within waterbodies where the discharge of wastewater or other hazardous waste is prohibited.

Outwash Plain – A very fine flat landform of sand and gravel sloping gradually to the shoreline.

Pervious –Having pores or openings that permit liquids or gases to pass through.

PPM – Parts Per Million.

Recharge Area – Surfaces which are permeable to water and allow precipitation to move downward to the groundwater table. Containment recharge areas include areas where septic effluent or hazardous materials are discharged and move downward to the groundwater. (Zones of contribution usually refers to specific recharge areas around a well, pond or lake which contribute precipitation/contamination recharge to the well, pond or lake.)

Site Coverage – The percentage of the total lot area covered by structures or roofs.

Strip Development – Continuous or intermittent linear roadside development located outside designated growth centers, generally one store deep, characterized by multiple roadway access and highly visible off-street parking.

Swales – A shallow depression constructed to temporarily hold precipitation runoff to allow that water to percolate into the soils and recharge groundwater.

Tax Title Lands – Parcels of land whose titles have been acquired by the town for failure to pay taxes.

Turbidity – Clouded as if with sediment.

Transfer Of Development Rights (TDR) – The conveyance of development rights by deed, easement, or other legal instrument to another parcel of land. A transfer of development rights program may be used to transfer the development rights from environmentally sensitive areas of a community, or sending zones, to designated areas within a community in which density may be increased, or receiving zones.

Vernal Pools – A seasonal fresh water body contained in an isolated depression that holds water for at least two consecutive months in most years, is free of adult fish populations, and provides breeding habitat for amphibians and invertebrates.

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Waterway Cut – A ditch or trench dug out so as to connect one body of water with another.

Working waterfront – An area of the shoreline where private/commercial dockage and services are available for vessels.

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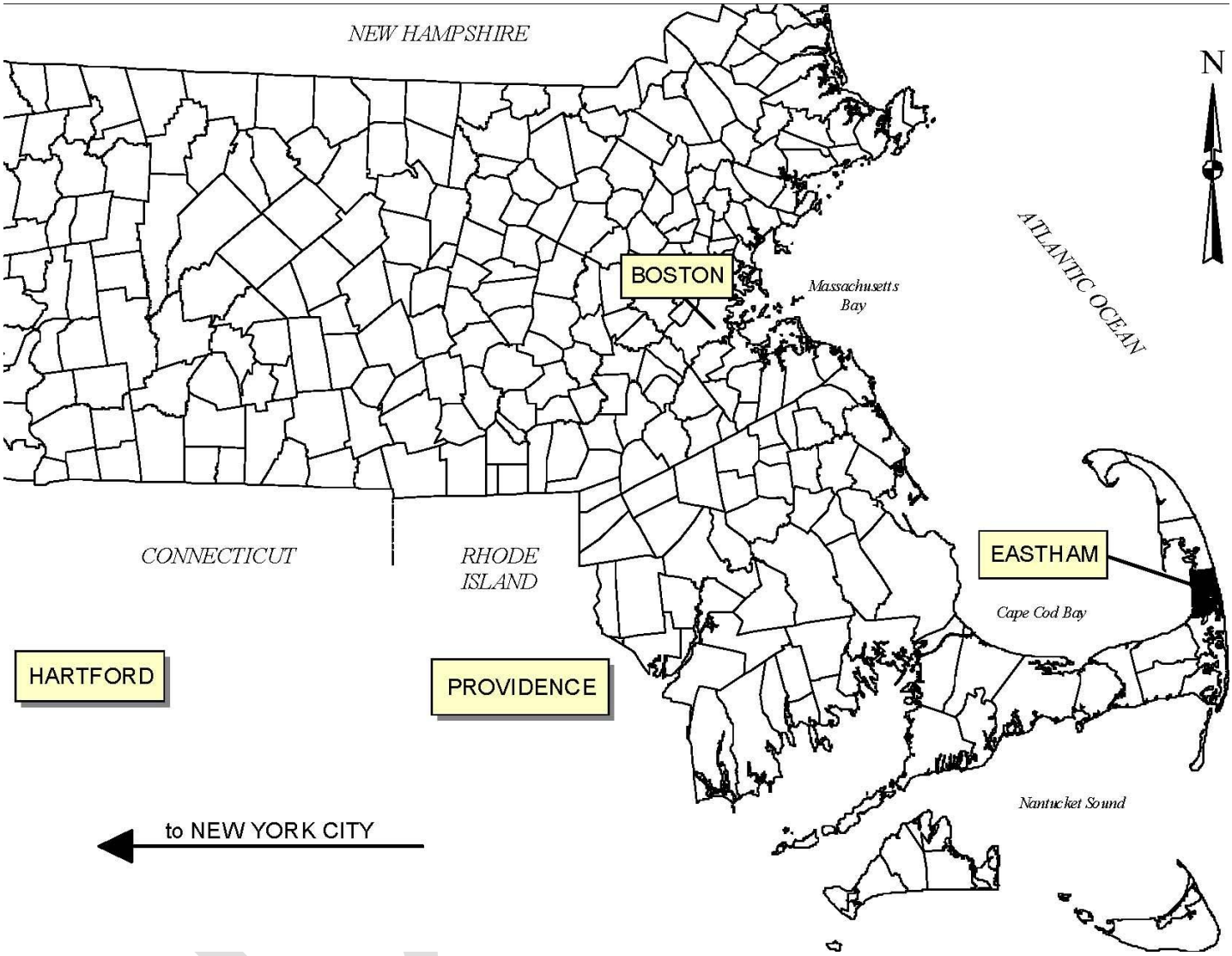
LOCUS MAP


NEW HAMPSHIRE
N
ATLANTIC OCEAN
BOSTON
Massachusetts Bay
CONNECTICUT
RHODE ISLAND
EASTHAM
Cape Cod Bay
HARTFORD
PROVIDENCE
Nantucket Sound
to NEW YORK CITY

I. PUBLIC OPINION SURVEY AND WORKSHOP

The Eastham Local Comprehensive Planning Committee conducted a series of public workshops on each of the Plan elements and distributed a Community Survey. Many of the issues identified by the opinion survey (2002) appear on the agendas of town committees and considerable work continues on these issues to develop strategies to address them.

The following table indicates the order of priority assessed by the respondents by age group:

Issue	0 - 40 years	41 - 50 years	51 - 65 years	65 + years
Population growth	1	2		
Water quality	2	3	1	2
Cost of service	3			
Education funding		1		
Over development			2	3
Transportation/traffic			3	1

Source: Local Comprehensive Planning Committee Survey, 2002

Water quality, population growth, education funding and transportation/traffic were considered the most serious issues facing Eastham. The 41 - 50 age groups also identified education as a serious issue, and the 0 - 40 age group identified the cost of services as a serious issue.

Several of the key issues as identified in the community survey (water quality, population growth, transportation/traffic, education funding and the cost of municipal services) are addressed by goals, policies and recommendations provided in this Plan.

Additionally, other issues identified at a series of public workshops include:

- Development of an efficient public transportation system for residents and visitors,
- Establishing limitations on additional commercial development on Route 6,
- Creation of affordable housing,
- Education and employment opportunities,
- Improving health and human services for local residents,
- Promote economic development while protecting environmental resources and preserving historic character,
- Improve groundwater and surface water quality,
- Preserve and enhance open space and wildlife corridors,
- Plan for the overall growth and needs of the community.

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II. VISION AND GOALS

The vision and goals recommended in this Plan reflect the interests and issues expressed by residents of the Town. Additionally, the Cape Cod Commission's objectives as stated in the Regional Policy Plan for Barnstable County are considered.

Based on opinions gathered from public workshops, meetings with various Town Boards and civic organizations, the Long Range Planning Advisory Board enunciated the following overall vision statement:

> "A diversified community which honors its past as a fishing and agricultural settlement, and current character as a modest, residential community which accommodates workers, vacationers and retirees."

Eastham's Overall Goals and Related Needs

- Protect/improve water quality and supply
- Improve sewage disposal systems
- Preserve the historic and rural character of the Town
- Ameliorate impact of Route 6 on rural Town character
- Reduce commercial sprawl and improve the appearance of commercial areas (Route 6)
- Improve Town Hall (exterior amenities) and Brackett Road areas
- Provide more affordable year-round housing
- Provide quality service for all residents including schools, recreation facilities, police and fire services
- Coordinate public and non-profit services
- Protect natural features and open space
- Protect wetlands and plant habitat/wildlife areas
- Encourage recreational and commercial marine activities
- Protect coastal areas from natural and manmade degradation
- Support sustainable economic development, year-round job creation
- Encourage conservation and reduce electric energy consumption
- Encourage the development and coordination of regional public transportation
- Promote and extend, if necessary, postsecondary education opportunities to enhance the Town's human resources

Achieving the Vision

Increases to the populations of Wellfleet, Truro and Provincetown will impact Eastham, including increased traffic congestion and safety concerns. The communities of the outer Cape need to review their development potential to determine what projected improvements may be required to accommodate such growth, and methods of growth management which will help to achieve the vision and goals of each community.

A major goal for the Town of Eastham is to increase the local employment opportunities for its citizens. Most employed residents must travel some distance to find suitable employment. Many local jobs are seasonal and do not pay very well. The construction sector of the economy has declined as the town has approached build-out. Expanding and remodeling existing homes will provide jobs in this sector but also eventually will diminish. The objective then is to provide jobs in new sectors.

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The area of Eastham currently zoned as industrial (Zone C) should be aggressively marketed as being suitable for light industry and a technology park. These uses would provide employment that provides goods and services beyond the local needs and therefore would have considerable growth potential. The increase in the tax base would also decrease the tax burden on the residents.

The Eastham Long Range Planning Advisory Board seeks a balanced approach to resolve potential conflicts inherent in achieving the above vision-related goals/needs expressed to the committee, such as balancing the need for improved traffic flow and safety along Route 6 with the desire of the Town to protect its historic and rural character. This Plan attempts to build on the historic and current data available, and to prepare a comprehensive framework for future policies which address the issues identified and which will guide the Town for the next twenty years.

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III. POPULATION TRENDS

The population of the Town of Eastham has grown from 1970 to 2010 from 2043 to 5488. The slowest growth of only 0.64% happened over the past decade adding only 35 people. The special characteristics of Eastham's population have a special impact on the community. The resident population continues to grow older. The median age remained fairly steady from 1970 to 1990, but increased substantially from 1990 to 2010 from 41.7 years to 56.8 years. Furthermore, there is a seasonal population component which boosts demand for services. In 1990 the summer population was estimated to be 21,800 and by 2000 it was conservatively estimated to be 27,500[*]. This is a twenty-six percent (26%) increase as compared with the twenty-two percent (22%) increase in the resident population during those years.

These dramatic changes in Eastham's population are supported by increasing income, increased mobility of people, the draw of the National Seashore and other natural attractions as well as by the general appeal of the character of the community.

Such growth and changes in population impacts the use of the land and existing infrastructures. The management of responses to this development will determine the extent to which the mission and goals of this Plan are achieved.

Table 1: Changes in Eastham's Population

Year	Population	Increase Over Previous Decade	Median Age
1940	582	-	-
1950	860	47.60%	-
1960	1,200	39.50%	37.5+/-
1970	2,043	70.30%	41.1
1980	3,472	69.90%	39.1
1990	4,462	28.50%	41.7
2000	5,453	22.20%	47.6
2010	4,956	-9.00%	39.1

Source: U.S. Census via Cape Cod Commission

Projections for various neighboring communities are shown in Table 2. The likely impacts felt in the town by this projected growth in population will include increased local and through traffic, demand for additional services and pressure for additional residential development or conversion from seasonal to year-round homes.

[*] *The summer population is not regularly estimated by a standard method. It consists of several groups of people including year-round residents, summer residents, shorter term guests and more transient weekenders. Of these only the first group is regularly counted. Nonetheless the capacity to house people is limited. Assuming five people per house during a peak summer period plus 1000-1500 in motels the total population is about 25,000. The Eastham Police Department has another estimate of 30,000 from the Town Clerk's office; thus the adjusted entry of 27,500. The actual summer population on any particular day would likely fluctuate around this number.

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Table 2: Population Changes for Barnstable County and Selected Outer Cape Towns

Town	2000 Population	2010 Population	Percentage Change	Population Change
Brewster	10,094	9,820	-3%	(274)
Chatham	6,625	6,125	-8%	(500)
Eastham	5,453	4,956	-9%	(497)
Harwich	12,386	12,243	-1%	(143)
Orleans	6,341	5,890	-7%	(451)
Provincetown	3,431	2,942	-14%	(489)
Truro	2,087	2,003	-4%	(84)
Wellfleet	2,749	2,750	0%	1
Lower Cape	49,166	46,729	-5%	(2,437)
Barnstable County	222,230	215,888	-3%	(6,342)
Source: U.S. Census and Cape Cod Commission				

Eastham's population steadily increased during the last half of the 20th century but has remained almost the same for the last 10 years. Over 50% of the houses are occupied only during the summer months and there is no indication that will change in the near future. Many of the summer residences are not constructed for winter use, but some upgrading has happened recently and is expected to continue. This has resulted in a larger population during the "shoulder months" surrounding the summer. Predicting long range population trends is difficult, but the population is not likely to increase significantly, since the town is at 95% build-out. Limited occupation opportunities make it very difficult for young families to live in Eastham.

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IV. LAND USE/GROWTH MANAGEMENT

Town of Eastham Goals and Performance Standards

The Cape Cod Commission through its Regional Policy Plan for Barnstable County has established overall planning goals and minimum performance standards for Land Use/Growth Management. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.[1]

The Regional Plan seeks to minimize adverse impacts on the land by using land efficiently and protecting sensitive resources, and to create vibrant communities by directing growth and redevelopment to appropriate locations.

In rural areas the goal is to preserve and enhance rural land uses, including agriculture, which are environmentally compatible with the Cape's natural resources in order to maintain opportunities to enjoy the traditional occupations, economic diversity, and scenic resources associated with rural lands.

Existing Conditions

Eastham is a rural residential, predominantly seasonal, community with approximately 5,900 year round residents. The town has experienced moderate growth over the past ten years and pressure for additional residential development including the conversion of seasonal homes to year-round homes persists. These changes have come at some cost to the community, as small scale "cottages" are replaced with large year round homes. The redevelopment of existing lots then, is of far greater concern in Eastham, than new development. There are very few parcels of "buildable" land in Eastham larger than ten acres that could be subdivided; therefore, the future of Eastham will be formed by commercial and residential redevelopment. The map on the preceding page shows existing land use (Map 1).

Additionally, commercial development in Eastham is located almost exclusively along Route 6 in low-density strip developments. However at two distinct locations, the development takes on the character of a village center; Brackett Road and Route 6 and Samoset Road and Route 6.

The original settlement of Eastham included area that is now the Town of Orleans. Eastham had a north and south parish and in 1797, the more populous south parish split from Eastham to become Orleans. Eastham and Orleans still maintain a functional relationship, with Orleans providing many important commercial services for Eastham and other lower Cape residents.

In the spring of 2000, the Town held a series of "vision" workshops in an effort to get community input on the future of Eastham. There was a general reaffirmation of the 1996 LCP vision:

"A balanced diversified community that honors its historic past as a small fishing and agricultural settlement, and current character as a modest residential, working vacation, and retirement community."

[1] See Cape Cod Regional Policy Plan (2002) pp 23-25.

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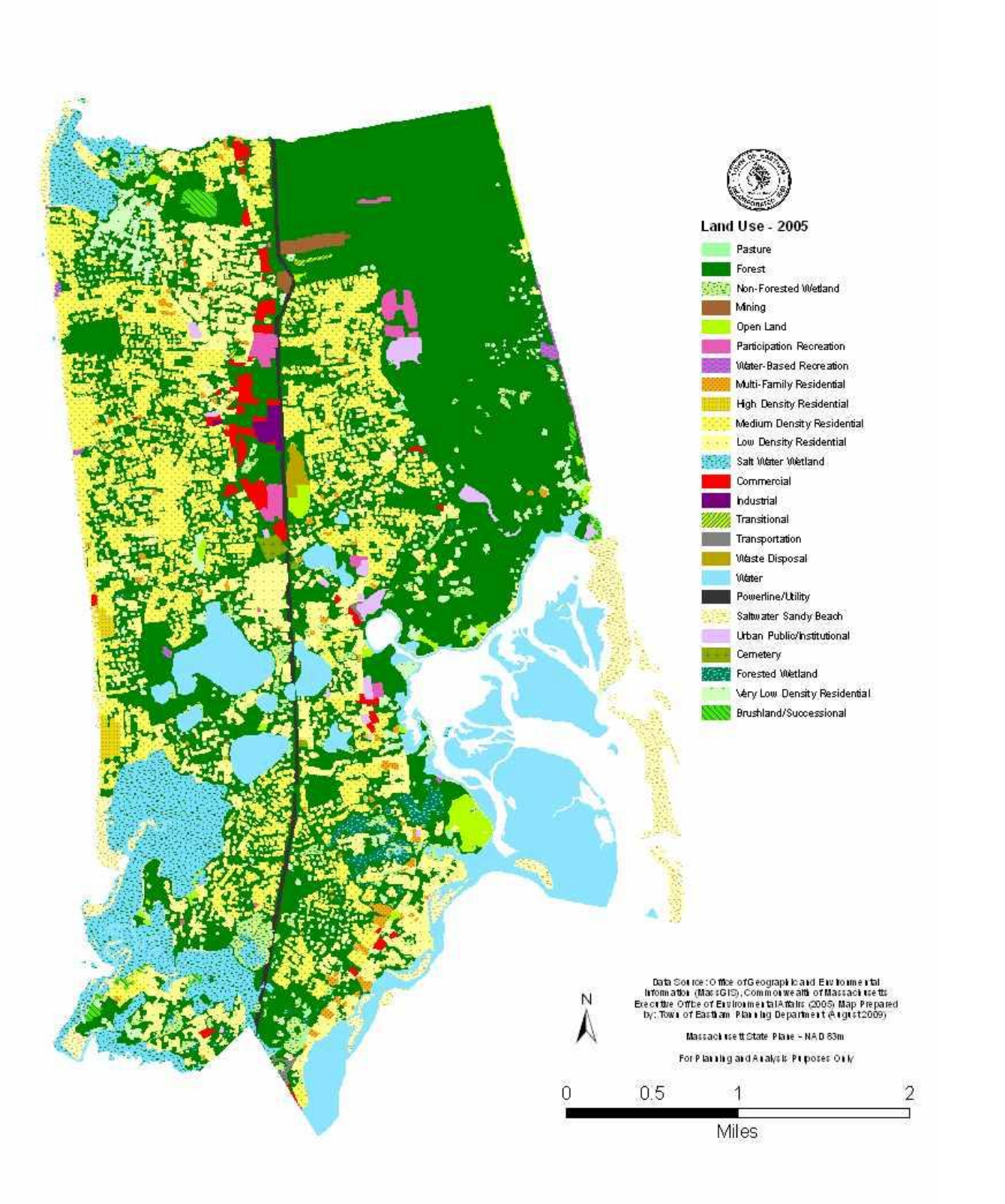
Map 1: Existing Land Use



Future Land Use Plan

A major problem in Town is the quantity of curb cuts and traffic flow associated with Route 6. This highway bisects the Town while simultaneously providing the only major artery or connecting road for residents. Other problems associated with this route include the visual appearance of existing commercial uses and their associated curb cuts which add to the congestion of traffic primarily during the summer season. (See also "Transportation", "Community Character" and "Implementation" elements).

The series of "vision" workshops held in the spring of 2000 also reaffirmed the general future land use plan of the 1996 LCP. The general distribution of uses in the plan include: residential uses along the western side of town, marine related uses in the southwestern corner, a mix of commercial, institutional and residential along the central axis (Route 6) and the Cape Cod National Seashore to the east. The recommended land use plan is shown in schematic form on the following page (Map 2).

Major future land use areas include:

Town Hall Area (See #1 on Map 2)
This area, which currently houses most of the Town facilities, including the Town Hall, Police and Fire Departments and the Library, should be maintained as a Town civic area. Nonresidential uses tailored to the needs of local and off-Cape residents including those using the Town facilities should be encouraged. Improvements should include enhanced landscaping, undergrounding of overhead utilities, parking, safe access, pedestrian and bus passenger amenities such as weatherproof shelters, lighting, trash receptacles, etc. to create a "pedestrian friendly" atmosphere. During the winter, sidewalks maintained free of snow and ice would also facilitate pedestrian travel. (See also "Transportation")

Brackett Road/Route 6 Area (See #2 on Map 2)
The Brackett Road/Route 6 area currently contains a retail center, an industrial area and a recently extended bikeway access to the Cape Cod Rail Trail. This area has the potential for mixed use and/or residences of slightly higher density. Improvements in the immediate vicinity of the intersection of Brackett Road and Route 6 should include enhanced landscaping, undergrounding of utilities, pedestrian and bus passenger amenities. (See also "Affordable Housing", "Transportation" and "Implementation")

Cape Cod National Seashore (See #3 on Map 2)
The Seashore is a major draw for visitors and seasonal residents to the area, and a major preserved recreation area for year round residents. This large portion of Town will see no change except for the possible expansion to include adjacent parcels to be added by gift or purchase, as they become available.

Tourist Business (See #4 on Map 2)
Located north of the Town Hall area, this sector accommodates commercial uses of high volume, such as: restaurants, motels and tourist retail services. Incentives should be developed to reduce the number of highway access points and improve pedestrian and bicycle connections in this area. Landscaping requirements for parking areas and highway frontage should be increased to improve the visual character of this area and to provide a more pedestrian-oriented scale.

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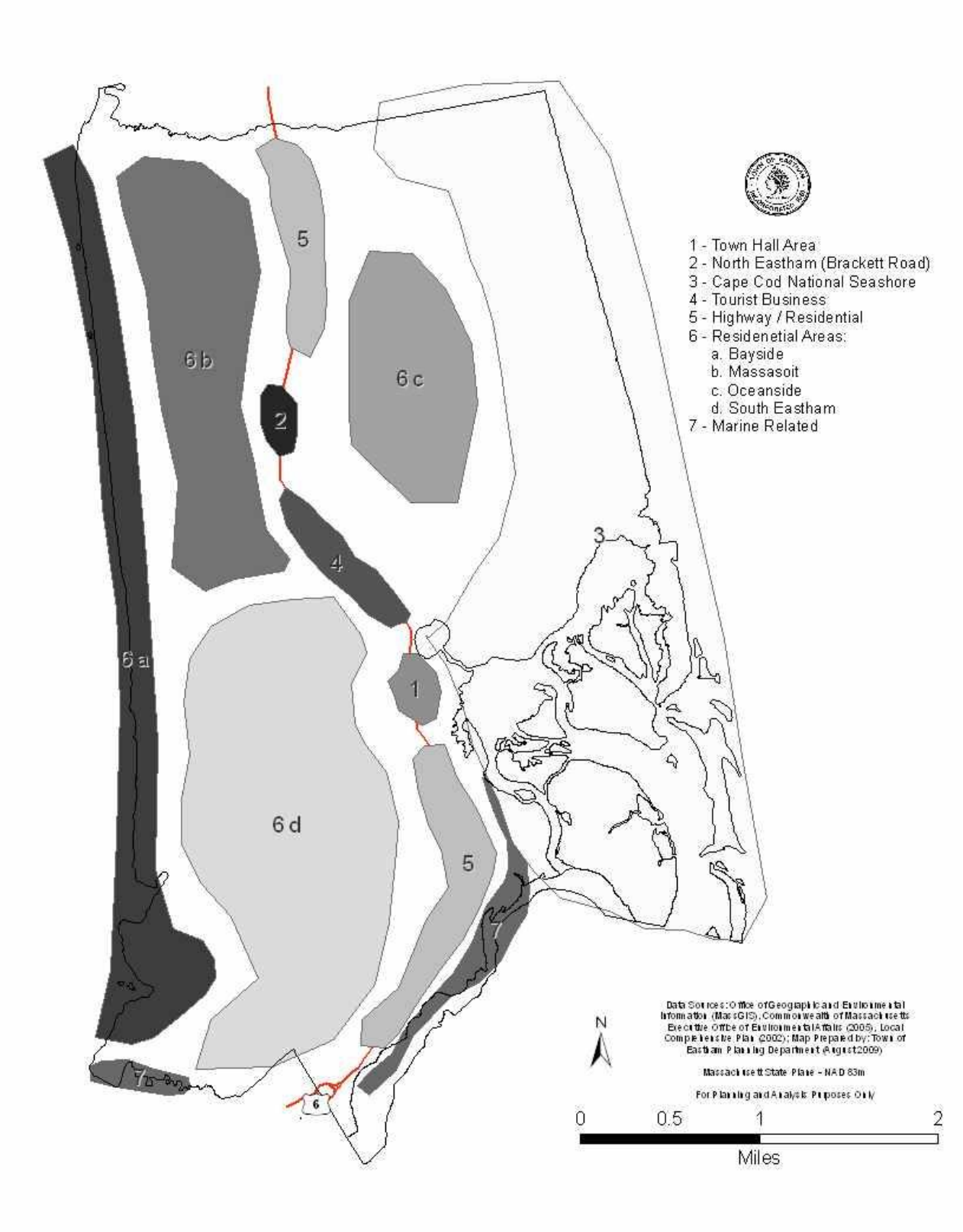
Map 2: Future Land Use



Highway/Residential District (See #5 on Map 2)
Located along the southern and northern sections of Route 6, this sector will allow buildings to be used for residences and businesses, providing the businesses retain Cape Cod architecture, and are adequately landscaped, with all parking in the rear.

Residential Areas (See #6 on Map 2)
Existing residential areas, which are most of the remainder of Town, are essentially one neighborhood, but are described and designated on Map 4, primarily for planning purposes. Cluster development should be encouraged in each of these areas, as appropriate, and where adequate land is available.

Marine Related (See #7 on Map 2)
Currently there are areas with landing and related service facilities for residents that should be maintained. The area at Town Cove is proposed as a Working Waterfront Overlay Zone. However, development pressures are forcing changes to that character which strong land use controls may be able to thwart. The town even investigated creating a DCPC in part of the town to impose a moratorium and thereby stop growth pending a full study.

Rate of Development

Table 3 shows building permits issued by type from 1997-2010.

Table 3: Building Permits per Year

Year	New Residence	Additions/Renovations	Total Residential Permits
1997	97	165	261
1998	111	209	320
1999	138	209	347
2000	93	222	315
2001	52	422	474
2002	39	528	567
2003	40	560	600
2004	37	546	583
2005	52	478	530
2006	33	419	452
2007	57	449	506
2008	11	385	396
2009	12	354	366
2010	15	397	412

Source Town of Eastham, 2011

Although there had been a significant decline in new construction, the last three years have been steady, while additions and renovations remain very strong.

Beginning in the 1960's, land was rapidly developed for residential purposes. By 1991, 33% of the land (3006 acres) was used for residential purposes and by 2000, 39% (3542 acres) of the land was used for residential purposes. The development continued and currently about 42% (4120 acres) of Eastham's land is so used. Overall development from the 1960's to 1991 was at the rate of 105 acres per year. During the 1990's the rate averaged 93 acres per year and thereafter about 83 acres per year.

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Table 4: Land Use by Acreage and Percentages, 1991 and 2008

Category of Use	1991 Acres	% of Town	2008 Acres	% of Town
Developed Land:				
Mixed Use (Residential/Commercial)	114.0	1.2%	353	3.0%
Residential	3,006.0	33.0%	3799	35%
Commercial	105.0	1.2%	320	3%
Industrial and Utilities	30.0	0.3%	112	1%
Exempt Property (Institutional)	644.0	7.1%	2413	22%
Total Developed Land	**3,899.0**	**42.7%**	**6997**	**64%**
Undeveloped Land:				
Developable				
- Residential	962.0	10.5%	293	2.7%
- Commercial	38.0	0.4%	4.19	.2%
- Industrial	25.0	0.3%	4	.2%
Undevelopable				
- Residential	363.0	4.0%	230	2.%
- Commercial	0.5	0.0%	4	0.0%
- Industrial	1.0	0.0%	1	0.0%
Open Space-Residential	23.0	0.3%	0	0.0%
Chapter 61 (Forest, Agric., Recreational)	97.0	1.1%	20	0.2%
Total Undeveloped Land	**1,509.5**	**16.6%**	**255**	**5.5%**
Cape Cod National Seashore	3,000.0+/-	32.9%	3000	27%
Roads and Water Bodies	712.0 +/-	7.8%	712	6.5%
Total Land	**9,120.5**	100.0%	10,912	100.0%

Source: Town of Eastham Assessor's Files, Although "total acres" as reported changed – that is the Assessor's Office report. There is some question about just how far ownership extends into the "dunes and beach' land.

This intensity of development and the related pressure placed on the Town have been dramatic. In addition, neighboring towns have also experienced similar development that has affected daily life in Eastham. Added tourism, especially related to the Cape Cod National Seashore and an increase in commercial development in Orleans have also contributed to an increase in both through and local traffic, especially along the Route 6 corridor.

Non-residential uses are predominantly commercial and situated along Route 6. They are principally in the form of restaurants, inns or motels, professional offices, public facilities, nurseries, gas service stations and storage facilities. These uses comprise only one hundred and thirty-five (135) acres, primarily located along Route 6 with corresponding level of service and safety impacts. Many of the commercial developments are designed in the roadside "strip" single story building style with no consistent appearance. Some have purposely retained a residential scale and style appropriate to the Town. There is an industrial district located off Brackett Road and a small district for marina-related uses to accommodate residential boating and fishing needs located in the southern-most point in Eastham along the Bay.

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Vacant Land/Build-out

Population projections look at trends in births, deaths, and migration. These trends are useful in estimating short-term growth within a community. A build-out projection is a means of checking a community's zoned development potential to see if full development fits within the natural/ manmade environment, capacity constraints and the community's vision of what it wants to become. The build-out projections in 1996 are shown in the table below. The actual build-up by 2007 is also presented in the last column of Table 5.

Table 5: Build-out Projections

Residential	**Low**	**Medium**	**High**	**Actual # of Units (2007)**
Additional residential units	733	1,150	1,781	
Total residential units at build-out	5,464	6,000	6,512	5,886
Non-Residential				
Retail (sq. ft.)	500,000	562,121	N/A	130
Industrial (sq. ft.)	327,000	367,343	N/A	24
Commercial (sq. ft.)	827,000	929,270	N/A	
Total				6,040

Sources:
Low projection prepared by Thomas Planning Services based on 70% of the total land area (adjusted for wetlands by assessors code, does not include large lots with additional development potential).
Medium projection prepared by CCC based on 78% of the total land area (adjusted for wetlands by site inspections, includes large lots with additional development potential).
High Projection prepared by Land Use Inc., based on 90% of the total land area (not adjusted for wetlands, includes large lots with additional development potential).- Number of units Eastham data.

Given the area of the Town and established zoning policies, growth, and development gradually approaches a limit. However, the Cape Cod demographic has never been entirely steady. Housing prices, retirement rates, birth rates, as well as national and worldwide economic conditions play a role. Surely the rate of progress toward build-out is influenced by external factors as well as the unique local circumstances.
The Cape Cod National Seashore, authorized by Congress in 1961, comprises one-third of Eastham (3,000 acres), including nearly all of its six and one-half mile Atlantic shoreline, from Orleans to Wellfleet. More than one hundred privately owned residential dwellings exist within the Seashore, most of which were constructed prior to the Seashore's creation. The Town also owns 25 acres fronting on the Atlantic Ocean.

Zoning Controls

The Town has already taken a number of steps to protect its natural resources, preserve its present land use pattern and prevent the continuation of strip development. Much remains to be done to balance the town's preservation desires against the commercial needs, and the need for affordable housing.

Residential: There are approximately 300 acres of vacant developable land and land with the potential for additional development. The potential build-out for Eastham under the current zoning is approximately 400 additional housing units resulting in a total of 6,236 units at build-out. Over the last 25 years Eastham has averaged 88 new housing units per year. Projecting at that average, Eastham would reach residential build-out

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by 2015. If the average annual rate for the last five (5) years were used (40 units per year) Eastham would reach residential build-out by 2022. In either case residential build-out is not far in Eastham's future. The build-out figures do not account for approximately 400 grandfathered lots that are below the current zoning requirements but are protected by their special status. While these lots could be built without regard to current zoning requirements, they are subject to other town bylaws and regulations, which in combination with the lack of sewer or water service reduce that number considerably.

Non-residential: There are approximately 19 acres of commercial land and 24 acres of industrial land available for development. If all the land is used, there could be eleven and one-half (11.5) acres or about five hundred thousand (500,000) square feet of gross floor area of commercial development and seven and one-half (7.5) acres or about three hundred and twenty-seven thousand (327,000) square feet of gross floor area of industrial development. It should be noted that although much of the industrial land has been inaccessible, accessibility is likely to increase in the near future.

Impacts of Anticipated Residential Growth

There are a number of additional impacts Eastham can anticipate with the expected increase in residential development and associated increase in population as shown below in Table 6. Table 6 provides the following information: existing conditions (60% seasonal/40% year-round) in the first column, a full build-out of vacant residential land with an increase in the conversion of seasonal units (40% seasonal/60% year-round) in the second column, and a full build-out of all vacant land with 100% year-round units) in the last column. Anticipated impact on town services for build-out has not changed.

Table 6: Anticipated Growth Impacts on Selected Town Services

Impacts	Existing	Build-out	Build-out
	(60%/40%)	(40%/60%)	(100%)
Number of year-round residential units**	2,308	3,600	6,000
Number of households**	1,908	3,200	5,600
Number of year-round persons per household (2.34 persons)**	4,460	7,488	13,104
Number of school children (14.5% of population)**	648	1,085	1900
Number of classrooms (4 per 100 students)	25	43	76
School Personnel (5 per 100 students)	32	54	95
Gallons of water per day (100 per capita)	210,800	360,000	600,000
** Based on 2000 U.S. Census data			

After reviewing Tables 2 and 3 major questions which arise include whether projected future development will change the character of Eastham, and how the Town will pay for the increased demands placed on municipal services by the development of the remaining vacant land and the possible conversion of seasonal to year-round

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housing units. Because of the configuration of the Town and its existing land use pattern, traffic problems along Route 6, fiscal constraints, lack of sewers, and a reluctance to designate growth centers, the Town has a limited number of options for meeting the goals of the Plan. Current zoning bylaws require planning board review for any substantial upgrade to structures on small lots. Enhancements to both the zoning bylaws and health board regulations could further minimize the negative effects of redevelopment of existing neighborhoods.

Recommended land use and zoning options incorporated into this section of the Plan include:

- Decrease development intensity in sensitive areas;
- Develop regulations which address the rate, amount and impact of seasonal to year- round conversions, for example require de-nitrification on lots of less than 2000 square feet;
- Continue to refine the Zoning By-laws, especially for commercial zones;
- Consider the use of a growth cap on the rate of residential construction;

Decreasing intensity in sensitive areas will involve not only prohibiting new development in such areas, but also prohibiting expansion or rebuilding. Sensitive areas may include lands in watershed protection areas, beach property and critical habitat areas identified in the "Natural Resources" section of this plan. Conversion rate regulations may be the most difficult to draft as there are not many existing examples in Massachusetts. However the town has a zoning by-law requiring a special permit when redevelopment results in a significant increase in habitable space. This approach may in the long term have a greater impact than decreasing the density on the remaining vacant residential land. Refining the zoning bylaws will also help to improve the appearance of and reduce traffic conflicts within commercial areas.

The Regional Policy Plan defines three types of Growth/Activity Centers, Village, Regional and Industrial. The village model focuses on pedestrian oriented residential and small scale commercial. The regional model focuses on densely developed commercial with some higher density residential. The Industrial model focuses on typical industrial uses, manufacturing and wholesaling. Each of these models requires a specific level of infrastructure development and community support services. Based on that fact the most suitable growth activity centers for the Town are the village and a “modified” industrial center.

Implementation

Joint Commission/Town Actions

The Commission will assist in mapping natural and cultural resource constraints, existing development and infrastructure, and undeveloped land in order to identify appropriate areas for designation as village, regional, and industrial Growth/Activity Centers and Growth Incentive Zones. The town, in consultation with the Commission and as consistent with their Local Comprehensive Plan, will map future land uses and develop a Land Use Vision Map consistent with the 2009 RPP. Growth/Activity Centers and Growth Incentive Zones should be supported by wastewater and other infrastructure that allows for higher densities, and should be coordinated with the Regional Infrastructure and Facilities (RIF) Plan to be developed by the Cape Cod Commission and the towns (see Chapter 4.4). Use of shared or neighborhood denitrifying systems in parallel with clustering development provides opportunities to direct growth to more appropriate locations and gain increased open space and environmental benefits.

Eastham and the Commission should continue their efforts to implement the Local Comprehensive Plans through changes in zoning and other local regulations.

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Recommended Town Actions

A. Develop cluster bylaws or ordinances consistent with the Commission's model bylaw/ordinance that require cluster development at the town's option. Towns should also adopt cluster provisions for commercial and industrial subdivisions.

B. Local zoning and regulations, including but not limited to lot sizes, parking requirements, under grounding of utilities, setbacks, and road widths, should be revised to permit village-style and mixed residential/commercial uses. Such development should be located in areas served or planned for service by appropriate wastewater treatment systems and other infrastructure.

C. Local bylaws and regulations, including clustering, increased lot sizes, overlay districts, and other techniques are encouraged to foster preservation of all areas located outside of Growth/Activity Centers and Growth Incentive Zones.

D. Consider making appropriate town-owned land available for agriculture, open space, and clustered affordable housing.

E. Continue to explore inter-municipal agreements to efficiently protect Eastham's resources.

F. Continue conducting public meetings of the Long Range Planning Advisory Board to obtain input from town committees, town departments and the public.

The following action items are advanced to achieve one or more of the goals of this section. Recommendations are broken down into zoning actions, subdivision actions, and other actions designed to address land use and growth management issues within the Town.

Zoning Actions

Eastham should:

A. Adjust its zoning to accommodate recommendations of the land use plan, e.g., adopt a Highway Residential District and a Working Waterfront Overlay Zone. Update Future Land Use Map (Map 2) during next LCP update.

B. Augment performance standards, e.g. for lighting, noise, and odors, as well as stormwater runoff and erosion control, by revising the zoning bylaws.

C. Amend the zoning bylaws to add language on curb cut control and develop a comprehensive curb cut strategy for Route 6. This strategy should be closely coordinated with the Cape Cod Commission and Massachusetts Department of Transportation to complement the planning activities of these entities.

D. Revise the zoning bylaws for building and parking setback and landscaping requirements for commercial developments.

E. Continue to study the possibility of working with N/Star and the state and consider funding of undergrounding of utility lines along town roads or on town-owned land in any area where the required poles, wires, cables, aerial transformers and other related electrical and telecommunications equipment are deemed visually intrusive and/or a safety hazard.

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F. Revise and reformat the Zoning bylaws and develop a Table of Use Regulations and a Table of Dimensional Requirements. Move towards greater alliance between the LCP and Zoning Bylaws.

G. Amend the Zoning bylaws to establish a multi-category threshold that would trigger special permit review of large/high traffic generating commercial and mixed-use developments.

H. Develop a zoning amendment that provides incentives for by-right cluster developments and shared access to residential and commercial developments by way of zero side lot lines or reduced parking requirements.

I. Revise Section IX, B setback requirements and Section XI landscaping requirements to provide for thickly vegetated buffers.

J. Prepare plans for the Town Hall and Brackett Road areas, to include sidewalks, footpaths, parking, pedestrian crossing, traffic mitigation, lighting, landscaping and under-grounding of overhead utilities.

K. Develop a comprehensive land use strategy to address existing and future traffic conflicts along Route 6. This strategy should minimally include exploring the following:

    - Purchasing vacant land as protected open space as identified in the open space plan
    - Increasing lot sizes for residential development on Route 6
    - Create incentives for commercial uses on Route 6 for shared curb cuts with adjacent properties
    - Creating greater incentives for infill and redevelopment in areas where coordinated access can be provided
    - Consideration of a Transferable Development Rights system as a means to relocate existing, poorly sited commercial development, and better accommodate future development potential in the corridor (using the Commission's model bylaw).

L. Explore measures to limit build-out throughout the Town including: down-zoning, land acquisition, a residential Transferable Development Rights as a means to send residential development to proposed mixed-use centers where residential units, including affordable units, could be more effectively served by advanced wastewater systems and public transportation.

M. Explore zoning measures to limit growth due to influence of municipal water and wastewater infrastructure i.e. "Growth-Neutral" bylaws

N. Amend the Zoning Bylaws to improve economic development opportunities in Eastham by furthering North Eastham Village Center concept plan as a new or overlay zoning district.

O. Create a by-right Cluster Subdivision bylaw with greater incentives i.e. density bonuses for affordable housing components.

Subdivision Actions

The Planning Board should:

A. Amend its subdivision rules and regulations to take advantage of the three open space dedication provisions in MGL, Ch. 41 Subdivision Control Law.

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B. Amend its subdivision rules and regulations to require the submitting of a preliminary cluster plan for new development of five or more lots.

C. Amend its subdivision rules and regulations to require natural drainage designs with buffers to wetlands.

D. Amend its subdivision rules and regulation to require separate drainage lots and access ways to drainage areas.

E. Amend its subdivision rules and regulations to require plan sheets showing regrading, landscaping and erosion control methods to be used on the property.

See “Land Use”, “Capital Facilities and Infrastructure” and “Transportation” in Implementation section.

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V. NATURAL RESOURCES - WATER RESOURCES

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and standards for water resources which recognize the linkage between high quality water for domestic use and the disposal of wastewater. Eastham's goals and standards are consistent with the Regional Policy Plan.

The goal is to maintain overall quality and quantity of Eastham's groundwater to ensure a sustainable supply of untreated high-quality drinking water and to preserve and restore the ecological integrity of marine and fresh surface waters.[2]

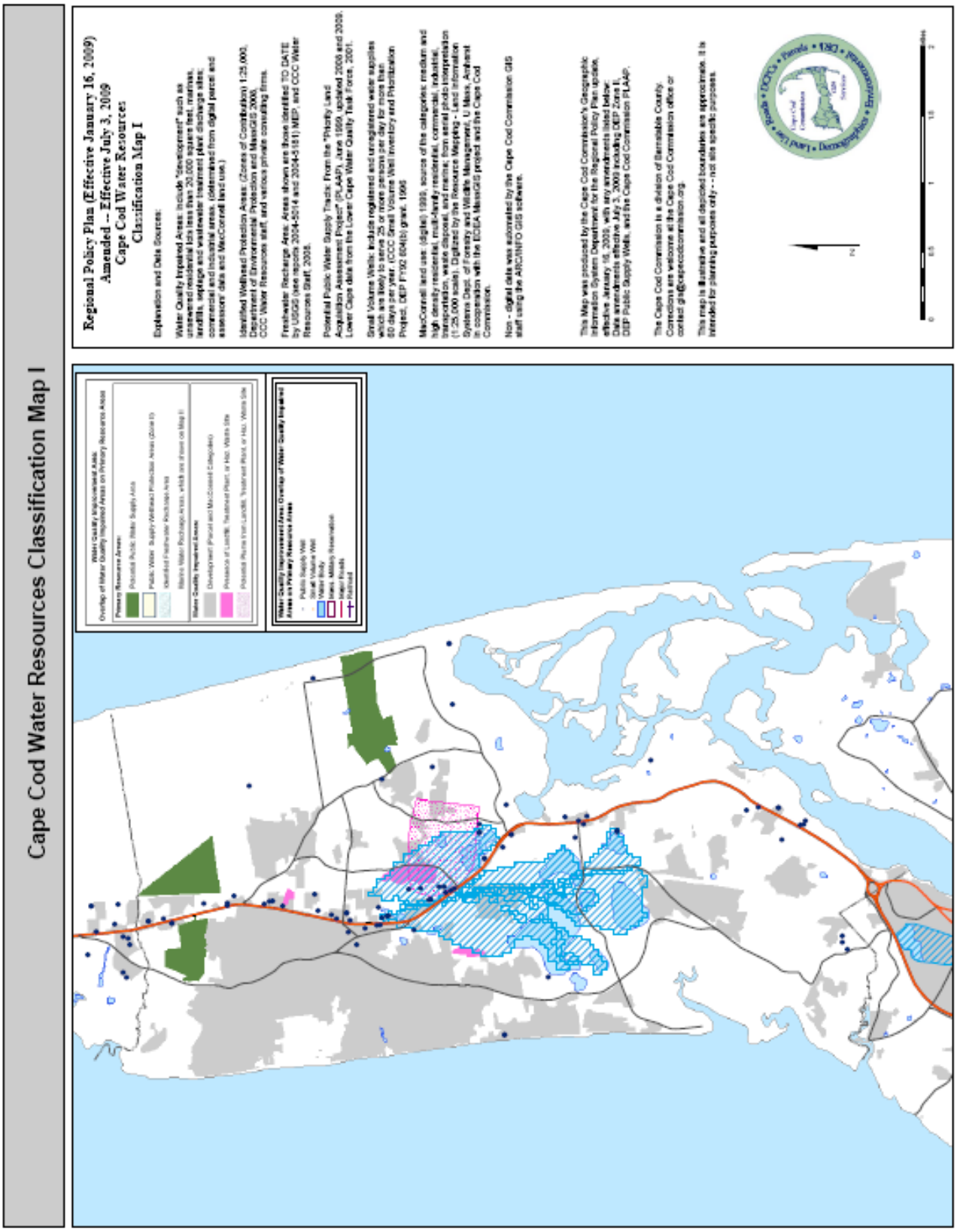
Existing Conditions

The Lower Cape Water Management Task Force between 1992 and 1998 studied the water supply and demand situation on outer Cape Cod. The Task Force's final report summarizes a wealth of data about water quality and quantity in Lower Cape towns, which was collected in this and some previous studies. The study concluded that most private wells in the area provide good quality drinking water, but that the increasing development density negatively influences the quality. Cross-contamination, for example when effluents from nearby contamination sources intercept wells, often causes problems. Current and future water demands were assessed, and criteria for siting potential public water supply wells were developed.[3]

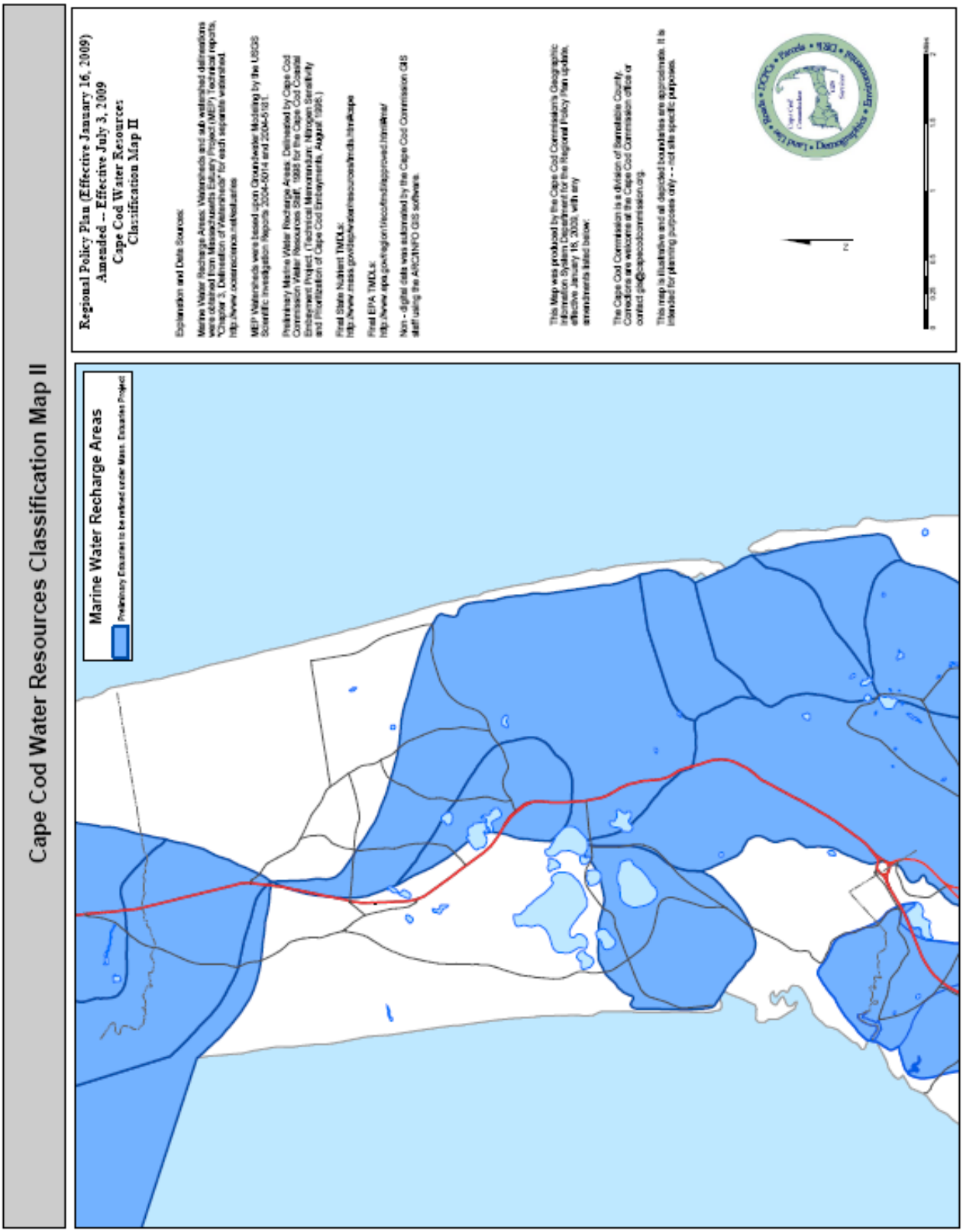
Eastham's Water Supply System: Eastham is fortunate to be essentially the sole user and major beneficiary of the Lower Cape aquifer's Nauset Lens (Maps 3 & 4). The northern-most reaches of the Lens are shared with Wellfleet and are used by the National Park Service to provide water for their headquarters area. Route 6 traverses the crest of this lens, which has a maximum water table elevation of 17 feet above mean sea level. With groundwater flows that are generally perpendicular to the lens' contour lines, this location makes the Route 6 corridor particularly hazardous with respect to the wide dissemination of contamination. That a large number of small volume wells are located within this corridor may have significant implications for economic sustainability whenever contamination leads to their failure.

[2] See Cape Cod Regional Policy Plan (2002) pp. 31-38 for performance standards.
[3] Sobczak, B.and T. Cambareri. 1998. Water Resources on Outer Cape Cod. – Final report of the Lower Cape Water Management Task Force. Cape Cod Commission. Barnstable, MA.

Map 3: Eastham Water Resources Classification Map I



Map 4: Eastham Water Resources Classification Map II



Water Delivery System: Eastham's water delivery system consists entirely of private wells. Most of these are on-site domestic water supply wells drawing about 200 gallons per day (gpd). Some are Small Volume Wells, serving various businesses, condominiums, and office buildings for which the withdrawal volumes can be substantially larger.[4] Currently, there are known to be 50 such wells of which seven (7) are non-transient/non-community public water supply systems, and 43 are transient/non-community public water supply systems. Eastham has 19 accounts near the Orleans town line are connected to the Orleans public water supply and special arrangements are used to provide water near the Transfer Station. Annual Town Meeting, in 2009, voted the sum of $3.15 million (also by debt-exclusion ballot) to:

> (1) Conduct pumping tests to establish the quantity and quality of water available from water supply wells in Eastham Water Protection Districts G, H, and Nauset Regional High School and work to include completing all required permitting and environmental reviews necessary to provide up to 1 million gallons per day (gpd) from each supply site.
>
> (2) Conduct an evaluation to determine all costs and the feasibility of obtaining 500,000 gallons per day or more of water from the Town of Orleans.

With knowledge of the quality and quantity of resources available both from Eastham and Orleans in this initial phase of determining availability of water supply, a comparative cost benefit analysis can be applied to determine the best option or options to supply a town-wide water system. The town-wide system would be designed to provide 1.8 million gallons per day peak capacity with extra design capacity to reach 2.5 million gallons per day. This article also provided for the Board of Selectmen to act as Water Commissioners and once the system is operational, to assess charges and collect fees.

Septage Disposal: No areas of Eastham are currently served by public sewers. Only on-site sewage disposal systems are used throughout the town, varying from cesspools to Title 5 septic systems to Title 5 systems with advance treatment. In recent years, a number of Alternative Septage Treatment installations have been installed to reduce nitrate nitrogen concentrations in effluent discharges. Eastham is a member of the Tri-Town Septage Treatment facility located in Orleans serving Eastham, Orleans, and Brewster. Much of Eastham's pumped sewage is processed there. In 2009, discussions regarding the partnership and the future of the Tri-Town facility began.

Potential Well Sites: Three potential sites have been identified for development of municipal water supply wells should such service become necessary.[5] These sites are located in Water Resource Protection Zoning District "G", and located in Well-field Protection Zoning District "H". District G lies in an area containing several town-owned "woodlot" parcels, and is relatively unthreatened by other land uses. District H lies in 120 acres of town-owned land, which was tested in 1970 as a possible municipal well-field site with a potential yield of 1 million gpd.[6] The third site is located at Nauset Regional High School. The existing well will be permitted to increase production capacity up to 1 million gpd.

Located within the National Seashore, District H is currently relatively unthreatened by other land uses. District H also contains a large number of vernal pools that are otherwise uncommon in the Town, ecologically significant, and protected by state and federal law.

[4] "Small Volume Wells" are defined and classified by the Code of Massachusetts Regulations, 310 CMR 22.00 under the Department of Environmental Protection (DEP) regulations as small community wells, non-transient/non-community wells, and transient non-community wells. These water systems are defined as "Public Water Systems" [310 CMR 22.02 (8)] if the system is used for the provision to the public of piped water for human consumption, if such a system has at least 15 service connections or regularly serves of at least 25 individuals for at least 60 days of the year.

[5] Zoto, G.A. and T. Gallagher, eds. 1988. Cape Cod Aquifer Management Project Final Report. Boston, MA.

[6] Whitman & Howard, Inc. 1970. Report on Proposed Water System: Eastham, Massachusetts. HUD Project no. P-Mass-3423P. Boston, MA.

In 1997, Eastham acquired a 64-acre plot of land (known as the "Roach Property") as open space "for general municipal purposes, to be used for whatever the town deemed most suitable"[7]. A land management plan prepared in 2001 identified development potential of this property for various public benefit applications envisions one-third of it as a public water supply area, and the Cape Cod Commission identified this property as a water resource. Subsequent investigative drilling on the property by the Cape Cod Commission in 2003 found that the site was underlain by clay and not suitable for water supply development. A USGS study of the Lower cape aquifer provides further information about these and other potential public well sites.[8] More recent studies[9] have further clarified the Roach Property's suitability for water or wastewater infrastructure; it has been eliminated as a productive source of water, but remains a candidate as a wastewater treatment and recharge area.

Potential Contamination Sources: The most common potential contamination sources for on-site domestic water supply wells in Eastham are the on-site sewage disposal systems on the same or adjacent lots. In several areas of Eastham there is a high density of disposal systems which can impact the water quality in surrounding wells. A consequence of this situation is the increase in nitrate loading which is summarized in the "Analysis" section. Concern about this trend prompted the Town to establish, in 2002, an annual nitrate screening program of all of Eastham's wells whereby each year one-third of them are sampled. The data collected provides information about the evolution of contamination patterns that can guide planning and regulatory actions. Some remaining potential contamination sources include underground gasoline storage tanks located mostly along Route 6 and buried on-site domestic fuel tanks, and releases from above-ground fuel storage tanks.

In recent years, the gasoline additive methyl tertiary-butyl ether (MTBE) has been found in Eastham's drinking water. MTBE, a substantial component of reformulated gasoline, is used to improve the fuel's combustion, thereby reducing air pollution. Unfortunately, MTBE's attributes of water solubility and extreme chemical stability make it a particularly stubborn pollutant. While the compound's deleterious health effects are suspected but not proven, its unpleasant odor at very low concentrations and its presence at levels above the federal limit of 70 parts per billion (ppb) at some locations in Eastham have caused much public concern. If detected at levels above 70ppb, there is potential for adverse health effects to occur.

At this time, several MTBE contamination sources have been identified in Eastham. Under the jurisdiction of the Massachusetts Department of Environmental Protection, effective containment and remedial actions are underway at all three sites. This experience indicates that Volatile Organic Compounds (VOCs), of which MTBE is an example, are contaminants that need to be carefully monitored once their presence has been established. VOCs have also appeared in wells at locations that make the landfill (capped during 1993 through 1997) their suspected source. In these cases, aromatic and chlorinated compounds that are known to be carcinogens have been detected, albeit below their federally mandated public drinking water standards. This situation prompted the Board of Health to institute a regulation that mandates VOC testing for all new construction and changes in the ownership of properties. From a public health perspective, it reinforces the need to monitor the quality of water on a Town-wide basis. The Water Quality Survey Program collects potable water samples from sectors of town every three years and analyzes the samples for nitrates. The Health Department tracks the data and prepares annual updates for the Board of Health and Water Management Committee. Over the last nine years over 10,000 samples have been analyzed for nitrate concentration as part of the Town Nitrate Testing Program to evaluate water quality.

[7] Horsley & Whitten, Inc. 2001. Draft: Roach Property Land Use Management Plan. Sandwich, MA.
[8] USGS, Scientific Investigation Report 2004-2014
[9] Stearns & Wheler. 2009. Wastewater Management Planning Project Plan Evaluation Report.

Analysis

The Town's main concern continues to be to maintain an adequate supply of drinking water and preserve its good quality for the foreseeable future. Steps that will help to ensure this outcome are:

1. Enforcement by the Board of Health and other responsible Town bodies, of bylaws and regulations designed to minimize the potential for water contamination. Given the demonstrated relationship between water quality and development density, particular caution must be exercised in the evaluation of requests for variances where increased use of a property is a factor.

2. Reduction of the use of chemicals such as fertilizers and pesticides that inevitably contaminate groundwater.

3. Active encouragement of water conservation.

4. Education and the dissemination of information about water protection will sensitize the public to the importance of water quality and what can be done to preserve it.

5. The continuation of systematic and regular monitoring of the quality of Eastham's well water. Knowledge of contaminant levels and their evolution over time can identify areas of concern and guide remedial interventions.

6. Requirement of double-walled above-ground heating oil tanks in conjunction with the Eastham Fire Department as a result of transfer of replacement.

Additional measures can include the judicious use of alternative septic systems and special regulations for environmentally hazardous situations. At the same time, the Town could take measures to ensure that areas which can serve as potential public water sources are legally protected as such, their capacity assessed, and additional areas which could serve as public water sources are identified.

As part of the Lower Cape Water Management Task Force study, the nitrate and sodium levels were measured between 1985 and 1994 for a large number of wells (more than 6,500) in Eastham, Wellfleet and Truro. The increasing nitrate levels observed during this period gave early indications of the continuing decline in water quality. To further explore this trend and its implications, the Water Resources Advisory Board initiated an annual program of voluntary nitrate screening of Eastham's well water. In 2002, an annual water quality monitoring program was instituted whereby one-third of the town's wells are sampled and tested for nitrate levels in three-year cycles. This procedure allows the evolution of nitrate levels in each section of the town to be compared at three-year intervals. The results for three cycles spanning nine years confirm the initial finding that the nitrate loading of Eastham's groundwater is slowly and continuously increasing.[10] This worrisome trend prompted the town in 2005 to undertake a comprehensive municipal water supply planning effort which envisioned a town-wide supply system implemented over two decades. Although the initial plan failed to be adopted, it did set the stage for future attempts based on alternative implementation approaches, including a phased approach to town-wide systems (ATM 2009).

In 2006, Eastham engaged consultants to commence a comprehensive wastewater management planning task. A plan of study has been devised, bearing in mind that the outcomes of the Massachusetts Estuaries Project's

[10] Water Resources Advisory Board. 2001. Report on Eastham Water Screening Project 2001. Eastham, MA. Town Data collection 2002-2011.

evaluation of the Rock Harbor and Nauset Marsh watersheds (which Eastham shares with Orleans) will significantly influence how the town addresses wastewater matters. Keenly cognizant of the connection between water and wastewater issues, Eastham's Water Resources Advisory Board and Wastewater Management Planning Committee have been meeting and operating jointly since 2005. The thorough merging of these committees has been adopted.

With respect to commercial point sources of contamination, stringent measures to guard against leakages from gasoline storage tanks are already mandated by law and are rigorously enforced by the town.

A regulation issued by the Board of Health in 2001 seeks to protect Environmentally Sensitive Areas (ESAs) (such as areas near marshlands, surface waters, tidal flats, etc.) by severely restricting the issuance of variances from septage disposal regulations in these locations. Significantly, areas where clusters of small lots (less than 20,000 square feet) exist are defined as environmentally sensitive.[11] Another Board of Health regulation requires annual water testing for rental properties.[12]

Freshwater ponds serve as a window on our drinking water supply. At the same time, they provide opportunities for recreational activities. Careful monitoring of these resources is imperative to protect against accelerated eutrophication and disruption of the normal aquatic processes. Impacts of the residential population on groundwater are transmitted to the ponds, a situation which calls for vigilance and increased attention to the mitigation of non-point contributions of contamination to groundwater.

Eastham's ponds have been annually monitored since 2002 by a group of volunteers (Pond Stewards) who collect samples at regular intervals for the measurement of nutrient loading and eutrophication indices. Freshwater ponds and marine beaches are tested weekly in the summers season for bathing water quality and that information can be found in The Marine and Freshwater Beach Testing in Massachusetts Annual Report (2009 Season). Preliminary evaluation of the accumulated data revealed all of the nine tested ponds to be impacted to varying degrees. This ongoing program is anticipated to provide guidance for preventative and remedial measures that will improve the condition of the ponds. For more information about Eastham's freshwater wetlands, see the Wetlands, Wildlife, and Habitat chapter of this plan. In 2011, the Town hired consultants to evaluate an action plan for eleven ponds and develop a remediation strategy for two ponds that will result in permit applications to proceed with treatment options.

Protection of coastal embayments is a key environmental issue in Eastham. Embayments are where shellfish live and much of the finfish population in the surrounding ocean originates. Each septic system located on the aquifer that is within contributing watersheds adds contaminants to the groundwater, which is then discharged into the embayments to the detriment of aquatic life. Non-point source contaminants from septic systems can include metals from plumbing, phosphate from detergents, and nitrogen from toilet wastes. Among these contaminants, nitrogen is of primary concern for coastal waters as it is the nutrient that tends to limit coastal productivity. Too much nitrogen leads to ecosystem-wide changes as the underlying plant communities are altered. Coastal ecosystems around Cape Cod are particularly sensitive to excessive nitrogen where it has been implicated in the decline of shellfish and finfish productivity, the loss of eelgrass beds, and increased algal growth.

These concerns define the motivation for the Massachusetts Estuaries Project. This undertaking is structured to determine the impact on coastal waters due to excessive nitrogen, identify the sources of this pollution and provide guidance for the restoration of water quality. Eastham has received preliminary information about the

[11] Eastham Board of Health Regulation. 2001. Section F(1) and F(2): Environmentally Sensitive Area.
[12] Eastham Board of Health Regulation. 1998. Section 4A: Rental of Premises to be used for Human Habitation.

condition of the Rock Harbor estuary it shares with Orleans and is awaiting the results for the Nauset Marsh watershed. These reports will culminate with the specifications of a threshold index, the Total Minimum Daily Load, which defines the amount of nitrogen a waterbody can tolerate without harmful consequences. Once the critical nitrogen-loading rate has been determined, a management plan can be established and implemented to counteract detrimental effects and appropriate non-point source remediation strategies. The Towns of Eastham and Orleans are currently discussing regional solutions to both wastewater and estuary protection.

Nearly as important to the health of Eastham residents and visitors as the various studies advocated in this chapter are the monitoring actions taken by individual homeowners throughout the town. The Massachusetts Water Supply Policy Statement (1987) declares, "The primary responsibility for adequacy and safety of private water supplies remains with the users and local officials." Regular basic chemical profiling of private wells in Eastham is not mandatory or systematically required by regulation. Thus, basic chemical profiling on an annual basis at a minimum should be considered a priority by every homeowner within Eastham. Basic chemical profile testing provides information about a range of contaminants (including nitrates), and is available through the Barnstable County Department of Health and the Environment using collection bottles obtained for a fee through the Eastham Health Department.[13]

Implementation

The Town of Eastham has funded analysis and recommendations for implementation of a town-wide water distribution system, wastewater treatment systems and freshwater pond management. The water system analysis has resulted in locating water sources sufficient for the entire town with an application pending for DEP approval and a preliminary layout of water distribution. The wastewater study has produced a Final Interim Needs Assessment and Alternative Screening Analysis Report. The pond study has produced an Action Plan for the Town of Eastham Pond – Final Report.

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[13] See Cape Cod Regional Policy Plan (2002) pp. 36-41 for details of implementation actions.

VI. NATURAL RESOURCES – COASTAL RESOURCES

Town of Eastham Goals and Performance Standards

The Cape Cod Commission through its Regional Policy Plan for Barnstable County has established overall planning goals and minimum performance standards for Coastal Resources. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.[14]

Goal: To protect and enhance public and traditional maritime interests and the public trust rights for fishing, fowling, and navigation, to preserve and manage coastal areas so as to safeguard and perpetuate their biological, economic, historic, maritime, and aesthetic values, and to preserve, enhance, and, where appropriate, expand public access to the shoreline. To limit development in the coastal zone, particularly high-hazard areas, in order to protect the natural beneficial functions of coastal resources so that they serve to prevent or minimize human suffering and loss of life and property or environmental damage resulting from storms, flooding, erosion, and relative sea-level rise.

Existing Conditions

The coastal resources of Eastham are divided between Cape Cod Bay (the West Shore) and the Atlantic Ocean including Nauset Marsh and Town Cove. The Bay shoreline extends approximately 5.5 miles and is a mixture of coastal bank deposited by glacial activity, barrier beaches which form and protect extensive salt marsh systems, and coastal dunes. The Town owns and maintains seven (7) public beach areas along this shoreline with a total parking lot capacity for some five-hundred (500) vehicles.

Table 7: Eastham Beach Parking

Number (Estimated) of Beach Parking Spaces		
Beach	**Handicapped**	**Other Spaces**
South Sunken Meadow	1	16
Cooks Brook	4	102
Campground	4	105
Thumpertown	1	22
Cole Road	1	14
First Encounter	4	106
Boat Meadow		13
Great Pond	2	40
Wiley Park	3	49
Bees River	3	88
Herring Pond	1	13
Dyer Prince		6
Hemenway	3	26
Nauset Light	2	60

[14] Cape Cod Regional Policy Plan (2009) pp. 47

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The parking areas serve an area which totals approximately 1,500 linear feet of beach front (0.3 miles). No lifeguards are provided at these beaches due to the nature of the tidal action. Average depth of water is eight feet along the beaches at high tide, and at low tide water sandbars extend up to one mile offshore. Numerous private access points to the shore also exist, which are used by local associations of homeowners.

Two barrier beaches, located at Sunken Meadow and First Encounter, have been created by sand transported by tidal action and the wind. Landward of these barrier systems are extensive salt marsh systems, which have tidal creeks. Other salt marsh systems include Boat Meadow and Rock Harbor. All of these systems have been designated as Areas of Critical Environmental Concern (ACEC). In total, they contain approximately 400 acres.

Rock Harbor is located at the southern extremity of the Town and is jointly used with the Town of Orleans as a tidal port for recreational and commercial fishing vessels. Eastham maintains some 45 slips for dockage of boats and the Public Access Board of the Commonwealth maintains a parking area with boat launching ramp. Periodic dredging of this harbor continues on an erratic schedule. The most recent activity was completed in 1992, with the dredge spoil being deposited in several nearby shoreline locations. Future dredging will most likely require the transport of this material off site.

Billingsgate Island, scarcely visible except at low tide, is presently a mere fraction of its former self. Once an upland area, which supported a community of residents, tidal action has reduced the volume of land to a shoal area. This foreshadowing of the future of the rest of the Cape forced the removal of the dwellings and people some time ago, but the resource as a productive shell fishing ground still exists. The corporate boundary of the Town extends three miles further into Cape Cod Bay and within that area lie productive grounds for the harvest of quahogs, sea clams and bay scallops. Recreational fishing for both finfish and shellfish is common along the entire shoreline.

On the opposite side of Town, Eastham's back shore faces the Atlantic Ocean, which consists for the most part of high bluffs of glacial till exposed to coastal processes. Much of this sand has been transported southerly to form the Nauset Spit, a barrier beach which created and protects the Nauset Marsh system and adjacent Town Cove. The salt march system covers approximately 800 acres and is an extremely productive nursery area for both fin and shellfish species. Shell fishing is an ongoing activity in the marsh with both recreational and commercial activity being sustained and encouraged. The Town has developed numerous programs to supplement the natural production of shellfish species including relays, aquaculture methods to raise seed for the "wild" fishery, predator control programs and water quality monitoring.

The Nauset Marsh system within the Cape Cod National Seashore boundary and its associated Seashore Zoning District F established the level of environmental protection for privately owned (fee simple) properties. These zoning specifications limit uses, expansions, alterations, repairs, and disturbance of land associated with residential dwellings within the boundary. For dwellings owned by the Cape Cod National Seashore through condemnation, removal and restoration to original conditions will be completed as funding permits. Over time this will reduce the number of structures in the drainage basin contributing to the Nauset Marsh system and the footprint of the areas devoted to residential use. Recently, the Cape Cod National Seashore and the Town cooperated on a project, adjacent to Salt Pond Bay, to remove a house and restore the surrounding area to its natural state. Both the Town and the Cape Cod National Seashore are stakeholders in protecting the health of the Nauset Marsh system.

Private shellfish aquaculture sites continue to operate in various areas of the marsh and cove as they have historically done. The Town is currently addressing the recent interest in aquaculture by developing and

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permitting larger scale "Aquaculture Development Areas". These large sites which abut Town property in Cape Cod Bay are leased to individuals. By streamlining the permitting process and providing areas not subject to upland property owners' objections, aquaculture activities are encouraged. The EATTC provides training for potential aquaculturists as well as interested citizens and provides seed shellfish for the recreational and commercial wild fishery.

The corporate boundary of the Town divides the Town Cove from sections of Nauset Marsh. Historically, residents of each town have "enjoyed the rights to the shellfishery" as if they were residents of the other Town since the political separation of Orleans from Eastham in the 1797. The two towns have cooperated closely in the management of the associated bodies of water.

The majority of Eastham's shoreline along the back shore remains undeveloped beyond the establishment of the Cape Cod National Seashore. Two beaches are maintained on the Ocean at Nauset Light and Coast Guard sites. Both facilities are operated by the Seashore and provide restroom facilities, lifeguards, and designated parking spaces for Eastham residents. Three Town landings are maintained along the marsh and Cove, which serve as boat launching areas. Swimming is limited at these sites.

Analysis

The overwhelming majority of the shorefront in Eastham along Cape Cod Bay is eroding at various rates ranging from more than two feet per year to less than one-half foot per year. The response by property owners has been to construct structures to prevent the loss of their property with the resulting loss of active beach, "end effects" which encourage neighbors to imitate the activity, and finally a loss of sand to adequately nourish the barrier beach systems at the extremities of the town. Efforts have been made to encourage "soft" solutions to the erosion process, but much damage has been completed.

Nourishment of Town owned beach areas are a significant problem and increasing in scope. New or repaired coastal engineer structures are permitted with the stipulation that artificial nourishment shall be conducted annually by the property owner in an amount equal to what would have eroded at the site had there not been a coastal engineered structure. As the densely developed areas along the shore and converted to year-round use, or expanded to include more housing on tiny foundations, septic issues and the subsequent low level impact of foot traffic and other incidental pressure increases. Access to and use of the beachfront property is an issue of increasing concern as certain property owners are attempting to exercise property rights to mean low water (a considerable distance) and prevent such activities as bathing, boat moorings and shell fishing in front of their property. While not excessive at the present time, shoreline owners continue to assert property claims toward the water.

Dredging of Rock Harbor should be conducted on a five-year basis to ensure the least amount of disruption of navigation and safety. Previous projects have been completed only when the harbor proper was not navigable at low tide, which presents a fire hazard. The material, which needs to be dredged from the Rock Harbor basin, is best described as "muck". This material was formerly disposed of by placing it on the Eastham side of the land bordering Rock Harbor. This area is now considered an ACEC. The past disposal of spoils presents environmental issues as past placement has resulted in the establishment of large areas of phragmites.

Rock Harbor is a tidal harbor with access restricted to high tide. There is no channel dredged to Cape Cod Bay. The dredge material, however, would be clean sand suitable for beach nourishment. Extensive permitting would be required to dredge a new channel. A process should be developed to find disposal sites for the material dredged from Rock Harbor which is unsuitable for beach nourishment.

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Similar projects have been executed on Cape beaches with the understanding that the process is a dynamic one. The benefits of the attractive beach area are to be enjoyed by property owners as well as visitors and all who are part of the visitor economy.

There appears to be a limitless demand for services at Rock Harbor despite the fact that it is subject to tidal action. The limited number of slips cannot meet the need, but the expansion of dock facilities must be weighed together with loss of marsh and increased traffic along access roads. The Town should initiate a harbor planning study, targeting Rock Harbor, to develop a framework and guidelines for use and dredging activities. Study results could serve as the baseline for developing a town-wide harbor management plan in accordance with state guidelines.

Docks and piers constructed along the shore of Town Cove presents an ongoing concern with regard to the access along the shoreline as well as effects on shellfish habitat. Issues such as increased turbidity, loss of areas, and conflict of use are concentrated along this section of Eastham's shoreline.

All of the salt marsh systems along the west shore are currently closed to shell fishing activity due to an administrative closure order issued by the Environmental Protection Agency (EPA). Sanitary surveys of these areas have not been completed at the present time, but high coli-form bacteria counts in samples suggests that these areas would not meet water quality standards. In Nauset Marsh and Town Cove, several areas are subject to "seasonal closure" or "rainfall closure" due to road runoff, which is channeled directly in shellfish growing areas. These areas are in critical need of attention.

Recent changes to the inlet of the Nauset Marsh system have demonstrated that development in some areas identified as High Hazard by the FEMA maps has been underestimated. Presently, two inlets allow tide waters to enter the system, but not necessarily exit on the low tide; thus with easterly gales which drive tide waters into the marsh, numerous instances of flooding have occurred. In fact, the 100-year flood elevation has been achieved several times in a few years. The FEMA maps give guidance and restraints to developments in boundary areas and within hazard areas.

Implementation

Recommended Town Actions

A. Designate a "working waterfront" overlay zone in the area of Collins Landing in Town Cove to ensure the preservation and expansion of traditional maritime uses. Within this zone a boatyard preservation should be implemented. All new buildings for accessory uses constructed within this zone should directly benefit maritime related uses.

B. Confirm designated traditional rights-of-way to the shore through appropriate legal means. Efforts should continue to educate the public about shoreline issues and to attempt to resolve disputes between owners and users.

C. Restrict development or increased use in environmentally sensitive nearshore areas and limit septic impact of development.

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D. Initiate a harbor planning study, targeting Rock Harbor, to develop a framework and guidelines for use and dredging activities. Study results could serve as the baseline for developing a town-wide harbor management plan in accordance with state guidelines to implement watershed zoning to protect coastal resources and prevent use conflicts on the water.

E. Review its areas designated as Federal no discharge zones for boats to be certain they meet current Federal and State guidelines.

F. Continue to cooperate with the regional efforts to provide disposal options for marine head waste.

G. Monitor the application of by-laws and regulations established to reduce the potential impacts to health and safety and the economy resulting from coastal storms in order to ensure necessary stringency.

H. Update its list of projects that provide or enhance coastal access and use of their shoreline. To be used in conditioning local Chapter 91, Massachusetts General Law licenses.

I. Encourage "soft" solutions (snow fencing, beach grass planting) to coastal erosion instead of engineered structures.

J. Develop a comprehensive plan to require annual beach nourishment/replenishment as a condition for permission to install, maintain or rebuild a revetment.

K. Secure easements for public ownership of tidal flats between mean high and mean low water.

L. Maintain a regular dredging schedule for Rock Harbor.

M. Continue to upgrade and expand beach services, including clean, adequate handicapped accessible toilet facilities at each beach; benches, picnic tables and trash receptacles, bicycle parking, additional planting and fencing to delineate sensitive dune areas; uniform and user friendly signage; and should investigate additional sources of funding to provide additional personnel at parking lots.

N. Implement a continuing environmental education program.

O. The volunteer corps of year-round and seasonal residents should be continued to help with beach maintenance, possibly on an "adopt a beach" program.

P. Continue and expand the shellfish propagation and predator control efforts for both recreational and commercial uses.

Q. Pursue the establishment of community rather than individual private docks in the area of Town Cove.

R. Identify and cleanup the existing point source discharges of storm water from roadways such as Route 6.

S. Target the salt marsh areas along Cape Cod Bay which are subject administrative closure for sanitary survey and restoration/remediation programs.

See "Coastal Resources" in Implementation section.

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VII. NATURAL RESOURCES - WETLANDS

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for Wetlands. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.

Goal: To preserve and restore the quality and quantity of inland and coastal wetlands on Cape Cod.[15]

Existing Conditions

Wetlands in Eastham include both 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 phragmities.

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

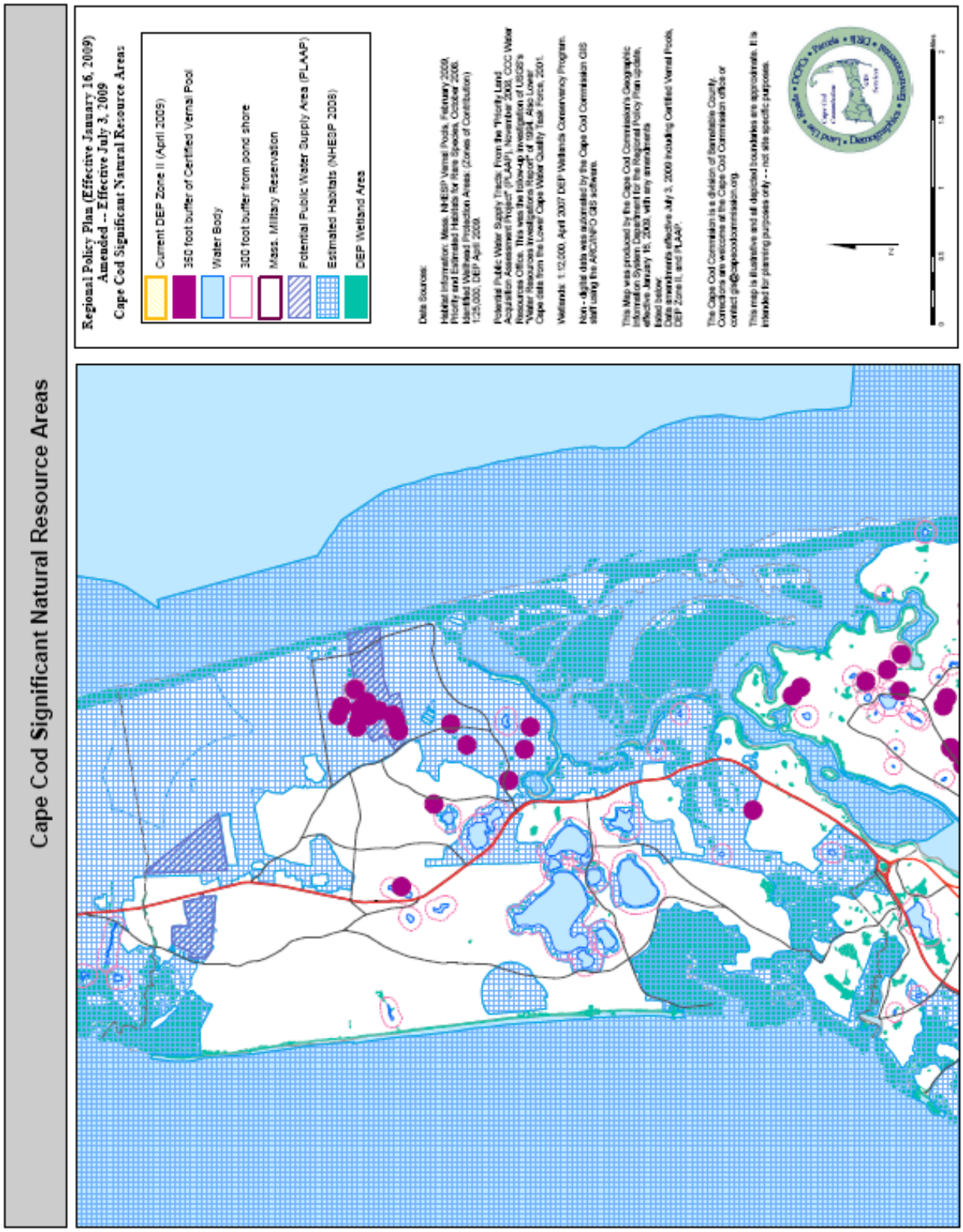
Certain tidal wetlands in Town are impaired due to tidal restrictions. Further details can be found in the Cape Cod Atlas of Tidally Restricted Salt Marshes (Cape Cod Commission, 2001) for the Town of Eastham.

Analysis

Eastham is fortunate to have extensive wetlands on both the Atlantic Ocean side and on Cape Cod Bay. It also has extensive vernal pools and small and great ponds. The town has an aggressive policy of monitoring and protecting these resources. The ponds are regularly tested to determine if action needs to be taken to prevent their deterioration. These wetlands provide many benefits to the residents and visitors including flood control, water filtration, recreation and wildlife habitat. Our conservation commission issues stringent conditions on projects near wetlands to protect the buffer areas.

[15] Cape Cod Regional Policy Plan (2009) pp. 50

Map 5: Significant Natural Resources Areas



Implementation

Recommended Town Actions

A. Wetlands and vernal pool should be mapped, identified, and protected so as to maintain their ability to provide natural functions. Local schools should be encouraged to participate in this effort.

B. Adopt a wetlands bylaw that provides for the following: protection of vernal pools outside other resource areas as well as isolated wetlands, a policy of no alteration/replication of wetlands for both public and private applicants, expansion of jurisdiction beyond 100 feet where appropriate, improved enforcement authority, and the ability to hire consultants to review applications at the applicant's expense.

C. The Conservation Commission should work closely with the Board of Health and other relevant town boards to develop mutually acceptable policies for wetland boundary delineation and the siting of new subsurface disposal systems in relation to these areas as well as improving and retrofitting areas with failing systems.

D. Develop and implement plans to address existing storm water management problems where runoff and drainage systems are adversely affecting water quality in wetlands and water bodies.

E. Continue to seek ways to remediate tidal restrictions, including incorporating improvements to restricted areas into planned road and bridgework and by seeking funding and partnering opportunities with federal, state and affected private entities.

F. Conduct an analysis to assess potential growth impacts to wetland areas, identifying those that are protected as well as those threatened by development. The map developed for the analysis should be used to develop strategies to address identified threats.

G. At a minimum development in boundary areas or within hazard areas should be scrutinized with relevant FEMA Flood Insurance Rate Maps (FIRMs).[16]

See “Wetlands” and “Wildlife and Habitat” in the Implementation section.

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[16] 2009 FEMA maps are now available for review and plan to be accepted in 2011.

VIII. NATURAL RESOURCES - WILDLIFE AND PLANT HABITAT

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for Wetlands. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.

Goal: To prevent loss or degradation of critical wildlife and plant habitat to minimize the impact of new development on wildlife and plant habitat and to maintain existing populations and species diversity.[17]

Existing Conditions

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, re-growth 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 as described in the previous section.

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 fifteen 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. Eastham is a habitat for over 30 endangered, threatened or special concern species of plants and animals. These include the Piping Plover, the Diamond-backed Terrapin, the Eastern Box Turtle and the Broom Crowberry plant.

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 monitors rare species within the Park. The U.S. Fish and Wildlife Service conduct 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

[17] Cape Cod Regional Policy Plan (2009) pp. 51-55

species, as well as the geographic locations of critical ecosystems. The review by the Massachusetts Natural Heritage Program shows Eastham to be important to a large number of states and/or federally designated rare, threatened or endangered species.

Implementation

Recommended Town Actions

A. Wetlands and vernal pool should be mapped, identified, and protected so as to maintain their ability to provide natural functions. Local schools (and other organizations) should be encouraged to participate in this effort.

B. Develop a review process for activities in critical plant and wildlife habitat areas that could adversely impact such habitat and/or seek designation as significant habitat areas under the Massachusetts Endangered Species Act.

C. Adopt by-laws/ordinances limiting land clearing and alteration of natural topography prior to development review.

D. Conduct an analysis to assess potential growth impacts to wildlife and plant habitat areas, identifying those that are protected as well as those threatened by development. The map developed for the analysis should be used to develop strategies to address identified threats.

See “Wildlife and Plant Habitat” and “Wetlands” in the Implementation section.

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IX. NATURAL RESOURCES - OPEN SPACE AND RECREATION

Town of Eastham Goals and Minimum Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for open space and recreation. Eastham's goals and performance standards are consistent with the Regional Policy Plan.

The goal is to preserve and enhance the availability of open space on Cape Cod and provide wildlife habitat, recreation opportunities, and protect the natural resources, groundwater quality, air quality, and character of Cape Cod. Barnstable County shall strive to protect as open space at least 50% of the developable land remaining as 1996.[16]

Inventory of Existing Conditions

Protected Open Space

a. Cape Cod National Seashore

The Cape Cod National Seashore along Eastham's eastern boundary provides a passive and active recreational facility of more than 3,000 acres or close to one-third of the Town. The Seashore is a favorite national destination spot and provides miles of beaches, swimming, windsurfing, nature trails, bicycling, horseback riding, fishing and hunting. The park is operated by the National Park Service (U.S. Department of the Interior), and was established by an Act of the U.S. Congress on August 7, 1961. The legislation protects the land by specifying 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."*

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 within the Seashore by establishing such trails, observation points, and exhibits and providing such services as may be deemed desirable for such public enjoyment and understanding..."*

The Seashore receives approximately five million visitors yearly and virtually all of these visitors pass through the Town of Eastham. The Salt Pond Visitor Center in Eastham is one of the main entrances to the Seashore. Other National Seashore attractions within the Town of Eastham include Fort Hill, Nauset Light Beach and Coast Guard Beach, and Doane Rock Picnic Area.

[16] See Cape Cod Regional Policy Plan (2002) pp 69-72 for details.

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The National Seashore has one beautiful sandy beach in Eastham with two entrances. The beach extends from the spit south of Coast Guard Beach to Wellfleet. The Coast Guard maintained a sea rescue station at this location, hence its name, and is now used as an educational facility. (The National Park Service residential environmental education program at Cape Cod National Seashore, known as the NEED program, offers educational groups an opportunity to experience the many natural and historical wonders of Eastham and Cape Cod on a multi-day basis.) A total of 825,000 people visit the beach annually. The National Seashore maintains 55 parking spaces with comfort facilities provided including outside showers for bathers. The National Seashore provides additional parking off Doane Road at both the Doane Rock and Little Creek areas. Shuttle service is provided to both Coast Guard and Nauset Light beaches from these parking areas.

Nauset Light beach is approximately two miles north of Coast Guard beach. This beach provides 150 parking spaces and receives 700,000 visitors each year. A comfort station and showers are provided.
Park rangers patrol the Seashore throughout the year. They also provide guided tours to many of the Seashore's attractions and historic sites. There is also a large Visitors Center with many on-going activities.

b. Town Owned Open Space

Eastham has over four hundred and eighty five acres of Town owned open space holdings, some of which are also historic areas. These areas provide a variety of outdoor experiences to both residents and visitors. In addition, the Town owns 64 acres of land known as the Roach property located on North Sunken Meadow Road.

Table 8: Town-owned Open Space

Name	Location	Acreage
South Eastham Conservation area	Peach Orchard Way	24
Cottontail Acres (Horton)	Samoset Road	18
Boat Meadow	off Bridge Road	168.5
Deacon Paine Road	Deacon Paine Road	0.7
Minister's Pond	Schoolhouse Road	5
Herring River	off Herring Brook Road	13.5
North Sunken Meadow		12.4
Nickerson Parcel	Cole Road West	26.6
Outer Beach	Map #30 D 5	2
Rock Harbor	Dyer Prince Road	10
Salt Marsh	Map #67 E 2	2.5
Sunken Meadow	Map #65 B 2	2
Sunset Avenue	Map #28 G 2	5.5
Town Forest	Map #33 C 4 & C 5	128
Eastham Windmill	Samoset Road	1.6
Wiley Park	Herring Brook Road	40
Upper Boat Meadow	Smith Lane	19.2
Gutzler	John Thomas	5.6
Roach Property	Sandy Meadow Way	43.35
	Total Town-owned Open Space:	528.45 acres

Source: Town of Eastham, Eastham Conservation Foundation, Inc

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Table 9 lists the land holdings of the Eastham Conservation Foundation, which include 43 parcels ranging in size from under one acre to more than 30 acres. To date, the Conservation Foundation has acquired over 214 acres, of which almost 76 percent is considered wetlands.

Table 9: Landholdings of the Eastham Conservation Foundation

ID	Date	Grantor	Total	Up	Wet	Habitat - Type	Map	Parcel
1	Dec-80	William F. Kenney	21.2	0	21.2	Salt Marsh	13	115
2	Nov – 82	Richard & Kate Wallace	1.15	1	0.14	Salt Marsh /Upland	20	9
3	Dec – 83	Arthur & Josephine King	0.8	0	0.6	Salt Marsh	1	42
4	Nov – 84	David & Audrey Greenwald	0.67	1	0	Eroding Bluff	23	17
05	Feb – 85	Robert Thayer	15.2	0	15.2	Salt Marsh	14	10
05	Feb – 85	Robert Thayer	0.73	1	0.21	Salt Marsh & Coastal	14	11
6	Jun – 86	Salt Meadow Corp.	9.49	2	7.98	Vegetated Wet	17	31
7	Sep – 86	Daniel & Hazel Pease	0.77	0	0.77	Shrub Swamp	12	042A
8	Jan – 89	Nature Conservancy	1.03	1	0.35	Coastal Dune, Beach	13	59
9	Dec – 90	Laura Kelly	26	1	24.5	Marsh - Old Bog	17	687
10	Dec – 90	Nancy H. Heller	1.24	1	0	Upland Locust Grove	15	120
11	Aug – 91	J. A. Stoehr & P. Nicholson	3.09	3	0	Pine & Hardwood	2	2
14	Dec – 91	Margaret Weiler	3.49	4	0	Pine & Hardwood	5	27
15	Dec – 91	V. Van Keuren & C.	0.7	1	0.21	Salt Marsh & Upland	19	106
18	May – 92	Capowack Trust	19.9	1	19.3	White Cedar, Maple Swamp	18	225
01	Dec – 92	V. Van Keuren & C.	0.28	0	0	Pine Woods	12	262
01	Dec – 92	V. Van Keuren & C.	0.32	0	0	Pine Oak Woods	12	267
20	Aug – 93	Laura Kelly	5.4	4	1.71	Pine Woods / Marshbog	17	772
22	Nov – 93	Collis D. & Joanne D. Peters	34.3	0	34.3	Salt Marsh	17	491
23	Dec – 93	Robert & Dorothy Mather	0.51	0	0.51	Shrub Swamp	19	64
24	Jun – 94	Abner & Elizabeth Pratt	0.46	0	0.03	Pine/Oak Woods	15	19
25	Jun – 94	Nancy Heller (Hoffman)	1.24	1	0.55	Locust Grove	18	314
26	Oct – 94	Torey Montessi & Camilla	3.79	4	0	Pine/Oak Woods	5	21
02	Nov – 94	Daniel & Hazel Pease	1.24	1	0.72	Shrub Swamp	12	037A
02	Nov – 94	Daniel & Hazel Pease	0.87	1	0.2	Pine Woods	12	038B
28	Dec – 94	Phillip D. Chase, Sr.	7.43	7	0	Pine/Oak Woods	5	023B
02	Dec – 94	Beatrice Burke (Codding)	1.34	1	0	Dune, Beach	19	38
02	Dec – 94	Beatrice Burke (Codding)	1.08	1	0	Dune	19	039A
30	Jan – 95	Chase Higgins Realty Trust	2.54	0	2.54	Salt Marsh	13	124
31	Aug – 95	Mildred H. Cummings	0.35	0	0	Cedar Field	12	203
32	Nov – 95	John J. Coleman	1.91	2	0	Pine/Oak Woods	6	143
33	Nov – 95	Albert J. Avellar, Jr.	1.79	0	1.79	Salt Marsh	20	91
35	Dec – 95	John R. Sibley	26.7	2	25.2	Salt Marsh/ Old Bog	1	15
36	Oct – 96	Mary Sue Dunsford	0.62	0	0.5	Vernal Pool	18	155
38	Aug – 97	Bernadette L. Ryder	2.7	0	2.7	Salt Marsh	16	7
39	Oct – 97	Richard A. Martin	1.01	1	0.26	Mixed Transition	19	115D
40	Oct – 97	Richard A. Martin	0.42	0	0	Shrub Thicket	19	115C
43	Mar – 98	James N. Carter	1.3	0	0.97	Salt Marsh; Bank	14	6
41	Jun – 98	Barbara E. (Mair) Little	0.67	0	0.31	Pondshore, Wetland	11	348
42	Nov – 98	Phillip H. & Maybritt L.	0.71	0	0.29	Pondshore	11	366
44	Jun – 99	Laura R. Kelly	6.85	6	0.6	Coastal Health	17	687
45	Jun – 00	Wyman Richardson	0.75	1	0.25	Vernal Pool & Upland	12	212
47	Dec – 00	Jacqueline Duffek	2.83	3	0	Upland Bordering	20	58
		Total	**215**	**51**	**164**	*Source: Eastham Conservation Foundation, Inc*		

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c. Land Protected by Conservation Restrictions

Eastham has adopted guidelines that set forth conservation restriction procedures for the Town. Conservation restrictions place limits on the future development of a parcel of land thereby retaining it in a natural or open condition. The title remains with the owner and public access is not necessarily provided. An organization, such as the Eastham Conservation Foundation or Massachusetts Audubon Society generally holds the restriction. The town's guidelines note studies have indicated that restricted land generates a substantial net savings to the town. It adds, for this reason, every effort should be made to promote conservation restrictions in the town. Land of any size may be placed under conservation restriction and such restrictions generally carry a tax abatement of 85% (95% if public access is permitted). The following parcels are subject to a conservation restriction in the town.

Table 10: Land Protected by Conservation Restrictions

ID	Date	Grantor	Total	Upland	Wetland	Habitat Type	Map	Parcel
12	Sep – 91	Ernest & Willa Hollis	2.74	1.58	1.16	Pond & Field	8	295A
13	Oct – 91	Marian Thomas	1.01	1.01	0	Pond Frontage & Pine Woods	13	79
16	Dec – 91	Laura Kelly	10.8	10.5	0.33	Mixed Pine & Hardwood	17	687G
17	May – 92	Estate of Codding	7.55	3.02	1.15	Dune Field Beach Marsh	19	41
21	Oct – 92	Opel / Emerson	3.32	2.78	0.54	Mixed Pine Woods /	11	61
34	Nov – 95	Marian P. Thomas	5.45	5.45	0	Coastal Health / Dune	13	74B
37	Dec – 96	Mildred Cummings	6.5	4.49	2.01	Pond; Pine Woods	12	300
46	Dec – 00	Cook & Hake	1.41	0.6	0.21	Vernal Pool & Upland	12	234
48	Nov – 01	Sibley	5.6	5.6	0	Pine Oak	1	74
49	Nov – 01	Kosarick	7.7	7.7	0	Pine Woods	4	456
		Total	52.1	44.45	7.66			

Source: Eastham Conservation Foundation, Inc.

Other Critical Open Lands

a. Preferentially Taxed Lands

There are three state programs, known as preferential assessments, which provide for reduced property taxes for landowners. These are Chapter 61--the Forestland Act, Chapter 61A--the Farmland Assessment Act and Chapter 61B--the Open Space Act. A landowner participating in one of these programs commits a property to agriculture, forest or recreation for a period of time. In exchange, the town reduces taxes and is granted the right to purchase the property if and when it is removed from the Chapter 61 classification for conversion to residential, commercial or industrial use. Under these programs, the reduction in taxes is generally 75-95%. A landowner must pay penalties if the land is removed from the program.

Lands in this program should not be considered protected open space. The town has 120 days in order to purchase property in one of these programs under the right of first refusal provision and must match a bona fide

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purchase price. The town's option can also be assigned to a nonprofit organization. However, in many cases towns do not have the financial ability to purchase these lands unless they have planned ahead for such acquisitions.

Table 11: Land Subject to Preferential Taxation

Program	Owner/Location	Acreage
Chapter 61	Fellers/255 Higgins Rd.	35.40
Chapter 61A	G. Handel/1765 Massasoit Rd.	11.69
Chapter 61B	Atlantic Oaks (Campground) Rt. 6	17.10
	Total Acreage Subject to Preferential Taxation	64.19

Source: Eastham Assessors Records (2009)

b. Ponds

There are eleven (11) ponds in Eastham: Molls, Minister's, Great, Long, Jemima, Muddy, Herring, Depot, Widow Harding, Baker's and Deborah's Pond. These ponds, which are surface expressions of groundwater, have good water quality, and provide swimming and boating opportunities. Many of these ponds are privately owned. In addition to these ponds, four additional surface water bodies exist. These include Salt Pond Bay, Nauset Bay, Herring River, and Boat Meadow River.

Table 12: Eastham's Largest Ponds (Acres)

Great Pond	109
Herring Pond (Coles Pond)	43
Long Pond (Depot Road)	25
Minister's Pond (Meetinghouse Pond, Eastham Center Pond)	21
Little Muddy Pond (Muddy Pond, Mill Pond)	11
Bridge Pond	10
Widow Harding Pond	9
Jemima Pond	6
Total	234 Acres

c. Landings and Beaches

Public access to water in Eastham is found in many forms. Eastham has 10 Town landings and 11 Town beaches, totaling 66 acres, as shown on Table 13 below. These beaches provide extensive recreational opportunities including swimming, fishing, boating, surfing and walking.

For a complete listing of public access to water and the facilities offered at each, including the beaches belonging to the Cape Cod National Seashore, see Table 14 next page.

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Table 13: Town Owned Landings and Beaches

Name	Location	Acreage
Boat Meadow Landing	Bay View Drive	8.3
Collins Landing	Route 6	0.1
Great Pond Landing and Beach	Great Pond Road	1.0
Minister's Pond Landing and Beach (Fisherman's Landing)	Schoolhouse Road	1.0
Salt Pond Landing	Route 6	6.4
Hemenway Landing	Hemenway Road	1.3
Jemima Pond Landing	Samoset Road	0.7
Herring Pond Landing & Beach	Herring Brook Road	0.9
Campground Beach	Campground Road	2.2
Cooks Brook Beach	Steele Road	4.3
Sunken Meadow Beach	South Sunken Meadow Road	1.0
Thumpertown Beach	Thumpertown Beach Road	1.0
Cole Road Beach	Cole Road	1.0
First Encounter Beach	Samoset Road	34.0
Wiley Park	Herring Brook Road	2.5
Kingsbury Beach	Kingsbury Beach Road	0.3
Rock Harbor Landing	Dyer Prince Road	N/A
Total Town-Owned Landings and Beaches		**66.0 Acres**

Source: Eastham Open Space Committee

Recreational Facilities

a. Town Facilities

There are three public indoor facilities primarily used for recreational activities. These include: the Nauset Regional High School gymnasium, the Eastham Elementary School gymnasium, and the Eastham Council on Aging facilities. Willy's Gym, a private facility, provides equipment and spaces for a variety of recreational activities.

Outdoor active recreational facilities include the Nauset Regional High School soccer field, track and tennis courts; the Eastham Elementary School ball field and playground; the baseball, softball and soccer field and basketball court behind the Town Hall and the Wiley Park playground, bridle path and swimming area. The following is a list of recreation facilities including National Seashore Beaches:

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Table 14: Recreational Facilities

Location	Docks/Piers/ Floats	Launch	Beach	Picnic	Showers	Restroom
Boatmeadow			X			
Campground Beach			X			
Coast Guard Beach			X		X	X
Cole Road			X			
Collins Landing			X			
Cooks Brook Beach			X		X	X
Doane Rock				X		X
First Encounter Beach			X			X
Great Pond Beach		X	X			
Hemenway		X				
Herring Pond		X	X			
Jemima Pond		X				
Kingsbury Beach			X			
Minister's Pond			X			
Nauset Light Beach			X		X	X
Rock Harbor	X	X				
Salt Pond		X				
Sunken Meadow Beach			X			
Thumpertown Beach			X			
Wiley Park	X		X	X		X

Source: Local Comprehensive Planning Committee

b. Cape Cod Rail Trail

Cape Cod is home to some of the best cycling available in New England today. It is the home of the famous Cape Cod Rail Trail; a twenty-three-mile paved trail. The Rail Trail extends from Route 134 in South Denis to Lecounts Hollow Road in South Wellfleet. The Rail Trail occupies a former Rail Road right of way, which was used to bring passengers and freight to Cape Cod in the early 1800's to approximately 1960. The Department of Environmental Management of Massachusetts manages the trail. The trail passes by many points of interest and several pristine ponds and lakes suitable for swimming and picnics. The trail is patrolled by the staff of Nickerson State Park and local police officers assigned to bike patrol.

In Eastham the Cape Cod Rail Trail runs north to south for approximately six miles. The trail is approximately eight feet in width and provides a walking and biking route connecting the towns of Orleans to the south and Wellfleet to the north. Limited parking for vehicles and restrooms are provided in Eastham along this trail. The National Seashore Bike Trail runs from National Seashore Visitor Center (Nauset Road at Route 6) to Coast Guard Beach (approximately 1-1/2 miles). Parking is provided in the Visitor Center. Several biking/hiking trails, which would link the existing Cape Cod Rail Trail and the National Seashore Bike Trail, and allow for additional non-motorized access to the Bay and Ocean sides, have been proposed; one of which would take advantage of the Cape Cod Regional High School parking facilities.

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Proposed Bike Routes in Eastham:

1. A route from Nauset Regional High School to Nauset Beach and Coast Guard Beach.
2. A route from the National Seashore Visitor Center to the bay beaches.
3. A route from where the existing trail intersects with Brackett Road to the North Eastham Post Office shopping area to eliminate bike traffic on Brackett Road.

c. Camping Opportunities

There are no publicly managed campgrounds in Eastham. There is one private campground on Route 6 that permits tent camping.

Analysis of Open Space and Recreation Needs

Current and Future Demand for Open Space and Recreational Opportunities

Eastham has a great diversity of open space and recreation opportunities as demonstrated in the inventory above. At the same time, the Town has a very active retired population. The survey conducted by Eastham's Local Comprehensive Planning Committee shows that the amount and frequency of use of open space and recreation facilities by Eastham residents does not really decrease until after age 80.

In the 1995 Capewide Residents Survey conducted by the Cape Cod Commission 87% of residents said that "amount of open space" was important to them in making the decision to live or vacation on Cape Cod and 77% cited "recreational opportunities." In addition, residents supported increasing taxes to pay for acquisition of open space for water supply protection (81%) and passive recreational use (64%). A total of 67% supported a town land acquisition program to limit the potential population growth in their town. A requirement that developers of all large projects donate land to the community for use as public open space was supported by 66% of those responding. Although the 1995 survey did not have a large enough sample size to compare results among towns, a similar survey conducted in 1990 permitted such comparisons. It is notable that Eastham resident's responses were consistent with those of the rest of Cape Codders in most cases with regard to open space issues. Despite the presence of Cape Cod National Seashore, 43% of Eastham residents stated in 1990 that loss of open space was a serious problem facing their town, compared with 49% for the Cape as a whole. In addition, in 1990 51% of Eastham residents supported legislation to create a land bank through a real estate transfer tax, the second highest margin of support in any town on Cape Cod (Wellfleet was the highest). Support for this proposal was even greater in the 1995 survey.

It is clear from the Land Use and Transportation elements of the Eastham Local Comprehensive Plan that the impacts of buildout of the town will adversely affect community character and the functioning of the town's transportation network. Based on long-term growth trends, it appears that all of the town's vacant residential land could be developed by 2015 -- a mere 5 years away. The town's 2000 year-round population was 5453, and by 2010 it is projected to be 6220. Based on the 485.1 acres of open space and the current population, the protected open space per capita is .09 acres. This additional growth will create increased pressure on existing open space and recreation facilities and will also reduce the amount of perceived open space within the Town of Eastham. "Perceived" open space is a total of protected open space combined with undeveloped land. As these undeveloped lands are converted to residential use, the amount of "elbow room" within the Town will be reduced. It is clear that unless additional open space is acquired, the amount of protected open space per person will be dramatically reduced by projected levels of residential growth over the next 5 years. In the process the character of the community and of individual neighborhoods will be changed.

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The town has several options for changing this future scenario slowing growth through changes in zoning, undertaking an ambitious land protection program or some combination of the two. Data from the Outer Cape Capacity Analysis indicates that most existing vacant residential lots in the Town are less than one acre. Only 17 lots are greater than 5 acres and these would support approximately 96 dwellings. It appears, therefore, that changes in zoning are unlikely to significantly alter future build out projections, making land protection the stricter method for reducing overall population pressure at buildout.

Eastham has an approved Open Space and Recreation Plan on file with the Massachusetts Department of Environmental Management. This plan is water driven, that is to say that protection of water resources is the goal on which all other goals hinge. The overall strategy of protecting half of the remaining undeveloped land in Eastham looks to protect groundwater, surface water and coastal resources. Bounded on two sides by water and with many interior ponds, wetlands and coastal embayments, the relationship between land and water is critical. A set of criteria has been set forth in this plan that guides the selection of open space purchase.

Eastham also maintains an Open Space Lands Management Plan which designates the tasks to be done annually in order to maintain town owned open space properties in keeping with the following three goals: 1. Keep it natural, 2. Make it accessible and 3. Render it educational. These plans are maintained by the Open Space Committee.

Opportunities to Meet Town Open Space Needs

a. Funding for Land Protection

There are a variety of potential funding sources for open space acquisition. CPA funds allot a minimum of the annual 3% property surcharge tax for open space and recreation projects which meet the requirements of acquisition, creation and preservation. Since its inception, CPA funds have provided a Glacial Trial linkage, a connecting bridge over different parts of Wiley Park, and partially funded the new playground and equipment for the renovated elementary school. Additional funds may come from DEM trail grants, land trust purchases, negotiation of easements or other sources.

b. Subdivision Control Law/Special Permits

Chapter 41, Section 81U provides that *"before approval of a plan by a planning board, said board shall also in proper cases require the plan to show a park or parks suitably located for playground or recreation purposes or for providing light and air are not unreasonable in area in relation to the area of the land being subdivided and the prospective uses of such land, and if so determined said board shall by appropriate endorsement on the plan require that no building may be erected on such park or parks for a period of not more than three years without its approval."*

During this three-year period the town could seek funds to compensate the developer for such open space/park dedication. This provision offered an opportunity to provide for the open space and recreational needs of residents within the larger subdivisions in the town.

In addition, the Town could make greater use greater use of cluster zoning to provide open space within residential subdivisions. Assessors' data indicates that there are only 5 parcels greater than 10 acres within the Town. There are approximately 12 parcels between 5 and 10 acres. Expanding the use of the cluster bylaw to parcels that are a minimum of 5 acres in size would allow for greater use of this bylaw provision, and at the same time allow for design that accomplishes open space protection objectives.

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Opportunities to Meet Town Recreational Needs

Eastham will play an important role in the Cape Cod Pathways project. Cape Cod Pathways is a regional effort to create a Cape-wide interconnected network of walking trails. The Barnstable County Commissioners and Cape Cod Commission are coordinating this project with assistance from several other agencies and organizations. The Eastham Board of Selectmen has endorsed this project. The County and the Town are working together to identify trail routes, identify acquisition needs and dedicate trail segments. The first priority within the Town of Eastham is to identify a north-south spine for the trail. Lateral trail segments will also be planned. Biking/hiking connectors from the existing Cape Cod Rail Trail to the bay and ocean sides would provide for increased recreational opportunities.

Safety issues are a major concern along the existing bike paths. Painted crossings on major roads, signage for motorists and cyclists, lighting where appropriate, emergency telephones and courses on bicycle safety should be provided. A Hiking/Bikeways Committee could recommend mitigating measures for potential problems and additional bicycle routes. In addition to connectors, parking facilities and comfort stations must be provided for these routes.

Need for an Open Space and Recreation Plan

The last Open Space and Recreation Plan for Eastham was submitted by the Open Space and Recreation Committee and formally approved by State authorities in December 2009 and is valid until February 2014. This Plan should be updated every five (5) years in order to be eligible for State Open Space funding and to assess the current and projected open space and recreation plans for the Town. This is particularly important in view of the recently adopted Open Space Bond bill, which contains millions of dollars for local open space acquisition. The town's Open Space Plan has identified and prioritized areas in need of protection and/or acquisition by the Town.

Implementation

The following recommendations are suggested to maintain and improve the existing level of open space protection and recreation facilities and programs.

Recommended Town Actions

A. Develop a comprehensive open space protection program in order to meet future open space and recreation needs, protect community character, reduce growth pressures and maintain community fiscal health. This program should include expanded use of town acquisitions, conservation restrictions, subdivision set-asides, protection of tax title lands and other methods of open space protection. Priority shall be given to the following areas:
    1. Zones of contribution to public water supply wells
    2. Future water supply areas
    3. Construction of a multi-use building on town owned property for sport activities
    4. Rare species habitat and other critical habitats
    5. Unfragmented forest habitat
    6. Missing links between open space areas identified within the Capewide Greenbelt or Cape Cod Pathways/Bikeways networks.

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B. Update its Open Space and Recreation Plan every five (5) years and submit it to the State to maintain eligibility for Open Space funding under federal and state grant programs.

C. Work with the Eastham Conservation Foundation to identify, acquire and manage open space and conservation restrictions. Priority should be given to the protection of significant natural and fragile areas described in 6.1.5 of this section.

D. Work with the Eastham Conservation Foundation and with landowners participating in the Chapter 61 programs to acquire conservation restrictions on those lands or should set aside funds for their purchase if they are proposed to be sold for development.

E. Develop a cluster by-law and actively promote its use where this alternative would allow protection of open space and recreation lands, environmentally sensitive areas and/or provide for needed trail corridors.

F. Amend its subdivision regulations to take advantage of Section 81U of the Subdivision Control Law which permits towns to require open space set-asides within subdivisions for future acquisition.

G. Continue to maintain and protect public access to both freshwater and saltwater bodies for recreational purposes.

H. Investigate possible loops or connectors with the existing biking and walking paths, identify parcels for acquisition, establish a bike safety course, recommend measures to mitigate safety concerns, and identify opportunities for additional parking in proximity to the Cape Cod Rail Trail. In particular the Town should work with the National Park Service to develop open space and trail linkages to the Cape Cod National Seashore.

I. Maintain Town-owned land within the Cape Cod National Seashore as open space.

J. Continue to expand the current programs to include all age groups and consider additional sites for ball field and basketball facilities. In addition, the Recreation Commission should consider entering into an agreement with private resources in Town for an indoor swimming program for all age groups.

K. Encourage landowners to restore blighted or abandoned areas to open space.

L. Aggressively seek to acquire tax title lands and hold them for community purposes such as open space and recreation where such use would be consistent with the Open Space and Recreation Plan.

M. Consider recreation needs in the development of plans for the Town Hall area and for the Route 6 and Brackett Road area.

N. Revise Open Space Map to include key differences between types of ownership/control (e.g., town-owned open space, recreation areas, national seashore, land trusts, etc.)

See Open Space and Recreation in the Implementation section.

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X. NATURAL RESOURCES – AIR QUALITY

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established an overall planning goal and minimum performance standard for Air Quality. Eastham's goal and minimum performance standard are consistent with the Regional Policy Plan.

Goal: To maintain and improve Eastham's air quality so as to ensure a safe, healthful, and attractive environment for present and future residents and visitors.[18]

Existing Conditions

The source of air quality problems such as smog, acid rain, emission of greenhouse gases and other pollutants travel widely in the atmosphere and Eastham is not entirely in control of its own air quality destiny. Regional sources of air pollution as far away as the Great Lakes and New York City can affect the Cape's air quality. Although air quality is a regional issue, it is important to recognize that local sources of air pollution also affect local air quality. Measures should be implemented to protect Eastham and to contribute to the reduction of regional air quality problems.

The Town of Eastham generally enjoys good air quality as does the rest of the Cape. However, over the last decade, the Cape has experienced elevated ozone levels exceeding public health standards during the summer. The Pollutant Standard Index Reading, a measure of air quality, ranging from good to unhealthful, establishes a threshold of 100+ as unhealthful air quality (Table 15). In the summer of 2002, an air quality monitoring station in Truro measured an ozone reading, exceeding 200, twice the unhealthful threshold.

Table 15: USEPA Air Quality Index Readings at Truro (100+ = unhealthful)

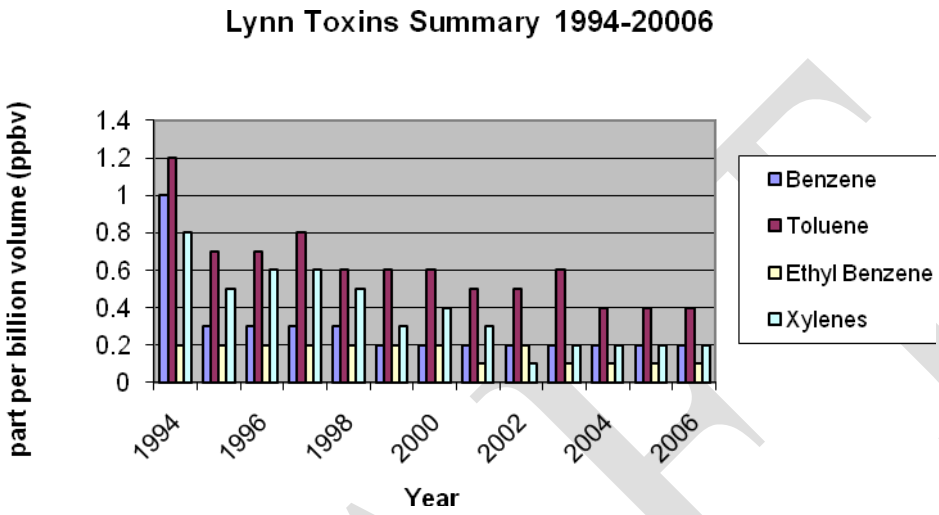
Date	8 Hour Peak (avg.)	Air Quality
6/24/10	114	Unhealthful
7/17/10	105	Unhealthful
8/31/10	105	Unhealthful
9/2/10	104	Unhealthful

Source: U.S. Environmental Protection Agency via Massachusetts DEP

Since 2002 the Truro station has gathered information on several air pollutants. Ozone has been the most serious offender by reference to the number of health challenging occasions. The observations have also shown a downward trend in ozone pollution and generally healthful air quality conditions prevail in the area.

[18] Cape Cod Regional Policy Plan,2002, pages 75-76 for details of performance standards

Ozone Air Quality, 1990-2006
(Based on Annual Maximum 8- Hour Average)
Barnstable County



The results of the state and regional monitoring also show a regular decrease in the volume of pollutants for more than a decade. The reformulation of gasoline and other highway fuels in the mid-nineties most probably has driven this trend.

Although air pollutants may originate well beyond the reach of local jurisdiction, some pollutants are of local origin and can be managed locally. Measures which induce proper use and maintenance of vehicles, proper brush disposal, installation of efficient heating systems and the use of well designed lawn and garden equipment can be implemented within towns and villages.

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XI. ECONOMIC DEVELOPMENT

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for Economic Development. Eastham's goals are consistent with the Regional Policy Plan.[19]

The goal is to promote the design and location of development and redevelopment to preserve the Cape's environment and cultural heritage, use infrastructure efficiently, minimize adverse impacts, and enhance the quality of life for Cape Codders. To promote a balanced regional economy with a broad business, industry, employment, cultural, and demographic mix capable of supporting year-round and quality employment opportunities. To promote economic activity that retains and attracts income to the region and benefits residents, thus increasing economic opportunity for all. To provide adequate capital facilities and infrastructure that meet community and regional needs, expand community access to services, and improve the reliability and quality of services.

Development Review Policies

Development and redevelopment is most appropriately considered in the context of a gradually growing community with growth centers, though none has been formally designated. The resource base is called upon to produce the goods and services which are preferred by stakeholders of the community and with serious regard to sustain itself for the sake of future generations.

The economic well being of Eastham's residents and businesses benefits greatly from the employment opportunities within the town. The combination of Eastham's natural resources, productive facilities and human resources generate substantial incomes. Additionally, and fortunately, the Eastham workforce has access, from their preferred Eastham residences, to jobs in neighboring Cape towns and, in modest proportions, at off cape locations such as Boston. Thus, even though there is limited space and desire for further industrial or commercial development within Eastham, economic well being is sustainable and the semi-rural character of the town can be preserved.

Existing Conditions

The 1969 Comprehensive Plan noted that in 1966, forty-four (44) businesses existed in Eastham and the construction industry was the largest business sector, accounting for almost half of all employment. The economic health of Eastham now depends heavily on many kinds of small businesses and tourism. For example in 2008 as in 2002 one small manufacturing firm was located in Eastham.

The Town Clerk issued 296 business licenses in 2001, the majority of which were for home occupations which employed three or fewer persons. The pattern continued and in 2008, 491 business licenses were issued, generally for small businesses. Tables 16 and 17 show the employment and income associated with these businesses as well as modest growth in the labor force itself.

[19] Cape Cod Regional Policy Plan (2002); pp. 83-84

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Table 16: Employment Rates (1999-2010) and Household Income (2000, 2010)

	1999	2000	2001	2010
Total Labor Force	2,629	2,620	2,661	2,409
Number Employed	2,519	2,519	2,541	2,149
Number Unemployed	110	101	120	227
Unemployment Rate	4.2	3.9	4.5	4.9
Income per Capita		24,642		35,842
Median Income per Household		42,618		58,750
Median Family Income		51,269		74,479

Source: U.S. Census, Commonwealth of Massachusetts DET and Massachusetts DOR

Table 16 shows that unemployment rates have declined since the high of 217 persons in 1991 to a 2006 low of 85. Certainly Eastham is not immune to the impacts of events on the world stage and September 11, 2001 events caused a significant downturn in the economy. Unemployment rates on the cape were affected, but that affect was obscured by the anticipated "end of season" downturn. Expectations were that Americans would travel closer to home, and the Cape economy and Eastham experienced a positive impact on local revenues based on increasing rates of tourism.

The labor force in Eastham has maintained an average growth of thirty (30) persons per year from 1990 to 2006 even though there was a labor force reduction of thirty-nine (39) persons (1990-1992), and in 1999-2000 when there was a loss of fifteen (15) laborers.

Table 17: Annual Average Employment Statistics 1990-2010

Year	Total Labor Force	Number Employed	Number Unemployed	Unemployment Rate (%)
2010	2,409	2,149	227	4.9
2001	2,679	2,573	106	4.0
2000	2,614	2,512	102	3.9
1999	2,629	2,519	110	4.2
1998	2,558	2,431	127	5.0
1997	2,524	2,378	146	5.8
1996	2,458	2,325	133	5.4
1995	2,442	2,280	162	6.6
1994	2,362	2,182	180	7.6
1993	2,338	2,145	193	8.3
1992	2,291	2,077	214	9.3
1991	2,306	2,089	217	9.4
1990	2,330	2,199	131	5.6

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The labor force is concentrated in tourism, service related jobs and construction, and most of the labor force work in Eastham or within a ten (10) mile radius of town. Five percent (5%) of the workforce commute to off-cape work sites. This pattern of employment by "place of work" and "place of residence" illustrates a strong socio-economic dimension of regionalism in the County. Additionally, self-employment accounts for fourteen and one-half (14.5) percent of the Eastham workforce.

The Town of Eastham itself is one of the larger employers. There are approximately one hundred twenty (120) full-time Town employees and forty (40) part-timers. Other major year-round employees in Town include the Nauset Regional Public Schools, the Cape Cod National Seashore and the Sheraton Ocean Park Inn.

Business in Eastham

Eastham's economic environment is dominated by the national and international seasonal vacation activities. Eastham is the gateway to the Cape Cod National Seashore and therefore is a popular tourist destination. The service, trade and construction industries, which all benefit from and rely on this seasonal tourist base, make up more than seventy-five (75) percent of all businesses in Town. This also confirms the strong self-employment sector of the Eastham economy. A glance at the business licenses issued in 2002 and 2008 shows this business mix. The substantial increase in licenses issued is partly due to two new categories of licenses (artists and fishing supply businesses). Although some of these licensees may have practiced their crafts previously within other licensed categories such as painter or potter now more independent artists would be required to register and have their own licenses.

Table 18: Business Licenses Issued by Eastham

License Type	Number: 2002	Number: 2010
Antiques	5	2
Automotive (Sales & Repair)	5	7
Gas Stations	5	4
Restaurants	17	15
Bed and Breakfasts	8	7
Cottages & Inns	30	17
Campground	1	1
Carpentry	12	38
Construction	27	46
Beauty Shops/Barbers	5	6
Attorney	1	2
Computer Services	6	1
Forge	1	0
Motels	9	12
Moving/Storage	1	1
Shellfish Operators	3	5
Landscapers	9	19
Retails Shops	48	77
Real Estate	14	17

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Personal Professional – Massage Therapy – Fitness	9	3
Limousine Service	6	0
General Stores & Package Stores	5	8
Manufacturing Company	1	2
Fitness Center	1	1
Professional/Security, Plumbers, Electricians, Painters, Pottery	34	24
Nursery	1	2
Trucking Company	2	0
Veterinarians	2	2
Recreation Facility	1	4
Fishing Supplies		0
Artists		5
Misc. Catering/Home Care	27	2
Total Licenses	296	349

Source: Town of Eastham, Town Clerk's Office, 2008

Table 19: Municipal Property Tax Rates in Selected Barnstable County Towns (FY 1996 through 2007)

Town	1996	1998	2000	2002	2004	2006	2007	Percent Change
Brewster	$12.97	12.84	11.92	10.69	7.29	5.58	5.47	42%
Eastham	$11.05	11.64	11.71	9.20	5.12	4.69	4.61	42%
Harwich	$11.64	11.70	11.70	8.90	8.60	5.89	5.58	48%
Orleans	$9.85	9.55	8.46	5.36	4.41	4.16	4.27	43%
Provincetown	$11.98	11.58	8.55	N/A	5.45	5.05	4.96	41%
Truro	$6.92	7.78	7.40	N/A	5.92	4.40	4.15	60%
Wellfleet	$8.33	9.14	9.43	6.93	4.84	4.59	4.50	54%
Average	$10.39	10.60	9.88	8.22	6.64	5.56	5.43	52%

Source: Massachusetts Department of Revenue – Division of Local Services – Municipal Data Bank – Local Aid Section, 2007

Eastham's tax rate from 1996 to 2002 remained above the average of other comparable Barnstable County towns but significantly lower than the State and County averages. After 2002, Eastham rates were below the rates of comparable towns in the area. The median tax bill for single – family homes in Eastham also remained below the State median.

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Table 20: Average Tax Bills of Single – Family Homes in Selected Barnstable County Towns – FY 1996 through 2007

Town	1996	1998	2000	2002	2004	2006	2007
Brewster	$1,993	2,074	2,071	2,233	2,509	2,718	2,817
Eastham	$1,579	1,694	1,720	1,853	2,031	2,292	2,362
Harwich	$1,829	1,933	1,960	2,495	2,732	2,877	2,938
Orleans	$2,199	2,180	2,250	2,583	2,820	3,253	3,310
Provincetown	$2,013	2,223	2,490	N/A	3,300	4,072	4,254
Truro	$1,619	1,816	2,128	2,166	3,027	3,335	3,386
Wellfleet	$1,552	1,749	1,837	2,166	2,386	2,734	2,958
Barnstable County Median	$1,983	1,983	2,128	N/A	N/A	N/A	N/A

Source: Massachusetts Department of Revenue – Division of Local Services – Municipal Data Bank – Local Aid Section, 2007

For the period 1996 – 2007 Eastham's average tax bill is slightly above the bottom quartile of Barnstable County towns. This ranking speaks well of the cost of public services to the average property owner in Eastham.

The equalized valuation of all property in Eastham increased 3.58 times from 1994 to 2006, or about par with the Barnstable County average for the same period, as shown in Table 21.

Table 21: Municipal Equalized Valuations in Select Barnstable County Towns (1994 – 2006)

Municipality	1994	2000	% Increase 1994-2000	2006	% Increase 2000-2006
Brewster	1,084,523	1,427,451	32	3,892,000	273
Eastham	858,341	1,036,048	21	3,075,240	297
Harwich	1,597,173	2,105,331	32	5,328,884	253
Orleans	1,153,973	1,569,517	36	3,981,793	254
Provincetown	577,300	986,316	71	2,556,302	259
Truro	583,948	780,283	34	2,252,979	289
Wellfleet	682,535	870,896	28	2,450,082	281
County	25,107,549	32,139,914	28	87,170,370	271

Source: Massachusetts Department of Revenue – Division of Local Services – Municipal Data Bank – Local Aid Section, 2006

There are one hundred and twenty-seven (127) tax – exempt properties encompassing over six hundred and forty three (643+) acres in Eastham. These properties include State, Town and non-profit lands. In addition, the Cape Cod National Seashore property covers approximately three thousand (3,000) acres that are tax – exempt. Together, this represents a substantial thirty-six hundred and forty – three (3,643) acres, or forty (40) percent of the land in Eastham, which is non-taxable and generates modest payments in lieu of taxes.

Analysis

Route 6, with its existing sprawl of commercial and residential development, has replaced the small villages that existed half a century ago. Orleans, as the regional growth center for the Lower Cape, serves as the commercial center for Eastham's residents.

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There are two areas in North Eastham that are zoned for future multiuse development.

There is good potential for new development on 23 privately owned acres that are zoned for class "C" development. This location would be suitable for a mix of moderate size buildings to house technology, light industry or commercial companies. Access to the property could be from either Holmes Road or Route 6 and would require permission from current adjacent property owners. Developing this property would create employment opportunities for local residents as well as additional tax revenue.

The town currently owns 11 acres of land known as the Purcell property. There are several possible applications for multiuse development of this property, dependent on the future needs of the community. Projected uses under consideration are senior housing, a civic building such as a community or senior center, medical services and/or businesses that have a year round customer base.

Infrastructure limitations such as roadway capacity and a lack of town water may limit the ability of the Town to support significantly more business development and Eastham will continue to rely primarily on residential property for the bulk of its tax base.

In order to increase diversified business activity meeting the needs of the community and consistent with the overall desire to maintain the natural environment, "clean industry" may be encouraged on selected sites with appropriate infrastructure.

The increase in telecommuting Cape – wide indicates that telecommuting technologies, including the Internet, have matured to the point that they are available to large numbers of workers. Telecommuting may allow Eastham residents, who have traditionally been constrained by their geographic isolation, to do business in a global marketplace. However, delays in providing Outer Cape residents and businesses with new telecommunications services, ranging from ISDN lines to the value – added services offered by the latest digital technology, limits their potential for Eastham residents. The Town continues to push the cable and telephone companies to provide low cost universal high-speed internet service to residences and businesses in Eastham.

The Open Cape Initiative is currently being installed which will bring extremely high speed internet to the Town of Eastham and will allow Eastham to begin sharing resources with other cape towns and county agencies.

Implementation

Recommended Town Actions

A. In preparing the Local Comprehensive Plans (LCP), meet with businesses and business organizations to ascertain economic development needs in the community.

B. Create regulations that provide incentives for businesses to locate in compact mixed-use centers.

C. Work with the private sector, including the Chamber of Commerce, to identify and develop entrepreneurial and business activities compatible with towns' existing strengths and resources.

D. Continue to rely upon tourism, natural resources and capital, to stimulate additional year-round employment, and to maintain the natural environment that attracts most people to Eastham.

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E. Improve the flow of traffic at the Brackett Road and Route 6 area and provide onsite accommodations for public transportation vehicles.

F. Promote with particular attention to "off-season" activity, events such as Windmill Weekend and the fall foliage period.

G. The Planning Board should develop design standards for commercial areas, including undergrounding of utilities, to maintain the semi-rural characteristics of Eastham and enhance the environment. The Town may draw upon the Cape Cod Commission's Designing the Future to Honor the Past and the 2009 Cape Cod Regional Policy Plan as it applies to Eastham.

H. Actively support efforts to develop the frequent, affordable, year-round express bus service along Route 6 to enable Eastham residents, as well as residents of neighboring towns to travel to work in other towns on Cape Cod and off-Cape.

I. Augment performance standards for business and industrial areas to include such items as lighting, surface treatment, erosion, noise, water and air pollution. Home occupations should have their own standards which maintain the appearance of residential areas yet allow compatible business activities.

J. Encourage the use of the home as a business (home occupation), such as telecommuting and direct mail. The Town should participate in regional efforts to underground electrical utilities, upgrade services more rapidly, and insist on higher standards of reliability from electrical utilities. These improvements would allow for the uninterrupted delivery of electrical power to facilitate the potential for telecommuting and distance education through the Internet.

K. Request the Eastham Chamber of Commerce to act as the responsible agency to represent Eastham before the Cape Cod Economic Development Council for the purpose of identifying a small, "clean" industrial firm that would consider locating in Eastham.

L. Cooperate with the Chamber of Commerce in comprehensive surveys of local businesses to learn about business issues and impediments to economic development.

M. Develop a pedestrian walkway system in local business centers to encourage small-scale boutique commercial development.

N. Develop a sidewalk and bicycle path from the Rail Trail to Route 6.

O. Develop a feeder bicycle path system to support bicycle commuting to shops, work sites and the post offices.

P. Cooperate with the Cape Cod Commission to develop a comprehensive Eastham data base consistent with the developing county wide data base.

See "Economic Development" in Implementation Section.

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XII. COMMUNITY FACILITIES - TRANSPORTATION

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for transportation. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan in so far as the Town has local control of the transportation facilities enumerated.

The goal is to foster a transportation system in Eastham which is safe and accessible, and reduces dependence on automobiles. [20]

Existing Conditions

Transportation is one of the most difficult issues facing Cape Cod and communities like Eastham. Providing mobility in the face of funding limitations is difficult enough. Combined with the competing issues of community character such as impacts to natural resources, the seasonal nature of the traffic problem and an increasing population dependent upon public transportation the problem becomes especially difficult.

Eastham's existing transportation system still consists mainly of roads, as opposed to other means of transportation. Today, approximately 95% of all trips in Eastham are via the private automobile. Bus ridership, walking and bicycling together total only 5% of trips. In part, this reflects the fact that existing year-round public transportation services are limited and have been neither encouraged nor studied by local government. Similarly, the appeal of bicycle transportation is constrained by the absence of east-west bike paths outside the National Seashore, and the lack of bicycle racks and secure storage bins at commercial centers in both Eastham and Orleans.

The anticipated annual expenditures on maintenance and repair of Eastham's town owned roads as well as the state owned portion of the transportation system (Route 6) is $160,000 per year. Current capacity throughout the town owned road network meets all but the summer travel demands. Peak travel demand on Route 6 during the summer results in severe congestion in South Eastham leading to the Rotary as well as congestion near the signalized intersections in town. Traffic at intersections at Brackett Road and occasionally at Samoset operates at reduced levels of efficiency.

Although the capacity constraints occur primarily during the summer, safety problems occur on a year-round basis. Based on the latest available accident records, Route 6 in Eastham has a higher accident rate than any other section of Route 6 on Cape Cod. It appears that conflicts between through traffic and local turning traffic along the four-lane highway are largely responsible. Speed and inattentive drivers contribute to extensive property damage and loss of life in these accidents. Enhanced police surveillance has improved the flow of traffic and reduced accidents.

[20] Cape Cod Regional Policy Plan (2009) pp. 133-147

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The annual average daily traffic (AADT) total volumes for Route 6 in 2001 ranged between 19,459 at the Eastham/Wellfleet town line to 26,864 just south of the Cape Cod National Seashore Visitor's Center. Further traffic count data for locations sampled along Route 6 and significant local roads is reported in the Cape Cod Commission's annual traffic counting reports. There are no clear trends in traffic volumes in recent years.

This plan strives to create a vision for an integrated transportation system. It recognizes the importance of Route 6 to the town and regional road system; the need to make Route 6 safe and efficient; and that maintaining/preserving character and environmental resources are important priorities when considering widening roads and intersections. It identifies the preference for adjusting current development potential through open space acquisition, land use changes, and the provision for public transportation stops at appropriate residential and commercial locations. It also recognizes that coordination with our neighboring communities; the region and the State are necessary to address our transportation issues. This could be accomplished by active participation on the Cape Cod Regional Transit Authority, involvement and input with the Cape Cod Transit Task Force, and working closely with the National Park Service.

There were two specific conditions that were identified in the plan that should be addressed. The first being the multitude of existing curb cuts along the Route 6 corridor. Curb cuts tend to add confusion and movement conflicts on a heavily travelled roadway. This is particularly problematic when there is no service road present. In recent years, a private endeavor between two businesses was implemented that allowed a small driveway service connection between the Fairways Restaurant and the Seatoller Shopping Center so traffic could flow without having to access Route 6.

Despite its less than desirable geometrics (steep grade, gravel surface, & limited sight), it has proven to be quite successful.

The second is the lack of service roads along the Route 6 corridor. Service roads tend to enhance the town shopping experience with the creation of an easy way to get from one business to another. This would be of particular benefit to the businesses themselves by creating opportunity for customers to stop in.

Eastham is primarily a residential community with 33% of the current developed land devoted to residential uses. The largest landowner in the Town is the National Seashore, which comprises 33% of the Town (See Land Use Section). Furthermore, nearly 60% of the homes are used seasonally. Eastham's existing transportation system consists of roads, limited bus service and bicycle/pedestrian travel. Eastham residents, like those in most other Cape communities, rely primarily on the automobile for transportation. The Cape Cod Rail Trail, a regional bicycle path, traverses the length of Eastham. A sidewalk runs along the West Side of Route 6 in Eastham. In addition, there are recreational bicycle paths and walking trails within the Cape Cod National Seashore.

Roadways

A total of approximately 6 miles of State road (U.S. Route 6) and 61 miles of accepted Town roads exist in Eastham. Route 6 is classified as a Principal Arterial by the Cape Cod Commission, and begins on Cape Cod at the Bourne/Wareham town line and ends in Provincetown, the northern most point on the Cape. This State Highway is a 4 lane undivided roadway in Eastham. It bisects the Town (east/west) running for 6 miles from the rotary at the Orleans border to the south, to the Wellfleet town line in the North. The speed limit along Route 6 is 40 miles per hour. The Eastham/Orleans Rotary is posted at 25 miles per hour.

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Land along Route 6 in Eastham is used for residential development, the Town municipal complex at the intersection with Samoset Road and several areas of high and low-use commercial activity. Millions of travelers utilize this route yearly to access the Cape Cod National Seashore. Route 6 is one of the heaviest traveled roadways (over 30,000 vehicles per average summer day on Route 6 in South Eastham) on the Cape and in Eastham serves the dual role of carrying through traffic to and from points further out on the Cape, and functioning as the Town's "Main Street". Local pedestrian and vehicular traffic competes with through (high-speed) traffic. Conflicts of the residential traffic with through traffic result from slower stop-and-go traffic caused by frequent crossings, left-hand turns, and access to and from driveways along Route 6.

During peak hours in the summer, congestion occurs along Route 6 between the Salt Pond Road traffic signals and the Orleans rotary. A major volume travels to the National Seashore and to Provincetown for whale watching and other activities. Currently winter conditions along this same segment of Route 6 are considered not congested. Projections for future “off season” volume are for high to very high congestion.

Paralleling Route 6 to the west, Bridge Road, Herring Brook Road and Massasoit Road form a secondary link between the Towns of Orleans and Wellfleet, and link residential neighborhoods. These roads are primarily residential in nature. Nauset Road to the east of Route 6 links the Salt Pond area of Town to North Eastham. Primarily residential in nature, Nauset Road also carries traffic associated with the Cape Cod National Seashore and the Nauset Regional High School. These roads are generally not congested anytime during the year.

Samoset Road which runs from Route 6 at the Town Hall west to First Encounter Beach and Brackett Road from Nauset Road westerly to Route 6 are generally not congested during the late fall and winter months.

The condition of existing local streets differs widely. Some have adequate pavement and shoulders; others are not well paved and are of irregular widths. The Town has recently completed a pavement management plan and initiated improvements. Nevertheless, a desire for the “tree lined” street may conflict with freer and faster traffic flows.

There are no intersections with a significant number of major accidents on Route 6 north of Brackett Road to the Wellfleet town line. Locations where there are a significant number of major accidents [one thousand dollars ($1,000) and/or personal injury] along Route 6 are listed below, along with the number of accidents and the year in which they occurred from 2002 to 2008.

Table 22: Major Traffic Accidents along Route 6

Year	Orleans Rotary	Governor Prence Rd.	Samoset Road	Nauset & Locust Rds.	Massasoit Road	Main Street	Brackett Road	Misc.
2002	10	2	7	8	1	2	7	83
2003	12	0	7	10	2	2	2	108
2004	21	2	8	6	2	1	8	75
2005	11	0	9	6	2	1	3	91
2006	12	4	7	5	2	0	7	76
2007	10	0	6	2	4	0	5	66
2008	10	2	2	0	3	0	3	54

Source: Eastham Police Department, 2009

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In addition to Route 6, the intersection of Brackett Road and Old Orchard Road, has experienced a higher than normal number of traffic accidents. Roadside hazards include utility poles along Route 6 and other town roads. They are a potential traffic hazard for drivers inadvertently traveling off the roadway and, when damaged, may result in an interruption in power.

Bicycle and Pedestrian

The former New York, New Haven & Hartford Railroad was sold to the Commonwealth, which subsequently cleared the track to pave a bicycle and pedestrian trail known as the Cape Cod Rail Trail. This former railroad bed runs the length of Eastham, approximately six (6) miles, crossing under Route 6 near Old Orchard Road. The Commonwealth maintains this facility, although there are no public parking facilities in Eastham along this path. In addition, the Cape Cod National Seashore maintains a bicycle trail from the Salt Pond Visitors Center to Coast Guard Beach, both of which provide parking facilities. The Cape Cod National Seashore bicycle path and the Cape Cod Rail Trail are connected via a signed bicycle route along Locust Road and Salt Pond Roads.

Provisions for bicyclists and pedestrians are abundant throughout the lands of the Cape Cod National Seashore. These serve transportation (access to beaches) as well as recreational uses. However, information for users is extremely limited.

Route 6, which as noted earlier is the “Main Street” in Eastham, bisects the Town and has sidewalks on the western side, along its entire length in the Town. Signal controlled pedestrian crossings exist at the intersections of Samoset Road and Salt Pond Road with Route 6. Salt Pond Road provides access to the Seashore's Salt Pond Visitor Center. These receive low to moderate pedestrian use. Year round maintenance of sidewalks is necessary to improve and promote pedestrian travel including: snow removal; brushing, mowing, trimming; and annual sweeping. No other signalized intersections along Route 6 provide special signal phasing for pedestrians, although crosswalks are provided on two approaches at Brackett Road.

Parking

Town controlled public parking facilities exist at Eastham's Town Beaches and Landings, the Public Library, the Town Hall, Rock Harbor, and the Eastham Elementary School. In addition, there is parking at the Nauset Regional High School, and the Cape Cod National Seashore's Salt Pond Visitors Center, Nauset Light Beach, Doane Rock Parking Area, Little Creek Parking Area and Coast Guard Beach. Parking for commercial facilities both large and small exists primarily along Route 6 on the premises of the businesses. There is a need for additional study of parking needs, including secure and convenient bicycle parking, parking for Eastham’s beach users; shuttle parking facilities and parking for cars to drop-off/pick-up shuttle riders.

A limited space for parking is available for visitors to Eastham’s ocean front property at both Nauset Light and Coast Guard beaches. This property does not provide access to the beach but does provide a natural environment for hiking and observation of the flora and fauna of the area.

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To summarize, the existing conflicts in transportation with present growth and land use include:

- Portions of Route 6 are congested during peak hours in the summer months. Traffic demands on Route 6 result from the amount of present land development served by Route 6 and growth in summer population, tourists and visitors within the sub-region, and the lack of sufficient, accessible, consistent public parking.

- Over capacity conditions currently exist along Route 6 for travel to and from other Outer Cape towns, resulting in long delays during peak hours in the summer.

- Currently, the number of access locations and the spacing of access to private developments along Route 6 are inconsistent with the roadway function as a major road. Traffic exiting private development at uncontrolled intersections experience long delays during peak hours all year around.

- Currently, many developments along Route 6 have no alternatives to Route 6 for locating access to the property.

- Currently there are insufficient alternatives to the automobile for travel within the Town and for trips made to and from the Outer Cape area.

Analysis of Future Conditions

The Outer Cape Capacity Study conducted in 1995 by the Cape Cod Commission, and more recent studies which predict increased traffic in the "off season", characterized future summer peak hour travel demands with several land use scenarios and with the existing transportation system. The three future land use scenarios developed include:

- Future Land Use in Year 2020 with Current Zoning
- Build-Out under Current Zoning, likely to occur after Year 2020
- Build-Out with a Conversion of Two-Thirds of Seasonal Housing to Year-round

For each of these land use scenarios, no changes in the existing roadway system, no changes in the current use of alternative modes, and no increase in the number of tourists visiting area attractions were assumed in the study.

Peak Travel Demands with Future Land Use in Year 2020 with Current Zoning

A forecast of future year 2020 traffic levels was developed which reflect anticipated increases in development and growth in background traffic. Traffic conditions were analyzed which assumed no increase in roadway capacity. The results of this analysis indicate that the entire length of Route 6 in Eastham is projected to operate at over capacity conditions during the summer. The analysis also indicates that over capacity conditions would occur on Bridge Road, which parallels Route 6. In addition, the southern portion of Herring Brook Road, also paralleling Route 6 would be congested. During winter, only about one mile of Route 6, the segment just north of the Orleans rotary would be congested. Thus, winter conditions will be approaching current summer traffic conditions with congestion expected along Route 6 north of the Orleans rotary. This trend is consistent with growth in traffic for the last 20 years all over Cape Cod.

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Peak Travel Demands at Build-Out under Current Zoning

During peak hours in the summer, traffic conditions under this scenario are projected to be worse than projected for the Future Land Use in Year 2020 with current zoning. During the peak hours in the summer, the entire length of Route 6 and Bridge Road would continue to operate over capacity, and all of Herring Brook Road but north of Old State Highway/Oak Road would operate over capacity. Some portions of Herring Brook Road north of this location would be congested.

During the peak hours in the winter, the same conditions would continue as described in the Future Land Use in Year 2020 with current zoning. Only about one mile of Route 6, the segment just north of the Orleans rotary, would be congested.

Peak Travel Demands at Build-Out and a Conversion of Two-Third Seasonal Housing to Year-round Residential Use

During the summer peak hour, traffic conditions are projected to be the same as described in the Build-Out with current zoning scenario. The entire length of Route 6 and Bridge Road would continue to operate over capacity, and all of Herring Brook Road but north of Old State Highway/Oak Road would operate over capacity. Some portions of Massasoit Road north of Old State Highway/Oak Road would be congested.

During the peak hours in the winter, traffic conditions would be worse than described in the Build-Out with Current Zoning Scenario. Route 6 between the Salt Pond Road traffic signals and the Orleans rotary would be over capacity. The remaining portion of Route 6 would be congested. At the same time, the entire length of Bridge Road would not be congested. Thus, during peak hours all year-round, the entire length of Route 6 would be congested with some segments over capacity. At the same time, segments of other parallel roads would be congested.

Summary of Potential Future Transportation Problems

This comprehensive plan recognizes the complex interrelationship between growth, land use, provision of infrastructure and services, access to jobs and educational opportunities, tourism, the maintenance of community character local demographics and the environment. Growth influences land use, which in turn influences the transportation system and ultimately the environment. The Town expects to continue to attract new development which includes growth in tourist summer population, and visitors to continue. More recent studies by the Cape Cod Commission, The Cape Cod Joint Transportation Committee and the RTA broaden this study to provide a vision of all transportation factors. The Outer Cape Capacity Study (OCCS) provides a glimpse of new development, how much would occur, and when buildout would occur.

The OCCS plan recognizes that a future for Eastham which achieves a desired future growth, land use, transportation system and environment must resolve potential conflicts with the transportation system and the costs for additional infrastructure and services. Future growth will increase the demand for accommodative travel facilities in order to increase highway capacity and improve safety. Controlling the number and location of curb cuts to accommodate small groups of residences and businesses could reduce interference with highway traffic.

As noted earlier, the dual role of Route 6 as the regional highway and "Main Street" does not go unnoticed by residents of Eastham. This dual role creates a precarious situation and is considered to be the major transportation concern not only for the safety of the residents but as a threat to the semi-rural character of the

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Town, especially, but not exclusively, during the summer months. The two functions of the road are incompatible with the residential character of the area. Route 6 provides little "friendly" access for the pedestrian or bicyclist, with only two (2) pedestrian signals located along the six (6) miles of roadway and a posted speed limit of 40 miles per hour.

Traffic volumes compiled by the Cape Cod Commission show that half (1/2) of all traffic entering Eastham along Route 6 at the Orleans rotary exits in Eastham, leaving the remaining half (1/2) to travel northbound to Wellfleet, Truro or Provincetown. It is inevitable that the Town will continue to share both the positive and negative impacts associated with the National Seashore and through traffic. It is also inevitable that the Outer Cape will continue to remain a destination for those who wish to explore the natural landscape of the area. This makes it essential that the town government work closely and officially with the National Seashore and other regional transportation organizations.

Roadways

The Massachusetts Department of Transportation has proposed several traffic mitigation measures for Route 6. The State and the Cape Cod Commission are continuing to study the route and are currently considering the long-term impacts associated with the current Route 6 road design from Dennis through Orleans, including the impacts that would be placed on Eastham. While the long-term destiny of improvements to Route 6 are beyond the Town's jurisdiction and lie with the State, the Town recognizes it plays a key role in the viability of any long-term solutions by controlling land use activities within its jurisdiction.

Additionally, the Town intends to work with the Commission on its Regional Infrastructure and Facilities (RIF) initiative to find solutions to transportation problems beyond its boundaries which impact Eastham, particularly Route 6. A key component of this planning initiative is integrating infrastructure, land use and environmental considerations to direct growth to locations most suited to support it.

Given the current traffic level experienced by the Cape and specifically the National Seashore, additional corrective measures must be undertaken along Route 6. During the peak tourist season (mid June to Labor Day), the Seashore receives approximately half of its five million (5,000,000) visitors. It is during this time that most of the accidents and other traffic-related problems associated with a high volume (e.g., parking and congestion) occur.

The long range vision for Eastham's roadway system is to ensure that future needs for travel within the Route 6 corridor do not cause the need for additional through lanes beyond the existing four through lanes. The only way this can be accomplished is through adjustments in the amount and intensity of future development in Eastham and the preservation of land for open space and increased use of public transportation. The Land Use and Open Space sections further address this issue and propose explorative measures to control curb cuts and limit/control development intensity in the corridor to reduce traffic conflicts, improve circulation and public safety. The vision for Route 6 also includes incorporating changes that would reduce the number of conflicts with current access. Further study of the Route 6 corridor is needed to establish an access management by-law for development, the development of collector roads linking individual commercial developments with Route 6, additional left-turn lanes along Route 6, and the locations where signalization may be needed in the future. The development of new collector roads may be difficult due to the right-of-way and environmental constraints.

A Massachusetts Department of Transportation study of Route 6 recommended improvement on Route 6 at Governor Prence Road, where the "hump" was leveled to improve line of sight. Major work also included new

traffic signals to optimize timing and visual “walk” signals for pedestrians and bicycles at Samoset Road, Brackett Road, Governor Prence Road, and the Salt Pond National Park Visitor’s Center.

A project to rehabilitate Brackett Road has been in the planning stages for many years and was implemented in 2009. The project consists of improvements to the section of Brackett Road between the Cape Cod Rail Trail and Route 6. Also included are updates to Brackett Road / Route 6 / Old County Road intersection (separate turning lane onto Route 6 from Brackett Road and re-timing the traffic signals). While primarily a repaving project, many other improvements have been incorporated into the job. Additional improvements include the following:

- Construction of a sidewalk along Brackett Road and improved pedestrian crossings at Route 6. The sidewalk was constructed on the south side of Brackett Road. A proposed sidewalk on the north side of the road is planned as a separate project at a future date.

- Consolidation of curb cuts at the Village Green Shopping Plaza to improve safety and traffic flow – the three curb cuts closest to Route 6 were closed and a new curb cut constructed at the eastern end of the parking lot. A fence was removed and minor grading changes were made near the Village Green Shopping Plaza to connect the two existing lots at the plaza.

- Provision of a small paved shoulder and bicycle friendly edging (rather than vertical curb) along Brackett Road to make the road safer and encourage the use of bicycle traffic to and from North Eastham's village center.

- Drainage improvements made to Brackett Road as well as a landscaped stormwater detention area just west of Holmes Road.

The intent of the proposed project was to provide improved traffic flow, better pavement conditions, and to create a safer environment for pedestrians and bicyclists. It is anticipated that the proposed project can create a "sense of place" for North Eastham and encourage greater foot and bicycle traffic to area businesses.

Signage

Route 6, from Provincetown to Bishop, Ca. is officially known as the “Grand Army of the Republic Highway.” A sign at the Rotary into Eastham should note this designation. The rotary and other recently installed signs along Route 6 do not meet federal guidelines. Federal guidance to reevaluate signage is scheduled for 2012.

Advance signage of destination towns, distance, and junctions with Route 6 and 28 are missing. Yield signs should be placed on the left of the roadway as well as the right in order that drivers – who are looking left at traffic already circling the rotary – will realize that they do not have the right-of-way when entering the rotary. Pavement marking should be painted on the roadway to emphasize the yield requirement. Signs indicating “No Turns” should be replaced by the symbol sign for “No Left Turn.” To encourage driver observation of the 40-mph speed limit on Route 6, appropriate signs should emphasize enforcement of this limit. Consideration should be given to installing blue service guide signs in advance of both Eastham Center and North Eastham showing symbols for service available (i.e. gas, food, etc.).

Signage on town roads has been added incrementally over the years, leading to significant clutter and distractions from the key messages. Compounding this problem, warning signs that are no longer needed have never been removed (there are many examples of signs advising of “Blind Driveways” that are now easily

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visible; a “Deaf Child” sign on Massasoit Road remained long after the two individuals in question reached adulthood).

Signage employs an inconsistent mix of words and symbols to convey the same message. In many instances, warning signs are ineffective because they employ two or more words to get their message across with the result that they are hard to read and absorb by the driver moving at the posted speed limit. Moreover, they may be unintelligible to foreign visitors of immigrant workers with limited knowledge of the English language. For instance, a sign such as “Bike Crossing Ahead Use Caution” (on 5 lines) should be replaced by the simple symbol of a bicycle.

When the Federal Highway Administration’s Manual of Uniform Traffic Control Devices offers a choice between a symbol sign and a word sign (for regulatory, warning, guide, and direction signs), the former should always be selected.

Bicycle and Pedestrian

Pedestrians and bicyclists for transportation and recreational purposes rely heavily upon the Cape Cod Rail Trail through Eastham. The Town should make every effort to encourage these uses with a locally based marketing approach for all visitors and year-round residents, which encourages non-automobile travel. New signage has been installed along bicycle and pedestrian paths to clarify where intersecting roads lead. Distance markers would be especially helpful.

Improved connections between the Cape Cod Rail Trail and Seashore bike path to other areas in Town are needed. In addition, bicycle travel along Route 6 should be discouraged by safe alternative routes.

Sidewalks, where they exist along Route 6, are utilized but pedestrian crossings, however, for the most part are absent. The area of Brackett Road and Route 6, with perhaps the most commercial activity in Town, has limited sidewalks and new sidewalk crossings. Many residents along Massasoit Road, Oak Road and the Old State Highway utilize this commercial center of Town, and would prefer to access the businesses by bicycle and foot. Therefore, sidewalks and a pedestrian crossing would be appropriate for this area. Additional pedestrian crossings and sidewalks should be considered at each of the problem areas identified above. The sidewalk along the eastern side of Route 6 is unsafe in several respects for both pedestrians and bicyclists. Utility poles are often planted in the middle of the path, making passage difficult, curb cuts remain where there is no longer a driveway, and snow is not removed.

Parking

Despite a considerable amount of Town controlled parking, there are severe parking constraints in certain areas. Lack of parking for tourist-related commercial establishments (North Eastham) and attractions (Library, Windmill and beaches) pose a serious problem for vehicular circulation. This situation coupled with an increase in bicycle and pedestrian traffic, as well as parking requirements associated with the Cape Cod Rail Trail, only exacerbates the situation. Although municipal parking lots are provided for various Town buildings and recreational sites, there is little parking provided for tourist-related activity; therefore, as increases in tourism and population occur, additional parking facilities should be considered for both the Seashore and Bayside beaches.

By maximizing the use of existing parking areas and limiting the creation of new parking, controlling the capacity of available parking is one of the best ways to encourage the use of alternatives to automobile travel.

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To improve transit opportunities for residents and visitors traveling within Eastham, creation of shuttle bus service with routes within a short walk of major parking lots, principal residential areas and motels, traveling to popular destinations (i.e., beaches and attractions), would encourage users to “leave their cars behind”.

Prior to the construction of additional parking facilities, the Town should explore complementary use of existing parking. For example, peak-parking demand for Cape Cod Rail Trail parking occurs on weekends and summer weekdays. The Orleans District Court House parking has limited weekend use; the Nauset Regional High School parking lot has limited summer use. The Town should work closely with the National Seashore to ensure that adequate parking facilities and safeguards are in place. If the need arises for additional Seashore parking facilities, the Town may wish to provide satellite parking and shuttle service for a fee. Prior to expanding Town parking facilities, the Town should consider the additional strains that may be placed on other resources. For example, increasing beach parking must be accompanied by staffing for supervision and sufficient rest room capacity.

Public Transportation

A survey done by the Lower Cape Community Coalition 2002 showed a need for transportation service for jobs, recreation, and travel between towns. Flex Bus has been established and success of this service will increase opportunities for employment and recreation as well as reduce highway congestion.

With the anticipated increase in population, especially among older residents, an increase in dependency on public transportation will occur. Figures recently published in the Cape Cod Voice indicated that Eastham ranks 10th in the Commonwealth in residents 65 and older. Increases in tourist-related traffic may make some reluctant to drive. These factors point to a need for increased door-to-door van service or for a coordinated pick-up service to central bus stops. Fast, reliable and frequent bus service between Eastham and other major destinations such as Hyannis, Cape Cod Community College, Boston, and the regional airports would benefit job seekers, residents and tourists. Shuttle bus service between Outer Cape towns and the National Seashore beaches in Eastham and Wellfleet should be considered to relieve summer traffic congestion on Route 6.

The following recommendations are made in an effort to improve the existing level of transportation service to the Town of Eastham. In order to accomplish many of the actions listed below, the Town must work with other Outer Cape communities as well as regional and state agencies such as the National Seashore, Cape Cod Commission, the Cape Cod Regional Transit Authority, the Massachusetts Department of Transportation and the Cape Cod Joint Transportation Committee. An active voice on the Regional Transit Board is essential. Eastham should also appoint a Transit Task Force with representatives from the COA, Seashore, Highway Department, Regional Transportation Authority, Nauset Schools, Selectmen, and the Chamber of Commerce.

Further study of the Route 6 corridor is needed, including investigation of an access management by-law for development; the development of collector roads linking individual commercial developments with Route 6; additional left-turn lanes along Route 6; and the location where signalization may be needed in the future. This study should include cost estimates and funding sources, such as property tax revenue, new development impact fees, and state transportation funds.

Transportation improvements for Route 6 should include changes to reduce the number of conflicts with access and land use adjustments in the Town to eliminate the need for additional through lanes.

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Implementation

Recommended Town Actions

A. Identify areas in need of curb cut reductions and/or access improvements and make recommendations for the accomplishment of these reductions to the Massachusetts Department of Transportation. The Planning Board should develop a comprehensive strategy for reducing and limiting curb cuts along Route 6 in coordination with the Massachusetts Department of Transportation.

B. Develop an aggressive open space preservation program to reduce the build-out potential of the Town (see Open Space section).

C. Establish a traffic impact assessment program to require an evaluation of the impacts of new developments and expansions (especially non-residential) on Levels of Service for local and state roadways.

D. To enhance and maintain public safety of the bike trails, the Town should initiate a program to inform both the Commonwealth and National Seashore of needed maintenance to their respective bike trails.

E. Sidewalks should be extended along the easterly side of Route 6 in the vicinity of Massasoit Road, Oak Road and the Old State Highway, as well as other areas, which are heavily used by pedestrians.

F. Identify and re-establish (if appropriate) any abandoned rights-of-way. Right of ways may be designated as pedestrian only, pedestrian and bicycle access, or vehicular traffic.

G. Work with the Massachusetts Department of Transportation to develop a sidewalk maintenance program/agreement for Route 6, including regular mowing, sweeping and plowing to enhance pedestrian safety.

H. Work with the appropriate agency(s) to remove, relocate or bury utility lines adjacent to roadways.

I. A Town Hall area plan should be created to include signage, lighting, sidewalks, undergrounding of utilities, and additional traffic mitigation measures for this area, both to slow traffic and to increase the awareness of Eastham's civic and historic (Windmill) center.

J. Begin to identify Route 6 as "Main Street" or "Grand Army of the Republic Highway" to give Eastham a greater sense of place. Signage entering the Town can emphasize this recognition, which should distinguish this portion of Route 6 from any other.

K. The Bikeways Committee recommends improvements and has encouraged bicycle use for both recreational purposes and commuting to neighboring communities (see Open Space section). Consideration should be given to installation of bicycle racks and rentable storage bins in appropriate locations. Bicycle racks should be provided at all Town beaches, in environmentally appropriate locations. The Town should work with the State and National Seashore to maintain bicycle paths, including regular mowing, sweeping and plowing. The committee should also encourage the State to consider additional Rail Trail parking including using school parking lots, the Orleans District Court parking lot and other locations that are not heavily used on weekends or during the summer. These options should be explored prior to the construction of new parking lots.

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L. Increase buffers and/or adopt a land coverage requirement to reduce the intensity of nonresidential development and resulting vehicle trips per day.

M. Update and Implement the recommendations of the Eastham Pavement Management Study, and include the Cape Cod Rail Trail and National Seashore bicycle path as part of the program. The Town should coordinate with the State and National Seashore to ensure adequate maintenance of bicycle paths.

N. Provide signage along the Cape Cod Rail Trail to indicate beaches, commercial areas and other attractions within the Town.

O. Work with neighboring communities, the State, the Cape Cod National Seashore, Cape Cod Regional Transit Authority and other public transportation agencies to improve seasonal bus service in the Outer Cape, including increased shuttle service to National Seashore beaches from remote parking areas and town center locations. The Town should explore the feasibility of using existing parking lots to meet seasonal needs. The Town will work to identify and create appropriate bus stops and shelters.

P. Explore ways to increase the usage of regional transit services; i.e., encourage employers to provide passes for their employees.

Q. Local by-laws should be considered to increase lot size and the frontage of lots on Route 6.

R. Purchase available land that fronts on Route 6.

S. Traffic signals on Route 6 should include “walk” signals for pedestrians and bicycles.

T. Ensure Highway signage is in accordance with the Manual of Uniform Traffic Control Devices.

U. Require regulatory and warning traffic signs that employ symbols.

V. Remove inappropriate and unnecessary traffic signage.

W. Work with Massachusetts Department of Transportation and the Cape Cod Commission to pursue installing a traffic signal at the Route 6 / Governor Prence Road intersection to improve traffic and pedestrian safety. Including a pedestrian crossing phase would provide safe access for residents on the east side of Route 6 to the existing sidewalk network located on the westerly side.

X. Potential construction of a service road that parallels Route 6 to allow traffic to flow from one business to another without the need to enter the Route 6 traffic flow. This would allow a more uniform traffic flow without the creation of conflict movements. The additional benefit would be the reorganization of curb cuts which would help in creating a more uniform traffic flow.

Y. Creation of a road loop that would connect Route 6 in the vicinity of the Four Points Hotel to Brackett Road. This would require the construction of a public road that would be instrumental in the expansion of District C zone from its present boundary at the end of Holmes Road to the vacant lands to the South. With this in place, the creation of a new Professional Office, Technology, and Industrial Park adjacent to the Holmes Road could become a reality.

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See “Transportation”, “Capital Facilities and Infrastructure”, and “Land Use” in the Implementation section.

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XIII. COMMUNITY FACILITIES - SOLID AND HAZARDOUS WASTE MANAGEMENT

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for Solid and Hazardous Waste Management. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.

The goal is to manage solid waste using an integrated solid waste management system that includes waste reduction, recycling, reuse, and composting. The underlying intent is to maximize the reduction of trash as the means to minimize costs and environmental damage. The hazardous wastes generated in Eastham shall be disposed of in an environmentally sound manner at a facility approved by the DEP.[21]

Existing Conditions

The Eastham Board of Health has adopted regulations, which address the management of solid waste and recyclable materials, and transfer station operational standards. The regulations require the separation of compostable and recyclable materials from refuse which goes to SEMASS or to a landfill. These regulations supplement 310 CMR 19.000, which the Town of Eastham adopts for enforcement purposes.

The Eastham Transfer Station in the Fiscal Year ending June 30, 2001 handled 3924 tons of trash including 3411 tons that were sent to SEMASS for incineration and 513 tons of trash that was sent to the Bourne landfill for disposal. In addition 920 tons were recycled instead of being disposed of as trash; 30 additional tons were moved through the Eastham Stock Exchange (swap shop) to be reused. Residents purchased 80 additional compost bins from the Town in 2001 to add to the large number of bins now in use. They provide another means to reduce the amount of trash that would be sent to SEMASS.

Many of the changes recommended in the second edition (2002) of the Local Comprehensive Plan have been successfully undertaken and the sorting and disposal of waste has much improved. In 2007, the transfer station received 3, 754 tons of trash which is 170 tons fewer than were collected in 2001. Such a change could be the result of general changes in the social and economic activity in Eastham as well as by policy changes. The year-round population and summer seasonal populations have increased, construction and demolition varies from year to year, fees are adjusted, and simultaneously at-home composting has been encouraged. The net result is a decrease in total tonnage of trash received, of which an increased proportion is recycled and re-circulated and a decreased proportion is exported to SEMASS for final disposal.

The contract with the SEMASS waste-to-energy facility for incineration of solid waste expires in 2015. As with most other Cape towns, Eastham's cost per ton is much lower than the current and projected market rates for disposing of trash at SEMASS. There is concern that a new contract may be at a much higher cost to the community. Visits to Nantucket and Marlborough were made to observe their solid waste composting facilities and consider the applicability of a regional composting process as a possible future alternative to SEMASS. Other alternatives need to be identified and considered. It is also recognized that strong efforts to divert

[21] Cape Cod Regional Policy Plan (2002); pp. 101-108

increasing amounts of materials to recycling, reuse and composting would enable Eastham to avoid sending related amounts of trash elsewhere and avoid some costs. Since these types of reductions repeat in future years they can be enhanced by additional future increases in recycling. The impact in 2015 on the amount of trash and cost that the community will need to address could be very significant.

The Town of Eastham collaborates with the Town of Orleans in the collection and disposal of hazardous waste. Citizens of both towns are encouraged to dispose of such waste on designated days throughout the year. Seasonal residents and contractor collectors who make special collections of recyclables have easy access to the transfer station.

Eastham's Board of Health has been involved in an effort whereby several towns would jointly take part in several Hazardous Waste Days each year. Such a step now provides citizens of each town the opportunity to connectively dispose of such waste and protect environment. Agreement among the towns has not been reached.

The majority of seasonal residents, including short-term vacationers, are not recycling during their stay in Eastham. The Town has a study grant from DEP which will explore what needs to be done to make it possible for vacationers to recycle on a source separated basis and what needs to be done to provide haulers the capability to unload bulk recyclables at the Transfer Station.

Implementation

Recommended Town Actions

A. Eastham should continue and possibly expand their joint efforts with other Cape towns to improve recycling methods and otherwise dispose of construction, demolition debris, mattresses, DPW / wastes, and the by-products of the Tri-Town treatment facilities.

B. To offset the increased cost of disposal for non-recyclable and recyclable solid waste, Eastham should focus on maximizing recycling by making recycling easy, by promoting access to recycling for seasonal residents, and by utilizing other incentives to recycle such as unit based pricing.

C. Eastham should consider funding for an annual household hazardous waste collection for residents to dispose of accumulated hazardous waste.

D. Eastham should adopt a toxic and hazardous materials bylaw to prevent the improper use, storage and disposal of such materials, utilizing the Barnstable County model bylaw or other similar bylaw.

E. Eastham should continue its joint efforts with other towns to collect to work toward multi-town joint participation in the collection of hazardous waste toward a goal of providing citizens the opportunity to drop off hazardous waste several times per year.

F. Eastham should continue to seek out alternatives to processing of solid waste including possible regional solutions and evaluate viable long-term alternatives to SEMASS.

See "Solid and Hazardous Waste Management" in the Implementation section.

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XIV. COMMUNITY FACILITIES - CAPITAL FACILITIES/INFRASTRUCTURE

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for Capital Facilities/Infrastructure. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.

Town of Eastham Goals and Performance Standards

Goal: To identify and provide state-of-the-art community and regional facilities which meet community and regional needs consistent with the goals and policies established in the Eastham Local Comprehensive Plan (LCP), Regional Policy Plan (RRP), and the Cape-wide Regional Infrastructure and Facilities (RIF) Plan.

Background

A discussion of capital facilities and infrastructures in Eastham is best handled as parallel but separate discussions. Capital facilities include municipal buildings, such as public safety structures, libraries, schools, municipal office buildings, parks and community centers. Capital infrastructure is generally considered as limited to structure supports such as roads, water service, solid waste disposal, wastewater management, utilities and telecommunications. The necessity for these capital facilities and infrastructures drives and limits population growth in a community. The growth in population in the Town of Eastham and the age of existing capital structures has required the town to engage in the renovation, expansion, construction and several major municipal capital facilities. Infrastructure improvements, primarily municipal water, and undergrounding of electrical service, have been so limited as to be non-existent.

Telecommunications upgrades have occurred as the local Cable Company rebuilds and includes an upgrade to fiber optic and high speed Internet for residential customers only. A major bridge across Boat Meadow Creek on Bridge Road was rebuilt, several local roads have been resurfaced to high quality asphalt and portions of Route 6, the main road in the town has been resurfaced and new drainage has been added.
Infrastructure improvements have kept pace with population growth in some areas and are woefully inadequate in others and overall have not been as focused and concentrated as would be necessary if this were to serve as a real growth tool.

The Regional Policy Plan encourages the development of infrastructure in such a way as to concentrate growth in these well serviced or Growth/Activity Centers and Growth Incentives Zones. Land use planning tools such as zoning, overlay districts, and incentive or bonus zoning may also prove useful in creating such zones. Surely, the infrastructure limitations will be the key component in shaping community growth and thus the relationship between community services and growth is very important.
New development agreements or special permit conditions can assist in funding or constructing needed infrastructure. But fiscal incentives to the town from the developer cannot hold sway over unwisely located infrastructures, which create growth opportunities inconsistent with the local and regional model of creating growth centers.

The Local Comprehensive Plan should provide the guidelines for the provision of needed services, including timing and funding. Such a plan examines the existing conditions and then suggests long-range goals.

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Existing Conditions

Since 1996, the Town of Eastham has completed the upgrade and renovation of several of the Town's fixed assets. A list of key projects included:

- Closure and capping of the active landfill site
- Renovation of the Eastham Town Hall
- Construction of a new Fire Station
- Reconstruction of Wiley Park Rest Room
- Renovations Eastham Elementary School

The Town of Eastham landfill, while still under Department of Environmental Protection (DEP) orders to continue testing and monitoring of gas and water quality, is completely capped and closed to the satisfaction of DEP. The project was completed at a cost of 1.1 million dollars. The funds were borrowed from the state's Water Pollution Abatement Trust for 0%. The Eastham landfill was one of the first in the state to take advantage of this funding source for landfill capping and was one of the first landfills on the lower/outer cape to be closed and capped.

In 1999 funding was approved for the construction of a new fire station. The new station built on the site of the old is more than twice the size of the old station and is expected to serve the needs of the citizens for the next twenty-five to thirty years. The station was complete in October 2001. It is capable of accommodating an overnight staff of eight, the garage area will hold eight pieces of equipment and gear, and the building is fully sprinkled.

In 1999 the Town applied for and was awarded a grant to reconstruct the bathhouse at Wiley Park. The facility was in poor condition and was not handicapped accessible. Using local and state funds the facility was upgraded and a ramp constructed to provide access to the water. This project cost in excess of $200,000.

In 1999 the Town was awarded a grant to construct a shellfish hatchery and training facility on town-owned land. The project resulted in the "greenhouse" like facility at Hemenway Landing. In 2009, the Hemenway facility was decommissioned and the program was moved to Salt Pond. The scope of the project also changed. The new facility is a 'nursery' where purchased shellfish seed is grown-out, not produced on site. This is a partnership between the Town and the Cape Cod National Seashore, so there will be interpretive signage to educate the public on aquaculture.

Additional Projects Under Discussion Include:

- Roadway maintenance (on-going);
- Study of potential well sites in Eastham;
- Extension of water supply lines connected to the Orleans system

Following is a listing of all existing town owned property over 5 acres. (This listing does not include landings, beaches, or open space.)

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Table 23: Town Owned Property over 5 Acres (Exclusive of landings, beaches and open space)

Property	Acreage
Old County Road (Blk.28 Lot 5)	5.00
Highway Department (555 Old Orchard Road)	18.93
Herring Brook Road (31 Wiley Park)	44.10
725 Samoset Road	17.06
1620 Samoset Road (26A Comfort Station)	29.52
End of Samoset Road	6.10
Lamont Smith	23.69
200 Schoolhouse Road (Eastham Elementary School)	11.40
Municipal Facilities (Town Hall, Fire, Police, Little League)	8.21
Candlewood and Forrest Avenue	16.70
Roach Property	63.30
Merrill - Samoset Road	0.50
Purcell Property	11.00

Source: Town of Eastham

Table 24: Town of Eastham Asset Inventory and Location

Title	Address
General Government:	
*Town Hall and Recreation Building	2500 State Highway (Rt. 6)
Public Safety:	
*Police Station	2600 State Highway (Rt. 6)
*Fire Station	2550 State Highway (Rt. 6)
Education:	
Elementary School	Schoolhouse Road
Public Services:	
Department of Public Works (DPW)	555 Old Orchard Road
(Garage, Tractor Shed, Shed)	555 Old Orchard Road
Roadway System (46.4 miles)	Throughout Town
Septic Waste System	
(Tri-Town Septage Plant, 1/3 owner)	Orleans
Solid Waste Disposal System	
(Transfer Station)	Old Orchard Road
Common Facility and Service Assets:	
Public Library	Samoset Road
*Senior Citizens Center	Nauset Road
Recreation System:	
Little League Field	2500 State Hwy. (Rt. 6)
Information Booth	Route 6
Comfort Stations (3)	First Encounter

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(Cont)	Cooks Brook Beach
	Wiley Park
Historic Site – Old Windmill	Route 6
Cemeteries:	
Herring Pond	Bridge Road
Congregational and Soldier's **	Route 6
Old Cove Burial Ground	Route 6
Public Beaches with Parking Lots:	
South Sunken Meadow	Off Sunken Meadow Rd
Cooks Brook	Off Steele Road
Campground	Off Shurtleff Road
Thumpertown	Off Thumpertown Road
Wiley Park	Off Herring Brook Road
Cole Road	Off Cole Road
First Encounter	Samoset Road
Great Pond	Great Pond Road
Herring Pond	Off Herring Brook Road
Rock Harbor (marina)	Off Dyer Prince Road
Collins' Landing (boat launch)	Off Route 6
Hemenway Landing (ramp & parking)	Off Route 6
Salt Pond (parking)	Off Route 6
Vehicles and Rolling Stock (40 units)	Throughout Town

Source: Town of Eastham *Emergency Facilities/Shelters plus Nauset Regional High School
NOTE: Nauset Regional, Eastham Elementary and Nauset Middle Schools are classified Emergency shelters. The Nauset Kennels is designated as emergency animal shelter/hospital. ** Privately owned but integral.

Funding information for town projects is provided below:

Table 25: Direct Debt Summary - June 30, 2001 and June 30, 2007

General Obligation Bonds Outstanding:	
Project	**Outstanding at 6/30/07**
Land Acquisition (Roach Property)	390,000
Land Acquisition (Purcell Property)	1,215,000
MWPAT Landfill Capping	614,782
MWPAT Septic Program	145,402
Fire Station Construction	1,350,000
Septic Repair Loan Program	190,000
Elementary School Addition	7,774,000
Transfer Station Renovations	850,000
Total bonds and notes payable	**$12,529,184**

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Debt Service Requirements

The following table sets forth the required principal and interest payments on outstanding general obligation bonds of the Town of Eastham, as of June 30, 2001.

Table 26: General Obligation Bonds Debt Service Requirements as of June 30, 2007

Fiscal Year Ending 6/30/01			
	Principal	**Interest**	**Total**
2008			
2009	$950,070	495,998	1,446,068
2010	947,297	450,999	1,398,196
2011	950,075	410,917	1,360,992
2012	958,000	367,820	1,325,820
2013	837,400	374,867	1,212,267
Thereafter			8,868,495
Total	**4,646,842**	**2,100,601**	**15,429,838**

Source: General Purpose Financial Statements Fiscal Year ended June 30, 2007

Authorized Un-issued Debt and Prospective Financing

There is no authorized but un-issued debt for the Town of Eastham. May 2002 ATM voted to borrow an additional $200,000 from the WPAT to fund septic improvement loans to homeowners.

Overlapping Debt

The Town of Eastham is in Barnstable County, is a member of the Cape Cod Regional Transit Authority, and one of twelve members of the Cape Cod Regional Technical High School District. The following table sets forth the outstanding bonded debt, exclusive of temporary loans in anticipation of bonds or current revenue of Barnstable County, the Cape Cod Regional Transit Authority, the Nauset Regional School District and the Cape Cod Regional Technical High School District as of February 14, 2002, and the Town of Eastham's gross share of such debt and the fiscal dollar assessment for each.

Table 27: Outstanding Bonded Debt with overlapping entities (with exclusions noted above)

Overlapping Entity	**Outstanding Debt**	**Estimated Share**	**Dollar Assessment**
Barnstable County	$1,040,000	3.23%	$157,598
Cape Cod Regional Transit Authority	$0	0.68%	$5,241
Nauset Regional School District	$15,015,000	22.94%	$2,940,624
Cape Cod Regional Technical High School District	$0	2.94%	$177,422

Source: Final Official Statement, February 14, 2002

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General Town Administration

Management Structure

The management structure of the Town is laid out in the Eastham Home Rule Charter. An appointed Town Administrator and a five member Board of Selectmen, elected at large for staggered three-year terms, form the executive branch of the government. The Town maintains an open town meeting as the legislative branch. In addition to appointed department heads, the charter identified an elected Town Clerk and Treasurer/Tax Collector, elected Board of Trustees to administer the Library, elected local and regional school committee members, and elected Housing Authority members. The Town Charter required that the moderator establish a Charter Review Committee in once every ten years or in any year ending in zero. In 2000, the moderator appointed such a charter review committee. They reported to the May 2000 Annual Town Meeting and several changes were adopted by that town meeting. The major change was to eliminate the elected Treasurer/Tax Collector position in favor of an appointed position. This changed was ultimately not made and remained a recommendation of the Charter Review Committee in 2009 and approved at the 2010 Annual Town Meeting.

General Town Facilities

The majority of critical town facilities are located in the area of Route 6 and Samoset Road. This area included the Police Station, Fire Station and the Town Hall, located on one parcel on the south side of Route 6. Directly opposite is the "windmill green" which functions as a town center for festivals and other events. The town recently added a "bandstand" to this area to complement the Windmill on this site. An antique style hand water pump and trough complete this picturesque setting. Two hundred feet along Samoset Road is the town library. Plans are under discussion to expand the library within the next ten years. The Town recently acquired the property next door to prepare for this expansion.

Town facilities are designed, expanded and improved in an effort to ensure that a sufficient level of service is maintained. One measure of level of service (LOS) is done by reviewing staffing levels or operational standards versus population. Table 28 below provides level of service measures for several areas.

Table 28: Outstanding Bonded Debt with overlapping entities (with exclusions noted above)

Category	Year-Round	Summer
Fire	438 people / FT fire fighter 13 FT fire fighters (+on call)	1,923 people / FT 13 FT (+on call)
Police	257 people/officer equiv. 22 FT officers Other Town Employees 3 per 250 dwelling units	1,086 people/officer equiv. 16 FT officers (plus 7 summer)
Roads	55 miles (town owned) Number of vehicles 1.7 per 1 total dwelling unit Vehicle trips/day 10 per residential unit	
Transit:		
Council on Aging	432 round-trips/yr. (.097 trips/person/yr.)	
B-Bus	2,213 one way trips	

Waste*:		
Solid Waste	7 Tons per day	19 Tons per day=3,695/year 2 Tons per day
Recycled Waste	0.9 Tons per day	
Schools:		
Number of Classrooms	4 per 100 students	
School Personnel	5 per 100 students	
Library	books/year 98,300 circulation/FY01	
Open Space	.89 acres/capita	

*Note: The waste collected represents waste from individuals, commercial establishments of different types, and a part of the Cape Cod National Seashore. In the summer the population swells with visitors who stay at campgrounds, cottage colonies, motels/hotels, cottages and homes as owners or renters and guests of others. They may or may not eat in Eastham. Garbage created may or may not be deposited at the Eastham transfer station because some commercial establishments and others may have their garbage hauled out of town under private contract.

General Town Administration Staffing

The Town Hall provides office space for the following departments and their staff, as listed below:

Table 29: Employee Staffing (2007)

Department	Staff
Assessing	3.5
Treasurer/Tax Collector	3.5
Town Clerk	3
Building**	1.5
Health**	3.5
Planning/Appeals	1.5
Accounting	1.5
Administration***	4
Data Processing**	1
Recreation	2

Notes: * The May 2002 ATM approved an increase in one of the part time positions to create 2 full-time, and 1 part time ** Building and Health share one full-time clerical staff person. May 2002 ATM approved increase in part time position to full time. So the health department will have available one full clerical plus the shared services. Also approved is a full time MIS person. *** One clerical staff member in this department also provides receptionist/switchboard duties

The town has made use of a Management Information System (MIS) consultant. Increasing computerization and implementation of a network to serve the new fire station and beach program supported the change of this to a full time staff position. The 1996 Local Comprehensive Plan, mentioned the possible benefit of a Finance Department, but pointed out that the elected status of the treasurer/tax collector precluded that option. If the charter changes mentioned are implemented, this may be a more viable option in the future. Currently the finance group works collectively as is appropriate.

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General Administration - Equipment/Service

The primary goal of any government is to cost effectively deliver the best services to its citizens. Technology is one way to efficiently enhance service.

The Police and Communications departments are housed in the police facility completed in 1989. The communications department handles both police and fire dispatching. The town investigated using regional dispatching services offered by the county as part of a transition to E911, and determined that the local dispatching effort was preferable at that time. Currently the department is well equipped and well staffed to provide dispatch and medical assistance now and into the future.

Table 30: Police Department Staffing (unchanged since the 1996 Plan)

Police Chief	1	Full-time
Deputy Chief	1	Full-time
Sergeants	3	Full-time
Prosecutor /Detective	1	Full-time
Detective	1	Full-time
Patrolmen	7	Full-time
Part-time Officers	5	Year-round, Part-time
Summer Officers	2	Temporary, Seasonal
Communications Center:		
Dispatchers	4	
Dispatcher/Records Clerk	1	
Dispatchers, Part-time	4	

Source: Police Department, 2009

The Police Department and Communications Center are housed in a facility constructed in 1989-90. The building was occupied on May 10, 1990. It is in good condition and repair. It is located on approximately one acre of land and has sufficient parking for its current use. The facility was designed to accept internal growth but as any structure nears ten years, mechanical systems need review as well as space needs. This building is examined regularly to determine its capacity to provide sufficient spaces for the expected growth of the department. The facility has emergency power with a 100 KVA generator with instant auto start. The detention portion of the building consists of five cells: one juvenile detention, one female, and three cells for males.

The Police Department currently (2009) has the following vehicles:

- Five (5) 2004-2009 Crown Victoria police cruisers
- One (1) 2006 Ford F150 four-wheel drive vehicle.
- One (1) 2006 Ford Explorer
- One (1) 2010 Ford Taurus

Each of the aforementioned vehicles is fully equipped with radios, etc. The Chief of Police and the Lieutenant also have radios in their private vehicles for emergencies. The department has issued police portable radios to all of the full-time officers and has several spare older radios for the summer and temporary staff. Recently the department added “Nextel” cell phone radios to assist in communication among senior staff.

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The Eastham Police Department is a member of the Barnstable County Narcotics Task Force and is a signatory to mutual aid agreements with the towns of Orleans, Wellfleet, Brewster, Harwich and the United States National Park Service.

Fire Department

The Fire Department has 13 full-time fire fighters, a chief officer, and a clerk. All full-time emergency personnel are cross-trained in both fire suppression and emergency medical services. Call staff have the same level of certification as the full-time staff. The clerk provides necessary administrative support in addition to managing ambulance billing and collections.

Table 31: Fire Department Staffing

Fire Chief	1
Deputy Fire Chief	1
Shift Captains	4
Firefighters	12
Administrative Assistant	1

Source: Fire Department, 2010

Equipment and Apparatus:

- Two (2) Class 1 ambulances licensed at the Advanced Life Support level
- Two (2) Class 1 pumpers, each with the capability of carrying 1,000 gallons of water plus all the necessary equipment for initial and sustained fire ground operations One sedan for the Chief's use and for use as an incident command vehicle One 4x4 pickup truck for off-road access, inspection work and for towing supplemental equipment.
- One (1) Avon motor-powered boat
- One (1) Portable lighting/air cascade system
- One (1) sedan for use as an inspection vehicle.

The new station completed in 2001 will allow the town to acquire additional necessary fire suppression equipment. The first to be acquired will be a tanker/ pumper. The May ATM appropriated $85,000 towards this purpose.

Fiscal Resources

The Fire Department relies on its share of municipal funds, but as activity has increased, additional sources of funding have had to be developed. Eastham was the second community in Barnstable County to introduce billing for ambulance transports. This program has been ongoing for the last 12 years. The revenues assisted in the purchase of capital equipment such as replacement ambulances, Scott air packs, medical equipment upgrades and direct budgetary funding.

Future Fire Equipment & Manpower Needs

Today's modern Fire Service recognizes the need to provide top-level pre-hospital emergency medical care. This department's major contribution in the form of aid rendered is medical (approximately 80%), with the

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remainder being fire suppression and code management. Fire fighters and emergency medical technicians also face hazardous materials, which were nonexistent or no source of concern during the early development of the department. Bio-medical hazards, such as HIV, TB, and Hepatitis B are now an everyday reality. These facts, together with the demographics of the population and the distance to the hospital contribute to the need for more staff and more highly trained staff as the department moves into the twenty-first century.

Public Works

The Department of Public Works has three primary areas of responsibility: 1) solid waste and recycling; 2) road and town-owned parking lot repair and maintenance; and 3) limited grounds keeping, and building and facility maintenance duties. While all department staff assists in all areas as needed, the general structure of the department assigns staff as below:

- Solid waste/recycling - 3
- Highway, grounds, building & facilities maintenance and repair - 5
- Shared clerical services - 40%

The town owns the following equipment:
Item, Year Purchased

- 444 Loader, 1998
- 5400 Tractor, 1996
- Street Sweeper, 1995
- 1-Ton Dump Truck, 1994
- 1-Ton Dump Truck, 1995
- Basin Cleaner, 1996
- 2, 6 to 8-yard Dump Trucks, 1989
- 1 Roadside Mower, 1973
- Mich. Loader, 1990

Solid waste is handled at a town-owned transfer station located at 555 Old Orchard Road. The transfer station was opened in 1989 and includes a recycling facility currently handling glass, cans, newspapers, plastic milk jugs, metal goods, demolition debris, and yard waste, waste oil and recyclable goods. A redesign of the facility to accommodate a greater variety of recyclable materials, improve traffic flow, and upgrade major equipment such as the scales has been completed recently.

Road maintenance and repair is funded by Chapter 90 money and town funds. The town uses gravel brought from its own sand pits located on Old Orchard Road to repair non-asphalt roads. Asphalt road repairs are eligible for Chapter 90 reimbursement. Oil and sand road repairs rely on town funding.
The DPW equipment needs are a major part of the annual capital expenditures, and while the department continues to rent equipment and operators as needed, all town owned equipment is current and kept in good repair, and replaced as needed.

Natural Resources

The Natural Resources Department provides management of the various environmental services of the Town including shellfisheries protection and propagation, herring runs, harbors and landings facilities and activities, Conservation Commission administration and open space land management. Recently, shellfish propagation

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activity was enlarged with the location of a shellfish hatchery and training facility at Salt Pond. Both long-term seasonal staffers work in this facility. Additionally, the department is staffed year-round with four full-time personnel: 2 long term seasonal and 3 short-term seasonal assistant Natural Resources Officers. A clerk provides administrative support for this department and the DPW at 60% full time equivalent.

The equipment utilized in this department includes:

- Four four-wheel drive pickup trucks
- Two outboard patrol vessel
- Two outboard work skiffs
- Various outboard motors, pumps, navigation and communications electronics, computers and laboratory equipment.

The department is supported by appropriations from the General Fund. The fees collected for shellfish permits, dockage and moorings are returned to the General Fund. Shellfish permit fees are variable from year to year due to the variability of shellfish stocking. Fees collected by the Conservation Commission associated with wetlands projects are reserved and used for the administration of the wetlands statutes.

The department is housed in a facility on Old Orchard Road which was renovated and expanded in 1990. Capital improvements related to maintenance and replacement of vessels and equipment exposed to salt water environments are made on a regular basis. New methods of shellfish propagation are utilized as they develop.

Educational programs are conducted both informally through visitor contacts and informational brochures and publications as well as formally through various school programs and lectures. The staff of this department addresses a variety of ongoing activity and interaction with the public. Whether the question is about public shellfish programs, aquaculture, beach erosion, boating safety, marine mammal strandings, or other natural resource matters, the goal is to protect the resources by helping humans who live or visit here appreciate the gifts of nature that Eastham has to offer without destroying the very beauty that they provide.

Transportation

Route 6 traffic volume and speed is a major concern of Eastham. The town has worked with Massachusetts Department of Transportation to increase enforcement of speed and other traffic laws. The state enforces the 40 mph speed limit on Route 6. Continuing work is focused on helping drivers to their desired destinations in Eastham without unduly complicating travel for those with other destinations. Signalization including informational signage would increase the capacity of this heavily used multi-purpose highway.

Roadway maintenance and repair is a major program requiring substantial and continued expenditures. Pavement management has been identified as the largest unmet capital need of the community. The Cape Cod Commission study, entitled Pilot Network Level Pavement Management Study, Eastham, Massachusetts, conducted in 1991, warned of substantial and regular expenditures for roadway improvements and maintenance. Efforts to improve the conditions of the roads in Eastham have been very successful. The department upgraded pavement surfaces on town owned roads to asphalt which is more easily cared for and cleared.

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Capital Improvements

The town has a five-year Capital Improvements Plan with single-year targets and funding sources identified. Education and septage treatment facilities are addressed by regional agreements. Separate from these regional programs, the major local projects address the departmental needs of all town departments. The absence of several major services (water and sewer) means that a smaller than normal capital investment level has been required. However, groundwater issues have required some special plans for a partial municipal water supply, particularly in the area of the landfill and along Route 6 where nitrate levels continue to increase. Please see the Water Resources section of the Local Comprehensive Plan for a detailed description of existing conditions and potential well sites, as well as analysis and recommendations. Because of the limited amount of vacant developable land and the limitations imposed by the existing zoning, there are few opportunities for large or intensive developments necessitating capital additions; however, the cumulative impacts of smaller developments will likely necessitate improvement in infrastructure and increased services over time. An alternative to the provision of additional infrastructure and facilities would be the implementation of a program to reduce growth potential. This alternative is viable given the Town's stated determination to maintain community character.

Review and Update of Capital Improvements Plan

The Eastham Charter requires a five-year capital plan be presented each year to Town Meeting. This plan sets priorities regarding: repair, remodeling, renovation, or replacement of obsolete or worn out facilities and equipment which contribute to achieving or maintaining standards for levels of service adopted in the Local Comprehensive Plan. New or expanded facilities that reduce or eliminate deficiencies in levels of service for existing demand and, new or expanded facilities that ensure the adopted levels of service for new development and redevelopment during the next five fiscal years are identified through the five year Capital Improvement Plan and regulations set forth by the Planning Board, Board of Health and the Conservation Commission.

While no new facility locations are included in the current plan, expansions of existing facilities are noted, specifically the Library. The town in the Capital Plan process estimates the cost of improvements for which the town has fiscal responsibility and analyzes the fiscal capability of the town to fund the improvements necessary to achieve or maintain the adopted levels of service. In addition the town identifies potential funding sources for all anticipated future capital improvements. In addition to construction costs the Town estimates subsequent annual operating and maintenance costs of a facility, prior to construction.

The Capital Improvements Plan is reviewed and updated annually in conjunction with the town's budget process. While not included as part of the plan text, items recommended for inclusion in the plan are reviewed and evaluated in the context of the following:

A. Population projections,

B. Existing inventory of public facilities,

C. Existing operation cost of public facilities,

D. Update of public facilities requirements analysis (actual levels of service compared to adopted standards),

E. Financial and revenue forecasts,

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F. Sustainable financial capacity.

The Capital Improvements Plan for the Town of Eastham is included in the Local Comprehensive Plan by reference herein.

Recommended Town Actions:

A. Participate with the Cape Cod Commission in developing a 20-year Regional Infrastructure and Facilities Plan.

B. Continue the five-year capital improvement plan, as it is an effective tool to plan for acquisitions and to plan for funding those acquisitions while maintaining the fiscal health of the community, and ensuring that all town departments have adequate equipment and supplies to carry out their duties.

C. Continue its practice of participating with others in investigation and data collection for surface water quality data such as Town Cove.

D. Continue its practice of participating with others in investigation and data collection for sub surface water such as the USGS study.

E. Continue to support local well water monitoring and data gathering programs such as the nitrate-testing program.

F. Continue to press electric utility companies to underground service.

G. Consider development of certain town owned parcels as industrial land to foster local industrial development.

H. Continue to work with the state to ensure improvements to Route 6.

See also "Capital Facilities & Infrastructure" in Implementation section.

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XV. COMMUNITY FACILITIES - ENERGY

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established an overall planning goal and minimum performance standard for Energy. Eastham's goal and minimum performance standard are consistent with the Regional Policy Plan.

Goal: To encourage energy conservation and improved energy efficiency, stimulate investment in energy conservation, renewable energy resources, and distributed generation, and manage land uses to maximize energy efficiency.

Minimum Performance Standards

New development shall be required to lay new utility lines underground for aesthetic reasons, safety, maintenance of a high degree of power reliability, and facilitation of the development of walkways and bikeways.

Energy-saving transportation activities including carpooling, mass transit programs, bicycling, and walking shall be encouraged as an alternative to automobile trips. Where feasible, historic footpaths shall be maintained and safe bicycle and walking links shall be created to establish an interconnected regional transportation system. Where feasible, bikeways and footpath connections between commercial and residential neighborhoods and between compatible uses shall be provided to create a safe alternative to travel on major roads.

Other Development Review Policies

Development and redevelopment should be designed to promote the efficient use of energy, including orienting structures to take advantage of solar gain and to maintain solar access for adjacent sites. Site design should protect and optimize the potential for the use of solar energy.

Development and redevelopment should incorporate energy-efficiency measures that exceed state standards. Energy-efficient construction techniques and materials to be encouraged would include but not be limited to:

- Above-minimum R-values for insulation of walls, attics, and foundations;
- Use of thermal-pane windows with low-emissivity coating with high R-values;
- Annual fuel-usage efficiency ratings of at least 90% for all new heating systems; and
- Use of segregated or on-demand water heaters.

Analysis

At the Eastham Special Town Meeting on November 16, 1998 the town voted to approve membership in the Cape light Compact (CLC) and its Energy Efficiency Plan. The CLC, a consumer advocate for Cape Cod and Martha's Vineyard moved to find less expensive electric rates. CLC entered into a contract with Select Energy, Inc of Burlington, Connecticut. This contract would have saved Cape and Island consumer's substantial sums off their electric bills. However, as the contract was about to be finalized the price of natural gas and oil suddenly reached all time highs and the contract had to be put on hold. Middle Eastern unrest and other

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factors were at the root cause of these energy cost increases. The Select Energy contract can go forward if there is a decline in oil and gas prices and tension stabilizes in the Middle East.

In the early spring of 2002 the Cape Light Compact (CLC) entered into a contract with Mirant Technologies to replace NStar and to supply electricity to the Cape's so called "Default Customers" who paid the highest rates. Usually the Default Customers are those on the lower end of the income scale. The kilowatt rate reduction was 27%. 900 families in Eastham are benefiting from this reduction together with 40,000 users on the Cape and Martha's Vineyard.

The Town of Eastham has taken several steps to conserve energy and to use it efficiently. Many improvements to the Town Hall have made it a more efficient structure. The new windows and airlock entry are probably most noticed and most evident. Solar panels have been installed at the Elementary School and the Department of Public Works barn and will fulfill an educational component in energy efficiency. In 2012 a solar array will be installed on the Town's Landfill. Wind Energy Facility bylaws were approved at Annual Town Meeting 2009.

The Town benefited from Clean Energy Choice, a program through the Massachusetts Renewable Energy Trust, from 10/01/04 thru 6/30/09, when residents signed up to support clean energy through their electric utility bill, Eastham earned matching grants that were used towards the purchase of solar powered trash compactors. Instead of requiring a grid connection, these compactors, use solar power for 100% of its energy needs. The unit takes up as much space as the "footprint" of an ordinary receptacle—but its capacity is five times greater. Increased capacity reduces collection trips and can cut fuel use and greenhouse gas emissions by 80%. They also provide cost efficiencies from labor savings, fuel cost and maintenance savings, as well as environmental benefits from reduced emissions of greenhouse gases and other pollutants.

The Green Communities Act, a state program promulgated in 2008 enables cities and towns to maximize opportunities to save energy in schools, city halls, firehouses, and other public buildings; to generate some of their energy needs from wind, solar, and forest trimmings; and to make other decisions that reduce their environmental impact and carbon footprint. Qualifying as a Green Community allows a community to apply for grants to finance all or a portion of the cost of studying, designing, constructing and implementing energy efficiency activities, including but not limited to energy efficiency measures and projects; procurement of energy management services; installation of energy management systems; adoption of demand side reduction initiatives, and the adoption of energy efficiency policies. These funds can also be used to finance siting and construction of renewable and alternative energy projects on municipally owned land. Preliminary steps have been taken toward the development of alternative sources of energy. Town bylaws allow private and public use of turbines, the installation of solar panels and the Cape and Vineyard's Electrical Cooperative supplies some power to Cape communities.

The town of Eastham has installed solar cells on both the Elementary School and the Department of Public Works building. It has recently contracted to have a large solar array constructed on top of the capped landfill and will continue to explore new opportunities for producing alternative energy.

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Implementation

Recommended Town Actions

A. Work with the Cape Light Compact through its Compact representative on developing and promoting the Community Choice Power Supply Program, Energy Efficiency Program, and Distributed Generation Program.

B. Enforce energy conservation standards for development and redevelopment.

C. Consider providing incentives, to be developed by the Energy Committee, for the use of energy-conserving building improvements and renewable energy devices in all existing and new buildings, if cost effectiveness over the improvements' expected lifetimes can be demonstrated.

D. Make municipal buildings, facilities, and street lighting more energy efficient.

E. Utilizing clean alternative fuels, such as propane gas Consolidated Natural Gas (CNG), super-oxygenated fuel additives such as ethanol and bio-diesel, and electricity, for all new fleet vehicles and shuttle buses.

F. Work with the Commission, Cape Light Compact, and other organizations to educate citizens about renewable energy and distributed generation through public demonstration projects.

G. Establish a priority list of overhead utility lines and associated structures that should be installed underground for reasons of safety, enhancement of community character, heritage preservation, and restoration of scenic views.

H. Record and document energy savings and set aside 50% of those amounts for future development of new renewable sources.

I. Work with the Cape Cod Home Builders Association to develop a plan to implement energy efficient building methods, procedures and products to be utilized in the construction of dwellings and substantial additions to existing dwellings.

J. Establish an Alternative Energy Committee to discover and recommend alternative sources of energy for the town, its residents and businesses.

K. Consider incentives, including price structuring, to moderate consumption of electricity.

*See “Energy” and “Air Quality” in Implementation section

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XVI. COMMUNITY FACILITIES - HUMAN SERVICES

Town of Eastham Goals and Performance Standards

This section has been prepared by the Eastham Human Services Advisory Committee for incorporation into the Local Comprehensive Plan.

Goal: It is the goal of the Human Services Advisory Committee to enhance the lives of all Eastham residents. The Town must continue to be a desirable place to live, to raise a family, and spend the later retirement years. The Protection of the environment and economic improvement of the Town and its inhabitants, especially meeting the needs of our citizens in financial and other difficulties, is essential. To that end support must be given to social agencies, volunteer services and strong Town programs.

Existing Conditions

According to the most recent census there are 5,453 residents in 2,396 households. Six hundred and ten of these households were composed of persons living alone, and 568 households included children under 18. One hundred and twenty nine of the households with children were headed by single mothers. Another 44 households contained children living with other relatives than their own parents. The median age of Eastham residents is 47.6 years. There are 5,535 housing units in Eastham, according to the 2000 census, of which 2,893 are listed as seasonal, recreational or for occasional use.

Eastham has experienced many changes in the past several decades and the welfare, health and quality of life for our residents have been heavily impacted. These changes are actually the continuation of trends apparent in past years. By 1999 the conditions fostered by these patterns had reached the point where they could no longer be ignored. The town has been concerned with increases in population, loss of rural character, damaging traffic, protection of open space and our natural resources, the loss of young families, and insufficient affordable housing for young workers. The human service needs add another dimension to the situation. While we speak here of the service needs, other sections of the Comprehensive Plan must deal with amelioration of the factors which contribute to problems facing our residents. The economic opportunities within reach of Eastham residents provide a considerable basis of support for maintaining the character of the town including the wellbeing of its population.

The Eastham community has seen a large increase in the number of older retirees as permanent residents and of second homes owned by non residents, with a corresponding decrease in the number of households with children. The financial “good times” of the 1990’s largely benefited those in the upper income levels, while creating additional pressures on residents with moderate and lower incomes. Their income has not kept up with the sharply rising cost of living. The erratic nature of employment in this area, especially related to the large seasonal cycle, whether in the services, retail, tourism, or fishing industry segments of employment creates an additional impact. Combining 2 or 3 part time jobs has often been the rule for survival for many families on the outer cape. The decline of the fishing industry also took its toll; while carpentry and landscape work provided alternative opportunities.

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The community has been seriously affected by the lack of affordable housing. Affluent times meant that many people were able to afford second homes, and enabled retirees, often those who had treasured annual vacations here, to choose the Cape and its lifestyle. As a result, build-out becomes a real possibility. Land and house prices escalated, putting home ownership out of reach for many. Rental housing also was lost as landlords were able to sell at top dollar to second home buyers.

At the same time, the cost of living continues to rise faster than average incomes. A statewide survey of what it costs to live, county by county, in 1997, found that it required an annual income of $35,890 to support a single parent with 2 children living on the outer cape. Basic expenses included are the cost of housing, child care, food, health care and transportation. For a 2 parent family with 2 children, the income needed was close to $45,000. This requires a job earning around $17.00 an hour for the 3 person family, and $10 each for the 2 parent four person family. In 2007, the cost of living is even higher.

Taxes and utility costs continue to creep up. This affects our older residents, especially retirees on fixed incomes, as well as families with children. The income of two parents is often required to make ends meet. The pressures on the single parent dependent on one income are very heavy. A major expense is the cost of maintaining a car which is often essential to employment and reaching other important services. The Flex Bus reduces but does not eliminate the need for automobile travel on the lower cape.

Health costs also have risen. The increased cost of prescription medicines and the escalating rates of health insurance have affected many families. Employers have had to drop such plans or raise the employees' contribution enormously. Dental care is beyond the reach of many, and, because all but one cape dentist refused to accept Medicaid benefits, was totally unavailable for children and others on Mass Health until the creation of the Ellen Jones Dental Clinic in Harwich in 2000. That clinic has had to close its waiting list and is vulnerable to the budget cuts given the economic downturn and the state's grant policy.

The requests for help in finding housing continue. Requests come from young families and also older residents who have lost their housing often because it was sold to new owners. According to the 2000 census reports, about 50 rental units were lost to home ownership. A number of families seek help with mortgage payments in order to keep their homes. When prices rise, generally illness strikes or the car dies, what was once an affordable mortgage payment becomes problematic. Requests for emergency help with food and utility bills continue. The Eastham food pantry enables families to stretch the food budget and use available funds for other essentials.

Counseling and mental health services are available to help individuals and families with the stress and strains of daily life, including difficult relationships, children's adjustment problems, coping with illness, and the more serious episodes of mental illness and depression. Domestic violence is no stranger to Eastham, nor is drug and alcohol abuse. The Police Department reports annually about 50 service incidents related to domestic problems. The economic pressures and threat to housing add to the stresses for which our residents seek help. These problems are hidden from public view, and it is hoped that a new edition of the County of Barnstable study of The Human Condition will provide us with greater understanding of the extent of these problems.

Children

Slightly more than seventeen percent (17.3%) of the population is under 18 years of age, as compared to 20% in 1990. This is reflected in lower school enrollment, particularly in the early grades but can be seen moving up into middle and high school levels. In January 2002 there were 265 children registered in the Eastham Elementary School. The enrollment in the fall of 2007 was about 240. The birthrate in Eastham continues

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below that of the late 80's and 90's, and the young adult population is decreasing as well. Young families and individuals move out for more affordable housing; employment opportunities and higher education. Many high school graduates move on to college and professional schools located on the Cape and elsewhere. The subsequent search for employment includes consideration of availability of housing, convenience of location, adequacy of public facilities, and in general the cost of living in the likely area. Returning to the Cape is one of several possibilities.

Financial problems fall heavily on the child-raising generation. Twenty-four percent of the children attending Eastham elementary school qualify for free or reduced cost breakfast and lunch. Furthermore, one quarter of the households with children below the age of 18 are single parent households. Family support services are especially needed by many of these families. As noted, increases in the number of working mothers and the needs of single parent families means that child care has become a service of critical importance to the community. Day care, after school care and summer programs are high priorities.

Children's Place opened in 1996, to provide day care for children from 16 months through 4 years with a sliding scale fee. Some state funded vouchers were also available. Many applicants could not be served due to the lack of space. Two of the 4 licensed family day care providers in Eastham were closed in 2001. Family care was the major need for the youngest children and one of the closed programs was the only one which provided care from birth to 5. Another of the closed programs was the only one which provided care from birth to 3 years. Care is least available and most expensive for that age group.

An after school program is operated at the elementary school by the Eastham Committee on Early Childhood. Trips to the Audubon museum and park are included in this program. Because the program depends upon user fees from a shifting parental group, financial support is not as stable as is desirable.

While there is a town-operated recreation program at the high school for mornings only, there is no organized summer program for school age children available for working parents. Several programs are available for Eastham families. The Children's Place has received state and federal grants for valued parent support programming, including education for childbirth, home visits and a variety of discussion and support groups. The organization also administers federal and state grant programs which provide child care for eligible families, but more financial aid is needed.

An additional but limited resource for preschool care has been the development of the federally mandated program for integrated Preschool Programs for children with disabilities. These programs are also required to include children without disabilities so that a portion of the placements are also available for non-disabled children on a sliding scale fee basis. Children with disabilities are also eligible for necessary services from birth under the Early Intervention program. This is a very important program, especially since technology now enables the survival of more infants born with very serious disabilities.

It is clear that there are families struggling with significant problems and in need of special support. Each year some Eastham children are brought to the attention of the Department of Social Services upon suspicion of neglect or abuse. Thirty-eight children in Eastham were brought to the attention of in 1996 and thirty-one cases were reported in 2006. The allegations were verified in 24 cases in 1996 and in 18 cases in 2006. Often the investigations disclose substantial need for help, even when serious neglect or abuse cannot be proved. The needs of teenage age youths require special attention. There are many concerns, including alienation from the community, the rise in violence in response to disputes, and the use of alcohol and drugs. In another generation, fist fights settled the score, but in today's climate weapons are more commonplace and a police officer is assigned to daily duty in the regional high school in Eastham. Along with carrying out law enforcement

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duties, the activities of this officer go beyond deterrence, but also provide a positive influence. Factors leading to antisocial youth behavior are varied, and include the effects of the media, the economic problems besetting families, family issues of alcohol and abuse.

Many constructive actions have taken place in recent years. The Field of Dreams has become a reality as a result of volunteer actions, and there is pride in the resulting growth of sports activities for children and youth. The town has a Director of Recreation to oversee meeting the needs of the total population. Our schools also provide a range of sports and other activities for youth. A half-day program is run, during the summer at the High School, and a day long program takes youths to the nature.

Eastham is a small town of caring people and this is an important advantage in our efforts to be helpful. Eastham must continue to use its resources to develop teen age programs within our town that use the energy and talents of this group in constructive activity. Mentoring is one example of a program which promotes one to one adult/youth relationships that can be effective in integrating youth into the life of the community. It is recommended that a Children and Youth Council with representation from both public and private groups serving children and youth be included as well as other interested individuals. Many organizations now offer activities for children and teens and their parents and such a Council could also play an important role in coordinating existing efforts, defining needs and gaps in service and developing greater awareness of opportunities.

The Elder Population

The number of residents over 65 continues to grow. While the decade between 1990 and 2000 saw a 34% increase, the trend continues, but less dramatically. The major increase has been in the proportion of residents 75 and older. There was a 47% increase between 1990 and 2000. There were 629 residents in that group in 2000, compared to 354 in 1990. The median age is now 47.6, as compared to 41.7 in 1990. We note also that 12.4 % of Eastham households are composed of residents 65 and over who are living alone.

The presence of a large retirement age group in Eastham is of great benefit to the town. These older residents bring varied life experiences, skills, some retirement incomes, and the desire to share their expertise with the town. This extensive volunteer “workforce” is indispensable and in fact makes us strong. At the same time planning must anticipate effects of age and frailty as the population ages.

The Council on Aging provides a wealth of activities to meet varied interests and to stimulate the older residents as well as offering a social connecting point. There are programs to meet many interests, and as interests grow, so does the program! Elder Services of Cape Cod, the channel for federal programming for older Americans, offers major supports, particularly the nutrition program through the auspices of the COA. Other not-for profit groups such as Legal Services and Sight Loss meet monthly at the Council Center. In addition Consumer Assistance provides printed information on wise buying, avoiding fraud and scams, and has an information line available on a daily basis. Of particular interest is the Social Day Program for those who need this opportunity and for those whose activity is limited by physical or other problems.

The Council on Aging also assists with one of the major needs of our residents, whether elderly or not, and helps connect those requiring home care temporarily or for longer periods with home helpers. Restrictive regulations imposed by Medicare services have severely limited the availability of such care and the cost of help provided through private agencies is expensive for many. This need for personal care assistance, chore service, house maintenance and even nursing care will increase as the over 75 population grows larger.

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Social isolation is becoming a greater issue for the elderly. As noted earlier, more than 300 residents age 65 and over live alone. Isolation occurs even when people live in households with others. Both physical care and mental acuity suffer, and depression can overtake such persons. Obviously safety is a big concern. However, the lack of transportation makes it impossible for the isolated to attend the stimulating programs that are offered at the Senior Center. Many elderly continue to drive even though their ability to do so safely has decreased. This is an area for town attention. Recommendations have been made for the development of a volunteer escort service, similar to the Meals on Wheels program.

Health care is also a paramount issue for the elderly, made more complicated by the need for transportation and its increasing cost. An increase in problems is most likely as retirement programs increase co-payments and drop medical benefits from their plans. HMOS continue to either increase monthly premiums, or leave the cape altogether. The exorbitant cost of prescription drugs places many in a crisis situation and particularly affects the elderly.

Many financial issues impact the elderly in their retirement years. Rising costs including food, medicine, taxes, transportation play havoc with financial plans that were solid when first made. Tax abatement provisions are very helpful, but don't meet all problems. Some of our older retirees rely entirely on limited social security benefits. There comes a time when cutting back is impossible, and there is no way to meet emergencies. It is time for the town to work with the Council on Aging and its outreach program to determine, the extent of the problems in this area.

As the over 75 populations grows, they will need greater attention and resources. Related to this issue is the perceived need for housing which would enable the elderly to remain in Eastham, retain interests and friends, yet reduce expenses, and provide some protections, or assistance as needed. The feasibility of such facilities should be seriously studied.

Health Care

Lack of medical insurance, underinsurance, and/or inability to keep up insurance payments leads to the patient's reluctance to seek timely service. Indeed most insurance does not cover preventive services, comes into force only when there is a clear diagnosis, pay only a portion of the charges and see premium increases from the employers providing health benefits. For families and individuals it can amount to hundreds of dollars monthly. The town cannot fix this, but could take stock of what the residents need and consider the feasibility of taking preventive measures.

The Eastham Rescue Squad provides efficient, competent and sympathetic service to residents in emergencies. They also respond to requests for blood pressure monitoring and first aid. The question arises to what extent emergency visits to Hyannis could be avoided if affordable routine health care was available.

The adequacy of health care has been touched on throughout this report. Important steps have been taken on a state wide basis to help assure that there is access to health care for all citizens. Mass Health is now available to almost all children of low and moderate income levels, through a sliding scale premium provision. There is also an important state Elder Pharmacy Program for those eligible. In addition a special grant has enabled the development of the Healthy Connections Program which helps connect residents to insurances as well as other forms of assistance. The major accomplishment of the decade has been in the opening of the dental clinic in Harwich. Currently some medical professionals also refuse to accept Mass Health patients. The CHNAP study undertaken 5 years ago clearly disclosed the problems facing the poor and uninsured. Implementation is slow, but does move ahead.

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There has always been a need for more physicians on the lower cape even though there has been an increase in local resources in recent years. Cape Cod Healthcare has purchased the former Medicenter Five building in Harwich and it now houses medical offices, including some specialties and lab services, thus eliminating the long trip to Hyannis. However these services are available to the insured and private paying population only. The Outer Cape Health Services has an office in Orleans in addition to the office in Wellfleet which serves many Eastham residents. Outer Cape Health Service turns no one away and provides medical attention regardless of ability to pay. This can be a major affordable resource for all Eastham residents as well as the uninsured and Mass Health patient.

Transportation

This continues to be a major problem for all residents, because we live in a semi-rural area where public transportation is limited to bus routes on Route 6 from Provincetown to Hyannis several times a day. The B-bus is very helpful, but there are problems with scheduling and frequency of service. Fortunately some improvements have made it possible to get shuttle service from the Plymouth Brockton bus to the hospital in Hyannis, and there in a limited service to hospital appointments in Boston. There is hope for the future in the Transportation Task Force plans which began in the fall of 2000. In the meantime, local efforts to meet local needs must be expanded.

Availability of Human Services

Agencies funded fully or partially through the Town of Eastham as of 2001:

- Eastham Rescue Squad - funded through the Eastham Fire Department, the Rescue Squad provides prompt, competent and sympathetic services in case of medical emergency, including transportation to Cape Cod Hospital.

- Eastham Council on Aging - funded through the Town budget, The Eastham Council maintains a variety of social programming and services and provides transportation vans. A specialized Day Program is also available for elderly in need.

- The Recreation Commission - the Commission oversees a Day Camp during the summer months and a year-round athletic program for children and youth.

- Eastham Elementary School and Nauset Regional School District Eastham Health Agent and Board of Health Eastham Library Visiting Nurses Association

- Agencies providing services through Town contracts for partial funding as of 2001

- Bayview Associates (formerly Lower Cape Human Services) - provides clinical treatment to children and adults with mental health and personal adjustment problems.

- Cape Cod Council on Alcoholism and Drug Dependence - provides counseling and a drop-in center, with an emphasis on services for needy clients.

- Cape Cod Children's Place -provides day care for children from ages 2 to 5, and offers other family support services and referrals.

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- Cape Cod Human Services - Provides counseling and other mental health services for children and adults.

- Consumers Assistance Council - provides information and assistance in dealing with fraud and other consumer problems, as an outreach program of the State Attorney General's office.

- Eastham Committee for Early Childhood - provides after-school programs for Eastham children. Independence House - provides crisis intervention, emergency shelter, counseling and advocacy for battered women and their children, and for victims of sexual abuse.

- Interfaith Council for the Homeless of Lower Cape Cod - provides advocacy and counseling to homeless individuals and families and those threatened with losing their homes.

- Legal Services of Cape Cod and the Islands - provides free legal advice and representation on significant civil law (non-criminal) issues to low income individuals of all ages, and to the elderly without income limitations.

- Lower Cape Outreach Council - provides emergency aid of food, clothing and help with rent payments, etc. to individuals and families in financial crisis.

- Mass Appeal - provides a free clothing shop and referral services, and sponsors Project Serve, a food program at nominal cost.

- Nauset Inc. - operates a sheltered workshop providing job training and placement for developmentally disabled individuals aged 22 years and older.

- Provincetown AIDS Support Group - provides support services, including counseling, meals, housing advocacy, etc. for AIDS patients and their families.

- Sight Loss Services - assists individuals of all ages coping with gradual losses of sight. Provides information support, adaptive aids and instruction to enable clients to remain independent and in their own homes.

Other human services (without Town funding) are available to Eastham residents. For a comprehensive list of organizations available to Lower Cape residents see *Directory of Preventive Services*, issued by the Lower/Outer Cape Health and Human Services Coalition.

Implementation

Recommended Town Actions

The Eastham Human Services Committee recommends the following:

A. Agencies providing Human Services should report to the town annually concerning changing needs.

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B. The Human Services Advisory Committee should continue to interview agency representatives on needs of town residents served, and survey town officials, school program administrators and other organizations' leaders for information on human service needs.

C. The Town should form a Children's/Youth Council to address needs for service and to help to coordinate existing and future programs.

D. Provision of additional day care and summer programming for children and youth.

E. Development of a consistent and adequately funded base to assure stability for after school programs.

F. Focus on outreach to the elderly isolated residents and mechanisms to bring them into community activities.

G. Support for both sufficient preventive and acute care medical services for Eastham residents with special attention to the needs of the uninsured population.

H. Support for organizations providing emergency assistance and active advocacy for families and individuals who are now homeless or are at risk of losing their homes or are now homeless.

The Advisory Committee recognizes the larger issues which impact our residents' welfare and quality of life, principally adequate affordable housing and transportation. These are addressed elsewhere in the Comprehensive Plan, and we add our voice to the plea for action to meet the urgency of these problems.

See "Human Services" in the Implementation Schedule.

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XVII. COMMUNITY FACILITIES - EASTHAM LIBRARY

Town of Eastham Goals

The purpose of the planning process is to help a library identify and analyze community and library needs, determine library service responses[22], and develop goals and objectives which address both short term and long-range needs. A Public Library Transformation Process by Ethel Himmel and William James Wilson (1998). The preparation of the most recent report was also supported by Cheryl Bryan of the Southeastern Massachusetts Library System (SEMLS) using Sandra Nelson's The New Planning for Results.

The Eastham Public Library has undertaken the planning process for the following reasons:

- To determine the best allocation of financial resources;
- To uncover community needs not currently being met;
- To establish goals and objectives for the next 3-5 years;
- To identify the library's current users;
- To develop methods to inform potential users of the resources available to them.

The planning process was initiated on December 18, 2000 by the Board of Library Trustees and the Library Director. On January 31, 2001 a group of citizens representing a broad cross-section of the community were invited to participate in the first stage of the planning process. At that meeting participants were asked to choose the "service responses" that they felt the library should work toward during the next six years. Three sub-groups created from this community-planning group met during the spring of 2001 to create an updated mission statement for the library and develop goals and objectives for the long-range plan. After the mission statement, goals and objectives were developed, the library staff met to determine an action plan for 2002-2004.

The plan produced by this process was a revision of the earlier plan covering the period from 1997 to 2000 and served as a blueprint to guide library service development for the next 3-5 years. It was to be reviewed and revised each year to keep pace with the need for new objectives as old ones were met, new needs developed and conditions changed. The following goals were included in this plan.

Goal: The community will have an improved and expanded library, which will include a large multi-purpose gathering space.

Goal: Through the library, individuals and organizations will have the ability to give and receive information about community services, organizations, events, activities and needs.

Goal: Residents across all age groups will have a pleasant and inviting environment in which to meet and establish lifelong habits of library use.

[22] A Service Response is what a library does for, or offers to, the public in an effort to meet a set of well-defined community needs. Planning for Results: The Guidebook, Himmel and Wilson, ALA, 1998, p.54

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Presently the list of goals for the library does overlap the earlier lists and also expands them to include and emphasize enlargement of the collection, increased activities and more publicity for all of the libraries activities.

Goal: Provide a welcoming place for community members and visitors with ample flexible spaces where they can engage in formal and informal exchange of ideas and information on community issues and entertainment. The library will provide interested community members of all ages with opportunities to realize their learning needs and desires over a lifetime of patronage.

Objective: By 2011, 80% of organizations using the library meeting room will say whether the meeting room currently meets their needs.

Activities:

- Redesign data collection on meeting room requests.
- Conduct survey of people who use meeting room about whether their needs are being met.

Objective: Increase door count of library users by 10% during the months of January, February and March by FY2010.

Activities:

- Offer music and food on select Saturdays.
- Take advantage of "bad weather" opportunities to offer programs that will foster community spirit and bring people together.
- Throw a winter beach party.
- Arrange transportation for older residents through the Council on Aging.
- Look into car pooling for people wishing to attend programs.

Goal: Continue to explore and offer all kinds of materials and programs to fulfill the community's interest in contemporary literature and entertainment.

Objective: Provide interested community members of all ages opportunities to realize learning needs and desires.

Activities:

- Offer "how to" classes on purchasing and making best use of your digital equipment such as portable devices and cameras.
- Staff and community training on databases.
- Develop pathfinders on popular topics.
- Provide online information searching classes.
- Offer early literacy workshops for parents.
- Cooperate with the Academy for Lifelong Learning to hold classes at the library.
- Offer craft clubs or classes.
- Develop an Eastham history page on the library website.

Objective: Increased cooperation with community learning organizations.

Activities:

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- Youth Services Librarian will work with schools and preschools to encourage children to use the library.
- Expand range of ages using the library year round.
- Expand programming to teens.
- Increase science and social science programming for youth.

Objective: The library will produce six lifelong learning booklets each year through 2012.

Activities:
- Select topics, research and create accompanying displays.

Goal: The library will ensure that during a time of great change library users of all ages will have timely and sufficient access to a wide range and selection of materials providing reading, entertainment and covering current topics.

Objective: To achieve a 25% increase in circulation of new books and videos by FY 2011.

Activities:
- Post an annotated list of new books on the library website.
- Put up displays at community events.
- Do some "staff picks" of new books.
- Promote documentary films that don't circulate as much as feature films.
- Organize a library based film series with discussion.

Objective: To achieve one new series of programs offered on current topics at the library each year until FY 2011.

Activities:
- Follow up on topics presented in the local media.
- Use community television to promote topics.
- Connect with Cape & Islands NPR for promotion and topics.
- Team up with other CLAMS libraries in organizing programs to promote discussion of current topics.
- Post booklists in local newspaper and on website.
- Place lists in relevant commercial agencies.
- Create lists of books, videos and music that make appropriate gifts.
- Promote novelist database.
- Create lists in a pleasing format for holidays and special events.

Goal: Through library cooperation with local and other educational institutions, the community will have an appropriate learning environment that will meet the ever-increasing educational needs of its diverse population.

Goal: Library users will have access to up-to-date technology, materials, equipment, and resources needed for research and study so that they can readily and efficiently access and retrieve print and electronic information.

Goal: Through the library, the community will be able to utilize emerging technologies that provide access to local events, library programs, and current topics.

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In 2005, a building committee was appointed by the Planning Committee to assist with the implementation of the Long Range Plan (2007-2012). Joy Brookshire, Adam Harris, Ed Harnett and Kathleen Kane joined the Planning/Building Committee at this time.

The Library Building Committee is continuing its work on designs and plans for the construction of an enlarged facility on Samoset Road. An architect has been developing the plan which has been presented to the Board of Selectmen as part of the Town's general infrastructure improvement program. Additional land for an enlarged library facility has also been acquired.

Existing Conditions

The Eastham Library was founded in 1878, was settled at its present site in 1897 and has grown with the town thereafter. By 1961, improvements and a substantial addition had doubled the size of the building thus making space for more services and conveniences.

By 1985, the year-round population of Eastham had more than tripled since the 1961 expansion and library circulation had quadrupled. It was again time to expand. In May 1987, Town Meeting approved an appropriation of $695,000 to fund an expansion and renovation of the library.

The library is governed by an elected three-member Board of Library Trustees. The Board's authority is derived from Chapter 78, Sections 10 and 11 of the Massachusetts General Laws. Section 11 states in part that *"The board shall have the custody and management of the library…and of all property owned by the town relating thereto. All money raised or appropriated by the town for its support and maintenance shall be expended by the board, and all money or property which the town may receive by gift or bequest…shall be administered by the board…"* The responsibilities of the Board of Library Trustees are also outlined in sections 3-8-9 and 3-8-10 of the Eastham Home Rule Charter adopted May 21, 1991. Responsibility for library management, collection development, and provision of library services to the public is delegated by the Board to the Director. The Director is appointed by and directly responsible to the Board and is an employee of the Town of Eastham.

The staff of the Eastham Public Library presently consists of three full-time staff members (the Director, Adult Services Librarian, and Youth Services Librarian) and two part-time staff members. The Adult Services Librarian is responsible for inter-library loan, reference, and automated services and acts in the absence of the Director. The Youth Services Librarian is responsible for all services to children and youth through high school. One part-time staff member is responsible for technical services; the other works at the circulation desk. The Director handles administrative matters, collection development, public relations, adult popular materials, and all other activities not previously mentioned.

The library is fortunate to have a corps of over 30 volunteers who assist at the circulation desk, shelve books, prepare new materials for circulation, file, prepare overdue notices and perform other related activities. It would be extremely difficult for the library to exist without their assistance. It is obvious, however, that volunteers cannot provide the same kind of consistency or range of service that additional trained staff could offer. This places a heavy burden on the existing staff. With static or diminished funding, the goal of providing a high level of service to an ever-increasing highly educated population is a constant challenge.

The 600+ member Friends of the Eastham Library also perform invaluable services which otherwise would not be available. They purchase subscriptions to periodicals, sponsor children's programs, lease the library's copier and create lovely gardens around the library.

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The library is open 38 hours per week both winter and summer with a slight change in schedule from summer to winter. The library schedule is:

	Summer	Winter
Monday	10-4	Closed
Tuesday	10-8	10-8
Wednesday	Closed	10-4
Thursday	10-8	10-8
Friday	10-4	10-4
Saturday	10-4	10-4
Sunday	Closed	Closed

The Friends have sponsored an annual "Love Your Library" day and book sale in conjunction with Valentine's Day. A monthly book discussion group led by the Adult Services Librarian and other special programs such as a writers' group, story hour and other children's programs are held in the conference room. Additional programs which require a larger space have been held at the Eastham United Methodist Church and at the Chapel in the Pines; a neighboring church. The Friends of the Library also sponsor an annual book/bake/plant sale to benefit the library and organize monthly programs on literary and cultural topics.

Mission Statement

The Eastham Public Library, established in 1878, is today a vital resource in a town whose population of approximately 5,900 quadruples during the summer months. The staff, volunteers, and library trustees strive to ensure a professional and friendly atmosphere, and to make the Library a dynamic center of the Town of Eastham offering a common meeting ground for the diverse elements of the community. It provides both print and non-print materials through its collection and the CLAMS network, as well as wider access via current technology to resources and information. Additionally, recognizing the historical treasures of the area, the Library affords access to genealogical and local history materials in conjunction with the Eastham Historical Society.

During the next five years, the Eastham Public Library will continue to provide and expand upon current titles and topics in multiple formats. Students of all ages will experience a positive learning environment with services and materials available to facilitate their locating, evaluating, and use of information in support of both formal and informal education. For residents and visitors, the Library will serve as an information source for community services, agencies, organizations, and events. The Library will pursue plans to provide a large flexible gathering place for meetings, public discussions, and cultural activities. To meet the needs of its patrons, the Library will expand the range of up-to-date available technology and will intensify outreach efforts in order to broaden the base of citizens who utilize its services. The Library will continue to address the critical needs for increased space in all areas of the building in order to fulfill its mission.

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Implementation

Recommended Town Actions

To meet the goals established in this section the Eastham Library should:

A. Continue to assess the adequacy of current space to meet expected needs. Staff should keep a record of requests for meeting space that Library can and cannot fulfill.

B. Develop a flexible meeting space that will accommodate a substantial number people.

C. Develop expanded space to house a variety of materials in different formats.

D. Continue cooperative efforts with the Eastham Historical Society and the Town of Eastham to provide improved access to, accommodation for, and the preservation of local historical and genealogical materials by implementing the following activities:
   - Trustees and staff will continue to meet with the Eastham Historical Society regarding their needs, and involve them in space assessment and the planning process for building expansion.
   - Staff will involve the Eastham Historical Society in collection development in the areas of local history and genealogy.
   - The library director will conduct regular, organized meetings with staff/volunteers and will assist the Eastham Historical Society in finding a larger number of reliable volunteers to staff archives.

E. Should make at contacts with community organizations and services offering the library as a clearinghouse for information.

F. Attain a 90% rate of patrons surveyed being aware that information about the community resources is available at the library and throughout the CLAMS network.

G. Conduct an assessment of current space and determine what changes can be made within existing space to improve the library environment.

H. Provide a variety of spaces to serve the age groups represented within the community, with a particular emphasis on young adults, home-schoolers and the physically/mentally challenged.

I. Develop a list of local and other educational institutions by implementing the following:
   - Staff will compile a list of local and other educational institutions using current knowledge and contacts, and local publications.
   - Staff assisted by volunteers will create a local resources file with contact names, addresses, telephone and fax numbers, and e-mail information, and develop a system to keep the file up-to-date.
   - Staff will continue contact with schools and families to maintain awareness of library potential for computer access and tutoring, homework center, acquisition of new reference materials, etc.

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J. Identify the diverse community groups within the population by implementing the following:
   - Staff will compile a list of diverse community groups by brainstorming and by consulting with members of the Lower Cape CDC and other community agencies including schools, churches, professional groups, and government agencies.
   - Staff will contact organizations that do outreach, such as the Council on Aging and WIC.
   - From information gathered, staff will develop services.

K. Develop, distribute and analyze a survey to identify the needs and priorities of these community groups by implementing the following:
   - Staff, with help of Trustees and volunteers will develop a survey that will include questions on topics such as perceived space needs, library hours, library staffing, and technology.
   - Staff and volunteers will distribute the survey.
   - Survey will be analyzed with help of Friends, volunteers, and staff.

L. Conduct annual evaluation of technological needs and resources by implementing the following activities: Ongoing
   - Staff will continue to review use of equipment and software annually.
   - Staff will continue to analyze technological needs.
   - Staff will read reviews of new technology in magazines that focus on technology and in library literature.
   - Staff will review websites for content and authority and bookmark them if they seem to be potentially useful.
   - Staff will continually update Library website to include links to useful websites.

M. The library should explore and utilize outreach opportunities via local media by conducting the following activities:
   - With the help of Trustees, Friends of the Library and volunteers staff will hold discussions with newspapers, local magazines, Channel 8, and local radio stations.
   - Staff will continue to improve Library website, and advertise the website's features on cable station, print media, and radio stations.
   - Library Director will contact The Cape Codder to pursue their invitation to give us a monthly or bi-monthly column. Details of discussion will include how much space they will provide, what restrictions they may impose, etc. Library Director will also contact neighboring libraries (Wellfleet, Orleans) and ask them if they'd be interested in contributing to a newspaper column on a regular basis.
   - Trustees and Friends will inform the public on current sources of funding for the library.

N. Should become a primary venue for events, programs and discussion of current topics.

O. The 2011 Eastham Town Meeting approved an expenditure of $4,500,000 for the remodeling and expansion of the existing town library on Samoset Road. The expansion will not begin until state funds of $4,700,000 that have been authorized are available. This expansion will meet all of the facility goals that are listed above.

See "Eastham Library" in Implementation section

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XVIII. AFFORDABLE HOUSING

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for affordable housing. Eastham's goals and minimum performance standards are consistent with the Regional Policy Plan.

The goal is to promote the provision of fair, decent, safe, affordable housing for rental or purchase that meets the needs of present and future Cape Cod residents. At a minimum, each town should seek to raise its affordable housing stock to 7.5 percent of all year-round units by 2010, and 10 percent of all year-round units by 2015. To promote equal opportunity in housing and give special consideration to meeting the housing needs of the most vulnerable segments of the Cape's population including, but not limited to, homeless individuals and families, very low income (50 percent of median income), low income (51 – 80 percent of median income), single heads of household, racial minorities, and others with special needs. To promote the participation of all segments of the community to address the housing needs of Cape Cod residents, with particular attention to the needs of low and moderate income households.

Eastham's housing goals are further articulated in the February 2010 "Town of Eastham, Massachusetts Housing Production Plan" Prepared for the Board of Selectmen, adopted by the Planning Board and Board of Selectmen, and approved by the Department of Housing and Community Development (DHCD) pursuant to 760 CMR 56.03(4) on August 17, 2010.

Affordability, as referenced in the below sections unless otherwise defined, shall mean housing units either rental or homeownership, affordable to households earning at or below 80% of the area median income as published by the U.S. Department of Housing and Urban Development. Affordable units must meet all requirements for inclusion on the Department of Housing and Community Development (DHCD) Subsidized Housing Inventory (SHI).

Minimum Performance Standards

Affordable housing shall be encouraged in all areas that are appropriate for residential and mixed-use residential and commercial development. Particular attention shall be given to locating affordable housing convenient to transportation corridors.

- Any of site units or lots bearing affordable housing shall be in Eastham.
- The type (ownership/rental), bedroom composition, and unit size of the affordable housing resulting from MPS 5.1.2 and 5.1.3 shall be consistent with the area's priority housing needs as determined by the County's Five Year Consolidated Housing Plan, the LCP and the Housing Production Plan.
- Prior to occupancy of the affordable units, the applicant shall demonstrate that the occupants are income-eligible as determined by the Commission for DRI's and by the Eastham Housing Authority for units created in non-DRI developments. The applicant will be required to use the methodology used for HUD Section 8 applicants in determining income eligibility.
- DRI's, residential and/or commercial construction, redevelopment, or subdivision development projects that result in the reduction of non-condemned residential units shall be prohibited, unless otherwise permitted by the Commission.

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- Residential construction, redevelopment, of subdivision development projects resulting in dislocation of existing residential occupants shall be subject to the provisions of the federal Uniform Relocation Act.

Residential construction and redevelopment projects of ten (10) units or more shall provide at least 10% of the proposed units as affordable units. In lieu of providing such units on site, the applicant may satisfy these requirements by providing equivalent housing units off site through the purchase of existing units, redevelopment, new construction, or a contribution of land.

Residential subdivision plans of 10 lots or more shall provide at least 10% of the proposed lots as affordable housing sites. Unless developed by the applicant, such sites shall be contributed to Eastham Housing Authority or a non-profit Community Development Organization such as the Community Development Partnership (formerly Lower Cape Cod Community Development Corporation). An applicant may also satisfy these requirements through one of the options specified in Section 5.1.2.

In lieu of providing such lots on site, an applicant may develop or contribute equivalent off-site lots(s), providing they are in Eastham, and possess the capability of supporting the designated number of affordable units.

Prior to final review by the Planning Board and the Housing Authority, an applicant must demonstrate that off-site lots are buildable and/or units habitable. In the event that the off-site lots or units prove to be unsuitable for any reason, an acceptable alternate proposal as specified in 5.1.2 and 5.1.3 will be required.

All affordable housing units or lots resulting from compliance with Sections 5.1.2 and 5.1.3 shall be initiated upon the conveyance of any of the subdivision lots or the issuance of a building permit for any of the lots, whichever occurs first. The applicant shall notify the Planning Board and Housing Authority (or other designated department) prior to conveyance of any lots and/or application for a building permit for any of the lots. The development of on-site affordable housing shall be phased in at the same rate as the project's overall development plan.

The Eastham Housing Authority or the Community Development Partnership (formerly Lower Cape Cod CDC) as a designated local agency may receive affordable housing contributions. Upon certification of this Local Comprehensive Plan, the Cape Cod Commission shall follow this guideline.

Affordable housing units created by this section shall remain affordable year-round through the use of resale deed restrictions or rental restrictions that require the units to remain affordable in perpetuity. Such restrictions shall be made known to the homebuyer or renter prior to the purchase/occupancy of the unit. The marketing of any such rental units shall be in a fair and affirmative manner.

Affordable housing units within market rate developments shall be integrated with the rest of the development and shall be compatible in design, appearance, construction and quality of materials with other units. The location of the affordable units and the construction specifications shall be approved by the Planning Board and Housing Authority (or other designated departments or entities) prior to the start of construction.

Affordable housing provided for purchase through the review process shall be made available to potential homebuyers through a lottery process incorporating an affirmative action plan.

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For the purpose of calculating the 10% affordable housing contribution, all numbers shall be rounded to the nearest whole figure.

Other Development Review Policies

Residential construction, redevelopment, or subdivision development projects, which are entirely comprised of housing units that are affordable for households at or below the median income, may qualify for a waiver of the 10% affordable housing requirement.

Affordable housing should be provided as part of residential and mix-use residential and commercial development. Particular attention should be given to locating affordable housing in or near Growth/Activity Centers and Growth Incentive Zones and convenient to transportation corridors.

Preference regarding off-site compliance with the affordable housing requirement should be first for the use of existing structures, second for the construction of new units, and third for land offerings.

The goal is to promote equal opportunity in housing and to give special consideration to meeting the housing needs of the most vulnerable segments of Eastham's population including, but not limited to: very low income (50% of median income), single female heads of household, racial minorities, people with AIDS, elderly, the homeless, disabled, and others with special needs.

Minimum Performance Standards

In all of its actions the Town shall work to prevent discrimination in housing because of race, color, creed, religion, sex, national origin, primary language, age, political affiliation, disability, sexual orientation or any other consideration prohibited by law, and shall not knowingly approve any development that so discriminates.

Residential construction and redevelopment projects shall provide at least 10% or one unit; whichever is greater, of the proposed units as legally handicapped accessible unit(s).

Other Development Review Policies

The use of the "visit-ability" program as a standard for increasing accessibility of residential units should be promoted as a means for ensuring simple access into any home and into the bathroom for occupants and visitors.

The goal is to seek out, provide support and encourage the development of innovative strategies designed to address the housing needs of Eastham, with particular attention to the needs of low- and moderate-income renters.

Minimum Performance Standards

For commercial DRIs, the applicant shall provide an analysis of affordable housing needs generated by the project.

New development with a high need for seasonal workers shall make provisions for employee housing or assist in placing summer employees in housing designed specifically for summer use, such as cottages or accessory apartments.

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Development Review Policies

Reuse of existing structures as a means for creating affordable housing should be supported and encouraged.

The development of assisted-living facilities, single-room occupancy, and other similar affordable housing types should be encouraged.

The use of HOME and Soft Second Loan funds and other affordable housing assistance programs should be encouraged.

The goal is to develop and promote strategies, plans, policies, and actions which integrate the development of affordable housing with protection of Eastham's environment.

Minimum Performance Standards

Use of alternative septic technologies and alternative construction techniques in conjunction with the development of affordable housing should be encouraged and expanded.

Cumulative-loading analysis or other similar strategies which identify areas where there is adequate nitrogen capacity for development of affordable housing should be promoted.

Existing Conditions

In 2010, Eastham had a total of 5,960 housing units, of which only 2,388 (40%) were occupied year-round. There were 244 vacant units (not seasonal/recreational use) and 3,328 seasonal units among Eastham's 5,960 total units.

Eastham's population has lower median household income than most of surrounding Barnstable County; at $55,675 Eastham incomes are the 5th lowest of the 15 Cape towns (Census, American Community Survey, 2005-2009). However, Eastham home prices are not comparably lower. The Eastham median home price, according to www.Trulia.com for July-Sept 2011 is $362,500. An Eastham household would need to earn approximately $115,000 annually to afford a median priced home, more than double the median income.

Inventory is scarce as well. The Department of Housing and Community Development Subsidized Housing Inventory (June 30, 2011) shows Eastham with 1.9% of year-round housing units categorized as affordable (49 units). This is the second lowest percentage of all Cape towns, with nearby Truro being the only other town with a lower percentage (0.9%).

Prior to 1996 there were only 12 qualified units of affordable housing under the terms of 40B. These were eight units of special needs housing located in Eastham but developed and managed by the Orleans Housing Authority before 1996. The residents have all been developmentally challenged. The other four units (The Fay Shook Apartments) were acquired by the town and donated to the Housing Authority and were the first units to be owned by that entity. Since then, the Housing Authority acquired additional eight units through the CDP. The CDP has acquired two, two unit apartments and converted five units of a pre-existing cottage colony and continues to own and operate them as affordable rental units and three units have been built by Habitat for Humanity.

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Chapter 40B of the Massachusetts General Laws was enacted to encourage the development of affordable housing in all communities in the Commonwealth. The act establishes a ten percent (10%) threshold of the year-round housing stock to be affordable for low or moderate-income households. If this threshold is not met, a developer may seek waivers from local laws and regulations to create such housing. Based on Eastham's 2010 Census' 2,632 year-round housing stocks, this threshold would be 263 affordable housing units. Because only 49 units currently qualify as affordable year-round housing stock, an additional 214 units are required to meet the threshold. Census figures determine that the need is primarily for rental units for those with "moderate to low income."

The number of housing units increased greatly during the 1980's; going from 3,625 in 1980, to 4,863 in 1990. This thirty-four (34) percent increase, or 1,238 housing units, was on average one hundred (100) new housing units a year during that decade. Since 1990, new housing has been built in Eastham at a much slower rate than the previous three decades. Between 1990 and 2000, 672 housing units were added to Eastham's stock – a 14% change, and between 2000 and 2010, only 425 – an 8% change. This decrease in construction of housing is in part due to the national recession experienced in 1991-92 and in part because of the limited developable land available in Eastham. There is little evidence to conclude that this new trend will not continue.

Table 32: Total Housing Units in Eastham Since 1990

Through 1989	4,863
1990	70
1991	41
1992	60
1993	65
1994	60
1995	62
1996	75
1997	96
1998	113
1999	140

2000	94
2001	52
2002	47
2003	40
2004	37
2005	52
2006	33
2007	57
2008	11
2009	12
2010	15
Total Units:	**6,095**

Source: 2000 U.S. Census and the Eastham Building Department, 2010

Eastham Housing Authority

The Eastham Housing Authority evolved from a consortium of Eastham, Wellfleet and Truro affordable housing committees. Article 4 of the 1987 Eastham's Town Meeting, approved the authority by-laws and, subsequently, established a Housing Authority. Questionnaires relative to housing need were sent out in the summer of 1990, and the then Community Development Corporation of Lower Cape Cod commissioned a survey in February of 1993. The results, as well as those from an additional questionnaire presented at the May 1993 Town Meeting, confirmed the Town's recognition of a strong need for affordable rental housing for younger families with a preference for the use of existing housing.

The Housing Authority has continued its efforts to provide more affordable housing in Eastham. These efforts by individuals and other institutions, such as Habitat for Humanity and the then Community Development Corporation (CDC) have developed an inventory of forty (49) units of affordable housing which is about 1.4% of the total year round housing stock.

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Additional affordable housing and housing generally compete for the limited amount of space which is still available. Preliminary planning for the use of one eleven (11) acre available site called the Purcel Property includes a provision for affordable housing.

The affordable housing as recognized by the Commonwealth exists within an inventory of housing units with a wide range of prices. The median price of houses sold recently (2011) is slightly over $360,000. The range in sales prices extends from almost $2 million to less than $100,000. Although a number of the more moderately priced structures could be renovated and become available as affordable housing, that process is also challenging and costly.

Eastham is actively represented on the Barnstable County Home Consortium. Several of the Towns' residents were among the founders of the Community Development Partnership (formerly Lower Cape Cod Community Development Corporation). In 1992 the Lower Cape Cod CDC was formed to encourage and develop year-round rental and owner-occupied affordable housing as well as sustainable economic development. The recently formed Housing Land Trust for Cape Cod is Cape Wide and currently has no site prospected in Eastham at this time.

Eastham Affordable Housing Trust

The Eastham Affordable Housing Trust (a municipal entity) was established in May 2008, pursuant to a Town Meeting Vote as provided for by the Municipal Affordable Housing Trust Fund bill, Chapter 491 of the Acts of 2004 (MGL c.44 Sec 55C). The purpose of the Trust, by statute, is to provide for the creation and preservation of affordable housing in municipalities for the benefit of low and moderate income households. MGL c. 44 Sec 55C Trust may have the ability, among other powers, to accept/receive real property, personal property and money; to purchase and retain real or personal property; to sell, lease, exchange, transfer or convey personal, mixed or real property; to execute, acknowledge and deliver deeds, assignments, etc.; to employ advisors and agents; and to manage or improve real property. For Eastham specifically, the Trust looks to take advantage of the flexibility inherent in a Housing Trust by creating and funding housing opportunities that need action more quickly than a yearly Community Preservation grant cycle may allow. Examples of such projects could include taking advantage of traditional real estate market opportunities, purchasing real property in a short sale or foreclosure, as well as exercising a municipality right of first refusal on an already deed-restricted property.

Analysis

The need for affordable housing in Eastham is likely to expand given the median housing values, pay scales for young families, especially single parent families, and an increase in the number of older residents whose fixed incomes do not adjust with the current or projected housing costs. In addition, social agencies operating on the Cape have estimated that the homeless or near homeless population is likely to grow (see Human Services section).

The year-round housing stock is primarily in good condition. Of the seasonal housing, some is investment property or is owned by landlords who intend to eventually retire to Eastham, while others are second homes for family's now living off-Cape.

Disincentives for development of affordable housing in Eastham include restriction in lot size to accommodate both water supply wells and septic systems, commitment of tracts of Town-owned land, and other uses such as conservation property, wetlands, and Town-owned parcels of insufficient size to accommodate affordable

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housing. The Cape Cod Habitat for Humanity affiliate has built houses in Eastham on public and privately donated land, which qualify as affordable housing. State financial assistance is more readily available for larger scale developments, not smaller, scattered site projects. A Town by-law permits accessory apartments for affordable housing, but thus far, one has been created.

Chapter 40B and various other programs, such as the Local Initiative Program have been established to encourage the production of affordable housing. An attempt to increase the stock of affordable housing in all communities in the Commonwealth is an objective of the Department of Housing and Community Development, and the Cape Cod Commission. In addition, meeting the 10% threshold and/or demonstrated efforts to meet this threshold may affect the ability of Eastham to receive certain State grants. Because Eastham has 1.9% of its housing that qualifies as affordable under Chapter 40B, a greater effort and commitment to meet this threshold should be demonstrated.

Appropriate affordable housing strategies for Eastham, which satisfy overall goals, housing goals and related needs, are shown in below.

Implementation

The following recommendations are made in an effort to encourage and increase affordable housing opportunities in Eastham:

A. The Town of Eastham will take steps to implement the 2010 Housing Needs Assessment Pan following the priorities recommended in that Plan.

B. Continue efforts to purchase existing housing units (including foreclosures) and secure affordability with deed restrictions. As with the four units purchased in 1993, rental or assistance with down payments and subsidized mortgage rates, or setting up a revolving fund for outright purchase to resell, would increase affordable housing opportunities.

C. The Town should encourage the construction of affordable housing units by Habitat for Humanity and other non-profit and/or limited dividend corporations.

D. Utilize increased intensity, set-asides and density bonuses (all of, which are appropriate as means to encourage affordable housing) by reducing land and land development costs. Both increasing intensity and set-asides are accomplished by reducing dimensional requirements in the zoning. Set-asides require developers to reserve a certain percent of the units to be sold or rented as affordable. A density bonus can be awarded for the same benefit or for other public benefits such as a contribution to the Housing Authority or Recreation Commission. The Town should utilize these strategies in selected areas to help achieve its goal of ten percent of the year-round housing stock as affordable.

E. Permit accessory apartments where appropriate lot size and environmental conditions allow. This type of housing is located within an owner-occupied primary residence and would provide additional affordable housing stock at comparatively little cost.

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F. Encourage shared or congregate housing to allow for dwellings to be occupied by more than one family. This type of housing is useful in meeting the needs of single parent households, the elderly, and others who choose to live cooperatively.

G. Support the Local Initiative Program (LIP). This State program was established to provide cities and towns with an incentive to develop low- and moderate-income housing. The program allows for Town supported private development, which does not require direct state or federal financial assistance. All low and moderate-income housing units developed through the Local Initiative Program are "counted" toward a community's affordable housing stock under Chapter 40B.

H. Streamline the permit process to allow simultaneous application and processing of permits. The computerization and simplification of forms creates a user-friendly approach to development and may be economical both for the Town and the applicant.

I. Modify town regulations to provide incentives for developers of affordable housing. Any modification of regulations should be subject to conditions established in the regulations and should be reviewed on a project-by-project basis. A by-law should be considered to permit cluster units and allow affordable housing on 1/2 acre lots on the condition that housing so situated remains affordable housing indefinitely.

Recommended Town Actions

A. Promote adoptions of growth management by-laws which include provisions specifically related to affordable housing. Such provisions could include but not be limited to exempting affordable housing from growth caps, setting aside a specific number of building permits for affordable housing, and creating incentives for the development of affordable housing.

B. Promote adoption of zoning changes that allow mixed-use development, use of District of Critical Planning Concerns and changes in tax-assessment policies that foster the development of affordable housing.

C. Support the local affordable housing committee, in the development of a local housing policy reviewing, proposals, recommending actions, and maintaining communications with the Commission.

D. Develop a local housing needs assessment that will be updated every three years.

E. Inventory public and private land suitable for the development of affordable housing and coordinate with local housing and Land Bank committees to develop opportunities for joint housing and conservation projects. Factors that could be considered in the selection of such sites by the town should include proximity to existing water supplies, schools, services, proximity to existing developed areas, and environmental constraints. At a minimum, local housing and environmental advocates should be involved in the site selection process.

F. Consider donating or leasing parcels of town-owned land for affordable housing.

See "Affordable Housing" and “Land Use” in Implementation section.

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XIX. HERITAGE PRESERVATION / COMMUNITY CHARACTER

Town of Eastham Goals and Performance Standards

The Cape Cod Commission, through its Regional Policy Plan for Barnstable County, has established overall planning goals and minimum performance standards for heritage preservation/community character. Eastham's goals and performance standards are consistent with this Plan.

Goals and Policies

Goal: To protect and preserve the important historic and cultural features of Cape Cod's landscape and built environment that are critical components of the region's heritage and economy. To encourage redevelopment of existing structures as an alternative to new construction, and to ensure that all development and redevelopment respects the traditions and distinctive character of historic village centers and outlying rural areas consistent with Designing the Future to Honor the Past, Design Guidelines for Cape Cod, Technical Bulletin 96-001, as amended.

Minimum Performance Standards

- An historic structure's key character-defining features are to be preserved. Alterations to historic structures should be consistent with the building's architectural style and not diminish its historic and architectural significance. Removal or alterations of character-defining historic features should be avoided unless the Historical Commission determines that such removal or alteration will not have a significant negative impact on the integrity of the historic property, surrounding historic district, or otherwise distinctive neighborhood.

- The distinguishing original features of an historic or cultural landscape shall be preserved. New development adjacent to or within historic or cultural landscapes shall be located to retain the distinctive qualities of such landscapes and designed to maintain the general scale and character-defining features of such landscapes.

- Where development is proposed on or adjacent to known archaeology sites or sites with high archaeological sensitivity as identified by the Massachusetts Historical Commission or the Eastham Historical Commission during the review process, it shall be configured to maintain and/or enhance such resources. A pre-development investigation of such sites shall be required early in the site planning process to serve as a guide for layout of the development. Archaeological sites determined eligible for listing in the National Register of Historic Places shall be preserved and protected from disturbance.

- Historic buildings that may be slated for demolition or relocation should be preserved on site and reused or incorporated into the overall design of the project.

- Cultural landscapes and archaeologically sensitive areas should be protected through conservation restrictions or preservation restrictions that ensure their long-term preservation.

- Expansion or creation of strip development shall not be permitted.

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- New development proposed on town roads and Route 6 shall be sized such that it can be accommodated without significant changes to the existing character of the road. Any necessary structural improvements shall be consistent with the existing character of the road, unless the Commission and the Town deem alternatives to be appropriate.

- New development proposed adjacent to scenic roads shall be designed to preserve distinctive features of the scenic road including tree canopy, stone walls, winding roads character, and scenic views.

- New development adjacent to or within historic districts, village centers, cultural landscapes, historic properties or otherwise distinctive neighborhoods shall be designed to be consistent with the character of the area and to retain the distinctive features of the neighborhood. Elements of the distinctive area's character such as building mass and scale and roof shape, roof pitch, and proportions between doors and windows shall be maintained. Distinctive features of the area such as proximity to the street, views to water and/or landscapes, and significant open spaces shall be preserved.

- For all new development in industrial or commercial areas, no individual structure shall exceed a footprint of 15,000 square feet unless it is fully screened or located within a Growth Incentive Zone. For redevelopment projects, expansion of existing buildings with individual footprint up to 50,000 square feet shall be permitted without full screening if the expansion occurs on previously developed impervious or landscaped areas. Full screening may be achieved through the use of traditionally scaled frontage buildings or a vegetated buffer at least 200 feet in depth. The method of screening shall be consistent with the character of the surrounding area and preserve the distinction between village centers and outlying areas. In all cases, where an individual structure exceeds a building footprint of 10,000 square feet, the massing facade, and roof configuration shall be varied in order to reduce the apparent mass of the building and shall include a minimum of 10 feet of set-back or projection in the facade footprint for every 50 feet of facade length.

- In industrial parks or areas not visible from scenic or regional roadways or other distinctive areas noted above, use of nontraditional material and forms may be appropriate. In such areas, maintenance of adequate buffers on subject property is required to ensure that the proposed development will not be visible from scenic or regional roadways such as Route 6A.

- Redevelopment of existing strip development shall provide adequate buffers between parking areas and the street, and significant improvement to interior parking lot landscaping, as well as facade improvement and frontage building, as necessary, to improve the visual character of the site.

- All development shall implement a landscape plan which addresses the functional aspect of landscaping, such as drainage, erosion prevention, wildlife enhancement, screening and buffering, wind barriers, shade provisions, energy conservation, sound absorption, dust abatement and reduction of glare. When vegetative buffers are necessary to prevent impacts from new development on scenic resources, maintenance of existing vegetation shall be required in the buffer area. A maintenance agreement or irrigation, as appropriate, shall be provided.

- Exterior lighting in new development or redevelopment shall comply with design, light sources, total light cutoff and foot-candle levels defined in the Exterior Design Standards, Technical Bulletin 95-001.

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- The installation of billboards, offsite advertising (except approved directional signs) and internally lit or flashing signs shall not be permitted.

- All utilities for development including cable shall be placed underground except where the presence of natural features such as wetlands or archaeological resources prevent such placement.

Other Development Review Policies

- The integrity of natural landforms and broad, open views of the landscape as seen from any local, county or state-designated scenic roads and Route 6 should be maintained.

- The planting of shade trees along roadways to improve the visual quality of the area is encouraged. Such trees should be tolerant of roadside conditions and a minimum of 3inch caliper/DBH at time of planting.

- Distinguishing original features of a site such as trees of greater than 6" DBH, existing planting and topography should not be removed without public review. Plantings on the street-facing side of buildings, window boxes and planters are encouraged. Benches or other seating arrangements and walkways within the development and linking to other buildings should be provided where appropriate.

- Traditional building materials such as wood shingles, clapboards and brick should be used for new construction and rehabilitation of existing structures.

- In general, the size and color of all signs should be in scale and compatible with the surrounding buildings and street. When more than one sign is used, the graphics should be coordinated to present a unified image. Wooden signs, either painted or carved are usually most appropriate.

- All exterior lighting should be part of the architectural and landscape design concept. Fixtures, standards and exposed accessories should be concealed or harmonious with other project design materials. Lights from fixtures should be pointed downward and contained on the property.

- Underground placement of utility lines as part of any roadway improvement project is encouraged.

Existing Conditions

The character of Eastham is made up of significant historic sites, landscapes and buildings. Eastham's Atlantic coastline is preserved by the presence of the Cape Cod National Seashore. The bayside has pleasant summer homes, various Town landings and beaches, and Rock Harbor Marina in the south. The town's settlement pattern has traditionally been dispersed and focused primarily on agricultural and maritime pursuits. More populous areas were historically located to the north and south of Eastham's current borders. With the end of World War II and the rise of tourism in the region, Eastham's population has remained dispersed. Eastham has never developed a Town Center or village-style focal point. Route 6, which bisects the Town east/west, has become the single greatest threat to the semi-rural character of the town as seen by the residents and travelers. Tree lined byways are equally important for the preservation of the towns character.

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Historic Sites and Districts

Several sites and structures in Eastham are listed in the National Register of Historic Places including those within the boundaries of the Cape Cod National Seashore. These are: Nauset Archaeological District, which has been designated a National Landmark by the Secretary of the Interior. This designation automatically confers National Register status on these six sites which include three in the Salt Pond area, two at Fort Hill and one at Coast Guard Beach; Nauset Light; Nauset Light Keeper's House; and oil house; Beacon and Twin Sisters of Nauset Lighthouses; French Cable Hut.

The Old Town Centre Historic District is a local regulatory district approved by Town Meeting in 1986. The District Commission reviews all exterior buildings alterations, demolitions and new construction. The District consists of 57 properties and encompasses the west side of Route 6 in the vicinity of Salt Pond Road, Locust Road to Mill Road, and the east side of Route 6 along Nauset Road to Schoolhouse Road. It includes the 1869 Schoolhouse Museum owned by the Eastham Historical Society.

Since approval of the Town's first Local Comprehensive Plan, several Eastham historic sites and districts have been added to the National Register of Historic Places as a result of grants obtained by the Eastham Historical Commission. The Old Town Centre Historic District is now listed in the National Register as well as its listing in the State Register.

The Eastham Center Historic District consists of 59 properties along the west side of Route 6, Samoset Road to Bridge Road, Depot Road to Samoset Road. Notable inclusions are the Windmill, Windmill-Green, Public Library, Chapel-in-the-Pines (Unitarian-Universalist), 1741 Swift-Daley House, owned by the Eastham Historical Society, and the Eastham Town Hall, the only property on the east side of Route 6.

Collins Cottages Historic District, 13 properties, is sited on town Cove at the entrance to Eastham. Cove Burying Ground, Eastham's first cemetery, is on the East Side of Route 6 near Pine Woods Road. Bridge Road Cemetery, second oldest, is west of Route 6 and south of Samoset Road. Both cemeteries are listed individually in the National Register.

The Fort Hill Rural Historic District consists of 33 properties and encompasses 100 acres of field, forest, and salt marsh within the boundaries of the Cape Cod National Seashore. Located east of Route 6 the district includes the Captain Edward Penniman House and Barn, Sylvanus Knowles House, and Seth Knowles House.

The Massachusetts Historical Commission, in conformance with Federal guidelines, considers any structure at least 50 years old to have potential historic significance. Research conducted by the Eastham Historic Society and the Eastham Historic Commission has identified 221 structures in the Town meeting this definition.

A formal inventory of 100 properties was completed in 1995 and is on file at the Massachusetts Historical Commission. Twenty-eight (28) properties were recommended for nomination to the National Register of Historic Places. The Massachusetts Historical Commission determined 16 to be eligible for listing. Six have since been listed.

The oldest church building in Eastham is the Chapel-in-the-Pines (Unitarian-Universalist) dating from 1889. It is individually eligible for listing in the National Register and is now listed there as a contributing building in the Eastham Center National Register District. A major financial sponsor of the Chapel's construction was Captain Edward Penniman whose house and barn at Fort Hill is a National Register property.

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Scenic Landscapes

The Massachusetts Landscape Inventory, established by the Department of Environmental Management (DEM), "identifies and locates the Commonwealth's important natural features" including the salt marshes of Eastham in the Cape Cod Natural Seashore Unit. These marshes, primarily the Nauset marsh, are visible from the Fort Hill area, Seashore trails, and the old Coast Guard Station area at Coast Guard Beach.

There are several distinctive scenic areas, which can be viewed from Town-owned lands. These include the Lamont Smith and Louise Horton areas, the Fort Hill area looking out to Town Cove, Coast Guard Beach and Nauset Beach in Orleans, as well as to the salt marshes, the Cape Cod Rail Trail with views of several marsh and pond areas; Town Cove at Collins Landing as seen from Route 6; Boat Meadow landscape as seen traveling north on Bridge Road, all of the Town landings and beaches, and the Atlantic Ocean and Coast Guard Beach as seen traveling south on Ocean View Drive from Cable Road.

Culturally Significant Landscapes and Scenic Roads

Eastham's cemeteries are significant contributors to the historical character of its cultural landscape. The Cove Burying Ground (1660 - 1770), also the site of the Town's first church, contains the graves of three Mayflower passengers and many of the first settlers. The Bridge Road Cemetery (1754 - 1886), also the site of the Town's second church, buried succeeding generations of the original residents. Both cemeteries are listed in the National Register of Historic Places. The Congregational and Soldiers Cemetery was established in 1829 when a new church was built on the King's Highway (now Route 6). The complete name derives from a Civil War Memorial erected on the grounds. A Methodist burial ground and church were established in the early 1800's on the King's Highway and is now the Evergreen Cemetery.

The most popular culturally significant landscape in Eastham is the "Windmill Green" located on Route 6 and Samoset Road. The wind-driven gristmill is the oldest on Cape Cod and a favorite tourist attraction. It has been at its present site since 1808 and is listed in the National Register of Historic Places as a contributing structure to the Eastham Center Historic District.

Eastham is fortunate to have many scenic roads featuring combinations of tree-lined vistas, historic houses, and ocean, pond and marsh views. The Eastham Historic Commission has compiled a list of scenic roads that include: Bridge, Cable, Dyer Prince, Fort Hill, Governor Prence (east of Route 6), Great Pond, Hemenway, Herring Brook, Lawton, Locust, Massasoit, Nauset and Salt Pond Roads, Ocean View Drive, and Smith Lane. Although these roads have not been designated as Scenic Roads (pursuant to MGL Chapter 40 Section 15C) they are recognized as special features in the community and should be so treated.

Areas in Need of Improvement

Most of the areas identified as "in need of improvement" due to unattractive signage, inadequate landscaping and screening, and in need of pedestrian amenities are located on Route 6 from Old Orchard Road north to the Wellfleet Town line. Some areas are also located south of Nauset Road in the Town Hall area. National Seashore properties suffer from lack of funding for cultural resources and will continue to be in need of some renovation. While general conditions of the private structure inventory is considered to be satisfactory, there are some properties in need of general maintenance and repair.

A major and growing threat to the visual appeal of Eastham's scenic roads and traditional community character comes from the proliferation of overhead utility lines. Reflecting a combination of new construction, the advent

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of cable television service during the mid-1980s, and greatly increased demand for both electricity and telephone service, recent years have seen the addition of many new utility poles along town roads and replacement of short poles with taller ones that are out of scale with both the local architecture and the landscape. Cable, transformers and other related equipment are also on the increase, creating visual pollution and intruding on the vistas of marshes, shorelines, ponds and historic buildings. An increasing number of mature trees are being mutilated to accommodate the new wires, cables, and walkways.

Analysis

Existing Protections for Historic, Scenic and Cultural Resources

Properties within the Old Town Historic District are protected from inappropriate alteration and demolition. The Historic District Commission reviews new construction, reconstruction, alterations, movement and demolitions of all exterior architectural features of buildings and structures within the district visible from a public street, way or park.

Historic properties within the National Seashore are provided some protection through the use limitations of the Seashore District and through Park Service review of alterations to improved properties. Historic Properties listed on the State or National Register of Historic Places and outside municipal historic districts are provided protection through the Cape Cod Commission Act. These properties and sites can be protected from "substantial alteration" or demolition by Local Historical Commission or other agency referral to the Cape Cod Commission for review.

Current and Projected Threats to Community Character

Route 6 has long been Eastham's "main street." The community character of Eastham, however, has been threatened by commercial sprawl in the form of strip development along this route. Signage, building design, overhead utilities, and landscaping (or lack thereof) have contributed to a sense of suburban sprawl along this major thoroughfare. This "sprawl" detracts from the inherent nature of Eastham. Several measures were undertaken in the late 1980s, which have helped curb the further deterioration of this route through re-zoning and use limitations. However, traffic associated with the Seashore as well as with those traveling to and from Provincetown continues to pose a threat to the small-town character of Eastham. The formation of a plan addressing improvements to existing businesses, signage, landscaping, parking requirements, pedestrian flow and traffic safety along this vital route is necessary to mitigate current and projected community character concerns. See Transportation section.

The growing development of communications towers and windmill generators is also of concern as companies compete to expand service to Cape Cod. Regulations governing the location of cellular towers and other transmission facilities are necessary to limit impacts to environmental resources, important vistas and other areas with distinctive community character. Eastham has adopted a by-law limiting the location of cellular towers to town owned land.

In recent years serious concern has been expressed by Eastham residents over the construction of large-scale single-family homes and their impact on community character. Additionally, current owners of cottages on small lots close to Cape Cod Bay are applying for permits to make substantial square footage upgrades that will impact community character. Responding to concerns from residents and other Town regulatory boards the Planning Board prepared a new zoning article for residential site plan review, which was approved by a special town meeting in 2001. The planning board reviews and modifies about 10 requests per year for structures that exceed the allowed footprint or square footage. This helps keep new construction in character with the neighborhood.

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Current and Projected Threats to Historic Resources

Outside of the Town's Historic Districts, there is little protection afforded historic properties in Eastham. Current and projected threats to the historic inventory include property owner disinterest or financial inability to maintain a historic property, remodeling projects that destroy historic features, properties which fall into disrepair due to extended litigation, and new development in close proximity to a historic property and not in architectural congruence with it.

Strategies to Protect Identified Resources

Historic Districts afford the highest level of protection for historic properties. While the expansion of a current district is a future possibility, the creation of any new district is unlikely. Emphasis should be placed on the nomination of individual properties to the National Register of Historic Places in order to provide greater recognition of their significance and protection from substantial alteration or demolition under town by-law and the Cape Cod Commission Act.

A demolition delay by-law is in place that provides a procedure to forestall the immediate demolition of any structure of potential historic significance until a public hearing can be held to make a final determination, and, if appropriate, initiate action to preserve the structure. The bylaw has been invoked successfully in its only two applications since its approval in 1996.

Signage, building design, landscaping, lighting, pedestrian circulation and parking requirements, accompanied by selective "undergrounding" of overhead utilities, are needed to facilitate protection of the Town's inherent character. Boards and Committees are addressing these issues along the Route 6 corridor and in other areas of Eastham. All commercial building permits trigger site plan reviews which may recommend landscaping, lighting arrangements and general layouts for lots and structures. Residential building permits for structures which might impact community character or historic resources are referred to the Planning Committee for a site plan review. Although relatively few permits are denied, changes which would improve community character and preserve historic resources are frequently proposed. Recently about 25 such reviews are done annually.

Scenic Roads approved by Town Meeting action are protected against tree cutting and stonewall removal during repair or resurfacing activities carried out by the Town until approval is obtained from the Planning Board after a public hearing. While the Historic Commission has identified a number of scenic roads, none has been so designated by Town Meeting action. The Town should designate scenic roads and adopt regulations for administration of the Scenic Road Act to preserve the tree lined side roads so characteristic of the area and as included in several goals.

The celebration in 2001 of Eastham's 350th anniversary as a town resulted in a significant increase in interaction and communication among town committees, Cape Cod National Seashore staff, and local community groups such as the Chamber of Commerce, Eastham Forum, Eastham Historical Society, and Nauset Light Preservation Society. Under the leadership of the 350th Anniversary Committee a yearlong series of historically oriented programs and events gave residents a heightened sense of their heritage and community character. The Town should continue to use such a cooperative network for the purpose of developing information for all parties regarding opportunities to preserve historic properties and community character. Information regarding historic preservation restrictions and existing tax incentive programs that can encourage appropriate renovation and alteration of historic properties should be compiled and made available to interested individuals.

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Implementation

Recommended Town Actions

A. Continue to inventory its historic resources. Structures, landscapes or sites of historic significance should be protected through individual nominations for listing in the National Register of Historic Places and subdivision regulations which provide for review of potential impacts to historic and archaeological resources.

B. Establish a scenic road by-law with guidelines that preserve the character of roads already designated by the Historical Commission.

C. Adopt a by-law which limits land clearing and alteration of natural topography prior to development review, as discussed in the Commission's Model Land Clearing, Grading and Protection of Specimen Trees By-law, and a landscape ordinance which protects existing trees and requires landscaping and screening of new development from major roads.

D. Actively encourage the undergrounding of existing utility lines and structures in locations where they detract from historic and cultural features, community character and scenic views.

E. Provide protection of archaeological resources by enacting changes to both the subdivision bylaws and wetland protection regulations.

See "Heritage Preservation/Community Character" and "Land Use" in Implementation Section.

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XX. IMPLEMENTATION

The Town of Eastham has many opportunities to enact measures to protect the quality of life and to achieve the vision of the Town. To reach this vision for the next twenty years, the Town through the Local Comprehensive Plan has articulated a series of goals, policies and plans. Measures to implement the plan have been selected, which are cost-effective and flexible enough to serve the present population of approximately 5,500 persons and a portion of the anticipated buildout population in the region.

It is anticipated that the decisions to provide public services will be made within the existing structure of local governments. Nevertheless, the production and distribution of some services may be done more efficiently and fairly on a larger scale. For example, the Regional Transit Authority necessarily provides services in each town and across the Cape. Eastham's specialized library communicates with other specialized libraries and exchanges books with themserving a region larger than its own immediate neighborhood. Other examples and other possibilities for regionalization exist. Currently assessor's services and building official services are being considered for regionalization.

The Implementation Table which follows includes: suggested implementation measures, actions required, agency(s) responsible, priority of the action, and status of the action. In as far as practical, the measures selected and recommended in this Plan expand on existing Implementation Programs, Town Bylaws and Regulations. The program incorporates the recommendations of the various sections of the report, the contributions of other committees and individuals, and builds upon the programs, bylaws and regulations in place. It requires limited expenditures and is cost effective.

The contents of the Eastham Local Comprehensive Plan are advisory. Although the town is not mandated by law to carry out any recommendation contained in this Plan, the suggested actions in the 2002 Plan have been reviewed and many have been wholly or partially implemented. If actions are regulatory or financial in content they must come before town meeting for a 2/3 vote. Other actions are left to the discretion of the participating boards or committees within the provisions of the open meeting law ensuring that all town residents will have fair access to the discussions of these recommendations.

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Implementation Schedule Key

Responsible Board(s)/Agent(s):

BOH – Board of Health	Town Admin – Town Administrator
Library – Library	DPW – Public Works Department
BOS – Board of Selectmen	Town Meeting – Town Meeting
NRO – Natural Resources Office	FinCom – Finance Committee
BRD – Beach Recreation Department	WRAB – Water Resources Advisory Board
Planning Board – Planning Board	HD – Health Department
Building Inspector – Building Inspector	Zoning Board – Zoning Board of Appeals
Open Space – Open Space Committee	HSC – Human Services Commission
ConCom – Conservation Committee	

Key to Estimated Priorities:
A – Most Important
B – Very Important
C – Important

Implementation Status:
ON – Ongoing Activities
TBD – To Be Determined
UN – Undertaken

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
LAND USE/ GROWTH MANAGEMENT	Adjust its zoning to accommodate recommendations of the land use plan, e.g., adopt a Highway Residential District and a Working Waterfront Overlay Zone. Update Future Land Use Map (Map 2) during next LCP update.	Planning Board/ Town Meeting	B	TBD
	Augment performance standards, e.g. for lighting, noise, and odors, as well as stormwater runoff and erosion control, by revising the zoning bylaws.	Planning Board Town Meeting /	A	TBD
	Amend the zoning bylaws to add language on curb cut control and develop a comprehensive curb cut strategy to Route 6.	Planning Board/ Town Meeting/ the Cape Cod Commission/MA Highway Department	B	ON
	Revise the zoning bylaws for building and parking setback and landscaping requirements for commercial developments.	Planning Board/ Town Meeting	A	ON
	Continue to study the possibility of working with N/Star and the state and consider funding of undergrounding of utility lines along town roads or on town-owned land in any area where the required poles, wires, cables, aerial transformers and other related electrical and telecommunications equipment are deemed visually intrusive and/or a safety hazard.	Planning Board/ Town Meeting	B	TBD
	Revise and reformat the Zoning bylaws and develop a Table of Use Regulations and a Table of Dimensional Requirements. Move towards greater alliance between the LCP and Zoning Bylaws.	Planning Board/ Town Meeting	B	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
LAND USE/ GROWTH MANAGEMENT	Amend the Zoning bylaws to establish a multi-category threshold that would trigger special permit review of large/high traffic generating commercial and mixed-use developments.	Planning Board/ Town Meeting	B	TBD
	Amend the Zoning bylaws to create a definition of "strip" development and make it a prohibited use in the table of use regulations.	Planning Board/ Town Meeting	A	TBD
	Develop a zoning amendment that provides incentives for by-right cluster developments and shared access to residential and commercial developments by way of zero side lot lines or reduced parking requirements.	Planning Board/ Town Meeting	B	TBD
	Revise Section IX, B setback requirements and Section XI landscaping requirements to provide for thickly vegetated buffers.	Planning Board/ Town Meeting	A	TBD
	Prepare plans for the Town Hall and Brackett Road areas, to include sidewalks, footpaths, parking, pedestrian crossing, traffic mitigation, lighting, landscaping and undergrounding of overhead utilities.	Planning Board/ Town Meeting	B	TBD
	Purchase vacant land as protected open space, especially on Route 6 as identified in the open space plan.	Town Admin /BOS/Planning Board/Town Meeting	A	ON
	Increased lot sizes for residential development on Route 6.	Planning Board/ Town Meeting	A	ON
	Create incentives for commercial uses on Route 6 for shared curb cuts with adjacent properties.	Planning Board/ Town Meeting	B	TBD
	Creating greater incentives for infill and redevelopment in areas where coordinated access can be provided.	Planning Board/ Town Meeting	B	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
LAND USE/ GROWTH MANAGEMENT	Consideration of a Transferable Development Rights system as a means to relocate existing, poorly sited commercial development, and better accommodate future development potential in the corridor.	Planning Board/ Town Meeting	B	TBD
	Explore other measures to limit buildout throughout the Town.	Planning Board/ Town Meeting	A	ON
	Explore zoning measures to limit growth due to influence of municipal water and wastewater infrastructure i.e. "Growth-Neutral" bylaws.	Planning Board/ Town Meeting	B	TBD
	Amend the Zoning Bylaws to improve economic development opportunities in Eastham by furthering North Eastham Village Center concept plan as a new or overlay zoning district.	Planning Board/ Town Meeting	A	ON
	Create a by-right Cluster Subdivision bylaw with greater incentives i.e. density bonuses for affordable housing components.	Planning Board/ Town Meeting	B	TBD
	Amend its subdivision rules and regulations to take advantage of the three open space dedication provisions in MGL, Ch.41 Subdivision Control Law.	Planning Board	A	TBD
	Amend its subdivision rules and regulations to require the submitting of a preliminary cluster plan for new Development of five or more lots.	Planning Board	A	ON
	Amend its subdivision rules and regulations to require natural drainage designs with buffers to wetlands.	Planning Board	A	ON
	Amend its subdivision rules and regulation to require separate drainage lots and access ways to drainage areas.	Planning Board	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
WATER RESOURCES	Develop long-term and short-term potable water management plans.	WMC	A	ON
	Monitor groundwater contamination and propose remediation programs.	HD, WMC	A	ON
	Develop a systematic well water quality monitoring program and water quality database.	HD/BOH, WMC	A	ON
	Conduct hydrogeological studies in vulnerable or impaired areas of Town (landfill, Brackett Road, Route 6, HAZMAT release sites).	HD	A	ON
	Plan financial resources for: development of a water quality database; hydrogeological and water quality studies in impaired areas; implementation of water supply management recommendations.	WMC, Town Admin, FinCom	A	ON
	Develop recommendations and support actions that will preserve future options for quality groundwater supply sources.	Open Space, HD/BOH, WMC, ?, CPC	A	ON
	Determine quality and quantity of potable water available for: on-site supply wells; a public water supply limited to areas with significantly degraded groundwater; a public water supply to all areas.	NRO, WMC	2	OB
	Explore establishment of town-wide limited public water supply.	WMC	A	ON
	Assess the need for designation of additional environmentally sensitive areas where special protective measures for water would be appropriate.	BOH/HD, WMC, NRO	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
WATER RESOURCES	Develop long-range wastewater management plan.	BOH, WMC	A	TBD
	Promote use of alternative septic treatment systems where they can provide benefits.	BOH/HD, WMC	A	ON
	Support and ensure diligent monitoring and maintenance of alternative septic treatment systems.	BOH/HD	A	TBD
	Explore wastewater management alternatives and objectives by initiating wastewater management planning activities.	BOH/HD, WMC,CPC	A	TBD
	Continue the formulation of bylaws and regulations that will protect Eastham's water resources.	NRO, HD/BOH, WMC	A	ON
	Expand and improve public education and the dissemination of information about water contamination issues.	WMC, HD/BOH	A	ON
	Actively promote water conservation to reduce the volume of clean water that is converted into contaminated wastewater.	WMC	A	TBD
	Improve communication and coordination of water resources information: among Town boards/committees and staff concerned with water resources (i.e., BOH/HD, NRO/ConsCom, Open Space, LandCom, DPW, Town Admin); and in particular between Eastham, Orleans, Wellfleet, and National Seashore.	All Boards with WMC Coordination	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
WATER RESOURCES	Protect freshwater ponds, wetlands and coastal embayments against the harmful effects of contamination from various sources and recreational uses.	NRO, ConCom	A	ON
	Protect the tidal flushing of all wetlands.	NRO, ConCom	B	ON
	Implement protection for freshwater wetlands and ponds from storm water discharge.	NRO, DPW, ConCom	A	ON
	Enforce the present 5 ppm nitrate-nitrogen loading standard.	BOH, DPW	A	ON
	Limit the introduction of chemicals such as fertilizers and pesticides into the groundwater.	WMC	A	TBD
	Reduce the use of road salt.	DPW, ConCom	A	ON
COASTAL RESOURCES	Designate a "working waterfront" overlay zone in the area of Collins Landing in Town Cove to ensure the preservation and expansion of traditional maritime uses.	ConCom/NRO/ Planning Board	B	TBD
	Confirm designated traditional rights-of way to the shore through appropriate legal means.	ConCom/NRO	C	TBD
	Restrict development or increase in use in environmentally sensitive nearshore areas and limit septic impact of development.	ConCom/BOH	A	TBD
	Initiate a harbor planning study, targeting Rock Harbor, to develop a framework and guidelines for use and dredging activities.	ConCom/NRO	C	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
COASTAL RESOURCES	Review areas designated as Federal no discharge zones for boats to be certain they meet current Federal and State guidelines.	ConCom/NRO	A	ON
	Continue to cooperate with the regional efforts to provide disposal options for marine head waste.	ConCom/NRO	A	ON
	Monitor by-laws and regulations established to reduce the potential impacts to health and safety and the economy resulting from coastal storms.	ConCom/ Planning Board	A	ON
	Update the list of projects that provide or enhance coastal access and use of their shoreline.	ConCom/NRO	C	TBD
	Encourage "soft" solutions to coastal erosion instead of engineered structures.	ConCom/NRO	B	TBD
	Develop a comprehensive plan to require annual beach nourishment/replenishment as a condition for permission to install, maintain or rebuild a revetment.	ConCom/NRO	A	ON
	Secure easements for public ownership of tidal flats between mean high and mean low water.	ConCom/NRO	C	TBD
	Maintain a regular dredging schedule for Rock Harbor.	ConCom/NRO	A	ON
	Explore the feasibility of using Rock Harbor dredged materials for beach nourishment projects.	ConCom/NRO	B	TBD
	Continue to upgrade and expand beach services.	ConCom/NRO/ Recreation	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
COASTAL RESOURCES	Implement a continuing environmental education program.	ConCon/NRO	C	TBD
	Continue and expand the shellfish propagation and predator control efforts for both recreational and commercial uses.	ConCon/NRO	A	ON
	Pursue the establishment of community rather than individual private docks in the area of Town Cove.	ConCom/NRO	B	TBD
	Identify and cleanup the existing point source discharges of storm water from roadways such as Route 6.	DPW/ConCom	A	ON
	Target the salt marsh areas along Cape Cod Bay which are subject to administrative closure for sanitary survey and restoration/ remediation programs.	ConCom/NRO	B	TBD
	Identify and map wetlands and vernal pools so as to maintain their ability to provide natural functions.	ConCom/NRO	B	ON
WETLANDS WILDLIFE AND PLANT HABITAT	Adopt a wetlands bylaw that provides for the following: protection of vernal pools outside other resource areas as well as isolated wetlands, a policy of no alteration/replication of wetlands for both public and private applicants, expansion of jurisdiction beyond 100 feet where appropriate, improved enforcement authority, and the ability to hire consultants to review applications at the applicant's expense.	ConCom/NRO	A	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
WETLANDS WILDLIFE AND PLANT HABITAT	Develop mutually acceptable policies for wetland boundary delineation and the siting of new subsurface disposal systems as well as improving and retrofitting areas with failing systems.	ConCom/BOH	A	TBD
	Develop and implement plans to address existing stormwater management problems where runoff and drainage systems are adversely affecting water quality in wetlands and water bodies.	ConCom/DPW/BOH/Planning Board	A	TBD
	Seek ways to remediate tidal restrictions.	ConCom/DPW	B	TBD
	Develop a review process for activities in critical plant and wildlife habitat areas.	ConCom/NRO	B	TBD
	Adopt by-laws/ordinances limiting land clearing and alteration of natural topography prior to development review.	ConCom/ Planning Board	B	TBD
	Conduct an analysis to assess potential growth impacts upon wetland areas.	ConCom/NRO	B	TBD
	Conduct an analysis to assess potential growth impacts upon wildlife and plant habitat areas.	ConCom/NRO	B	TBD
OPEN SPACE	Develop a comprehensive open space protection program in order to meet future open space and recreation needs.	Open Space/ConCo/ Recreation CPC	B	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
OPEN SPACE	Update its Open Space and Recreation Plan every five (5) years and submit it to the State to maintain eligibility for Open Space funding under federal and state grant programs.	Open Space/ ConCom/NRO / BRD/ Planning Board ,CPC	A	ON
	Work with the Eastham Conservation Foundation to identify, acquire and manage open space and conservation restrictions.	Open Space/ ConCom/NRO, CPC	A	ON
	Work with the Eastham Conservation Foundation and with landowners participating in the Chapter 61 programs to acquire conservation restrictions on those lands or should set aside funds for their purchase if they are proposed to be sold for development.	Open Space/ ConCom/NRO , CPC	A	ON
	Develop a cluster by-law and actively promote its use where this alternative would allow protection of open space and recreation lands, environmentally sensitive areas and/or provide for needed trail corridors.	Open Space/ ConCom/Planning Board ,CPC	A	ON
	Amend its subdivision regulations to take advantage of Section 81U of the Subdivision Control Law which permits towns to require open space set-asides within subdivisions for future acquisition.	Planning Board	A	ON
	Continue to maintain and protect public access to both freshwater and saltwater bodies for recreational purposes.	ConCom/BOH/ NRO, CPC	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
OPEN SPACE	Investigate possible loops or connectors with the existing biking and walking paths, identify parcels for acquisition, establish a bike safety course, recommend measures to mitigate safety concerns, and identify opportunities for additional parking in proximity to the Cape Cod Rail Trail.	Planning Board/Bike Committee	A	ON
	Maintain Town-owned land within the Cape Cod National Seashore as open space.	ConCom/NRO	A	ON
	Continue to expand the current programs to include all age groups and consider additional sites for ball field and basketball facilities.	Recreation	A	ON
	Construct a multi-use sports building.	Recreation	B	TBD
	Encourage landowners to restore blighted or abandoned areas to open space.	ConCom/NRO/ Planning Board	C	TBD
	Aggressively seek to acquire tax title lands and hold them for community purposes.	BOS	A	TBD
	Evaluate the need for a youth center community facility.	Recreation	B	ON
	Consider recreation needs in the development of plans for the Town Hall area and for the Route 6 and Brackett Road area.	Planning , Recreation	B	ON
	Revise Open Space Map to include key differentiating between types of ownership/control.	Open Space/ Planning Board	B	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
AIR QUALITY	Examine existing land use patterns and identify suitable locations for mixed-use development aimed at reducing automobile travel and air emissions.	Planning Board	B	ON
	Work with the Commission and DEP to further the understanding of air quality problems that affect Eastham and provide public education about way residents and businesses can improve air quality.	Board of Health	A	ON
	Promote the use of alternatives modes of transportation including: public transit services, carpooling, bicycling and walking to destinations when possible.	Board of Health	A	ON
	Research the availability of bio-diesel and its potential use for the municipal fleet.	DPW	C	ON
ECONOMIC DEVELOPMENT	Meet with businesses and business organizations to ascertain economic development needs in the community.	Chamber of Commerce	C	TBD
	Create regulations that provide incentives for businesses to locate in compact mixed-use centers.	Planning Board/Town Meeting	B	ON
	Work with the private sector including the Chamber of Commerce to identify and develop entrepreneurial and business activities compatible with towns' existing strengths and resources.	Chamber of Commerce/All Town	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
ECONOMIC DEVELOPMENT	Prepare and take steps to deal with traffic issues at the Brackett Road/Route 6 area.	Planning Board/ConCom	A	TBD
	Promote with particular attention to increasing "off-season" activity, including Windmill Weekend and the fall foliage period.	BOS/Chamber of Commerce	A	ON
	Actively support efforts to obtain frequent, affordable, year-round express bus service along Route 6 to enable Eastham residents without access to a car to work in other towns on Cape Cod and off-Cape.	BOS/Chamber of Commerce	A	ON
	Augment performance standards for business and industrial areas to include such items as lighting, surface treatment, erosion, noise, water and air pollution.	Planning Board	B	TBD
	Encourage the use of the home as a business (home occupation), such as telecommuting and direct mail.	Chamber of Commerce	C	TBD
	Request the Eastham Chamber of Commerce to act as the responsible agency to represent Eastham before the Cape Cod Economic Development Council for the purpose of identifying a small, "clean" industrial firm that would consider locating in Eastham.	Chamber of Commerce	A	ON
	Cooperate with the Chamber of Commerce in periodic surveys of local businesses to learn about business issues and impediments to economic development.	COC/Planning	A	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
ECONOMIC DEVELOPMENT	Develop a pedestrian walkway system in local business centers to encourage small-scale boutique commercial development.	Planning Board/ DPW	B	TBD
	Develop a feeder bicycle path system to support bicycle commuting to shop, work sites, the post office and the Rail Trail.	Planning Board/ DPW , CPC	B	ON
	Participate with the Cape Cod Commission in developing a 20-year Regional Infrastructure and Facilities Plan.	BOS/Chamber of Commerce, LRPAB	A	ON
	Continue the five-year capital improvement plan.	Town Admin	A	ON
	Continue participating in investigation and data collection for surface water quality data such as Town Cove.	BOH/ConCom/NRO	A	ON
TRANSPORTATION	Implement a Site Plan Review process, which addresses curb cut reductions and access control.	Planning Board/DPW/Town Meeting	A	ON
	Identify areas in need of curb cut reductions and/or access improvements and make recommendations for the accomplishment of these reductions to the Massachusetts Department of Transportation.	Planning Board/DPW	A	ON
	Develop an aggressive open space preservation program to reduce the build-out potential of the Town (see Open Space section).	BOS/NRO	C	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
TRANSPORTATION	Establish a traffic impact assessment program to require an evaluation of the impacts of new developments and expansions (especially non-residential) on Levels of Service for local and state roadways.	Planning Board	B	ON
	Request that the Massachusetts Department of Transportation provide turning lanes and a pedestrian crossing at Brackett Road and Route 6. Further, the Town should consider additional turning lanes, signalization, and pedestrian crossings at other dangerous intersections or problem areas along Route 6.	Planning Board/DPW	A	ON
	Construct sidewalks along Route 6, Massasoit Road, Oak Road and the Old State Highway, as well as other areas, which are heavily used by pedestrians.	DPW	C	TBD
	Identify and re-establish (if appropriate) any abandoned rights-of-way.	DPW	C	TBD
	Work with the Massachusetts Department of Transportation to ensure sidewalks are clear of snow and ice.	DPW/MHD	A	ON
	Work with the appropriate agency(s) to remove, relocate or bury utility lines.	DPW	A	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
TRANSPORTATION	Create a Town Hall area plan to include signage, lighting, sidewalks, undergrounding of utilities, and additional traffic mitigation measures for this area, both to slow traffic speed and to increase the awareness of Eastham's civic and historic (Windmill) center.	Planning Board	B	TBD
	Begin to identify Route 6 as "Main Street" or "Grand Army of the Republic Highway" to give Eastham a greater sense of place. Signage entering the Town can emphasize this recognition, which should distinguish this portion of Route 6 from any other.	BOS/Planning Board/Historic Commission	B	ON
	Consideration should be given to installation of bicycle racks and rentable storage bins in appropriate locations. The committee should also encourage the State to consider additional Rail Trail parking.	Bike Committee	A	ON
	Increase buffers and/or adopt a land coverage requirement to reduce the intensity of non-residential development and resulting vehicle trips per day.	Planning Board	B	ON
	Implement the recommendations of the Eastham Pavement Management Study.	DPW	B	ON
	Provide signage along the Cape Cod Rail Trail to indicate beaches, commercial areas and other attractions within the Town.	DPW/MHD/ DEM/N PS	B	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
TRANSPORTATION	Work with neighboring public transportation communities, the State, the Cape Cod National Seashore and others to improve seasonal bus service in the Outer Cape, including increased shuttle service to National Seashore beaches from remote parking areas and town center locations.	BOS	A	ON
	Construct local by-laws to increase lot sizes and the frontage of lots on Route 6.	Planning Board/Town Meeting	B	TBD
	Include "walk" signals for pedestrians and bicycles on Route 6.	DPW/Planning Board	A	ON
	Ensure Highway signage is in accordance with the Manual of Uniform Traffic Control Devices.	DPW/Building Inspector	C	ON
	Require regulatory and warning traffic signs that employ symbols.	DPW	A	TBD
	Remove inappropriate and unnecessary traffic signage.	DPW	A	TBD
	Work with Massachusetts Department of Transportation and the Cape Cod Commission to pursue installing a traffic signal at the Route 6 / Governor Prence Road intersection to improve traffic and pedestrian safety.	BOS/Planning Board	A	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
SOLID AND HAZARDOUS WASTE	Work with other Cape Cod communities to find acceptable methods to recycle, compost or dispose of construction and demolition debris, mattresses, DPW wastes, and Tri-Town Septage Treatment Facility by-products (grit, screenings and sludge).	Recycling	A	ON
	Offset the increased cost of disposal of non-recyclable solid waste, focus on maximizing recycling by making recycling easy, by promoting access to recycling for seasonal residents, and by utilizing other incentives to recycling such as unit based pricing.	Recycling	A	ON
	Consider dedicated funding for an annual household hazardous waste collection for residents to dispose of accumulated hazardous waste.	Recycling	A	ON
	Contract to implement the redesign plan for the Transfer Station.	Recycling/Town Meeting	A	ON
	Adopt a toxic and hazardous materials bylaw to prevent the improper use, storage and disposal of such materials, utilizing the Barnstable County model bylaw or other similar bylaw.	Recycling	B	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
SOLID AND HAZARDOUS WASTE	Continue to work toward multi-town joint participation in the collection of hazardous waste with a goal of providing citizens the opportunity to drop off hazardous waste several times per year.	Recycling	A	ON
	Continue to seek out alternatives to processing of solid waste including possible regional solutions.	Recycling	A	ON
CAPITAL FACILITIES AND INFRASTRUCTURE	Continue the practice of participating with others in investigation and data collection for sub surface water such as the USGS study.	BOH/ConCom/NRO	A	ON
	Continue to support local well water monitoring and data gathering programs such as the nitrate-testing program.	BOH/ConCom/NRO	A	ON
	Continue to press electric utility companies to underground service.	Planning Board	A	ON
	Consider development of certain town owned parcels as industrial land to foster local industrial development.	BOS/ Planning Board	A	ON
	Continue to work with the state to ensure improvements to Route 6.	DPW/MHD	A	ON
ENERGY	Work with Cape Light Compact.	Town Administrator	B	ON
	Regulate Energy Conservation Standards.	Town Administrator	C	ON
	Provide Incentives for Energy Conservation.	BOS	C	TBD
	Review Municipal Building for Energy Efficiency.	BOS	C	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
ENERGY	Study for Clean Alternative Fuels.	Town Administrator	C	TBD
	Conduct Public Energy awareness education programs.	Building Dept.	C	ON
	Analyze the possibility to reduce Number of Overhead Utility Lines.	Planning Board	B	TBD
	Document cost Savings – Apply Toward Future Programs.	Town Administrator	C	TBD
	Work With Home Builders Assoc.	Town Administrator	C	ON
	Establish Energy Committee.	BOS	A	ON
HUMAN SERVICES	Encourage annual reporting of Human Service agencies to Town.	HSC	A	ON
	Survey of needs for the formation of Children/Youth Council.	BOS/HSC	A	TBD
	New and Strengthen and expand Day Care after-school programs.	BOS/HSC	B	TBD
	Research and address the needs of the isolated elderly.	COA	B	TBD
	Contract for medical care for uninsured.	BOS	B	TBD
	Support for basic needs programs, i.e. food shelter.	BOS	C	ON

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
LIBRARY	Complete an assessment of current space, assessing and analyzing current space. Staff should keep a record of requests for meeting space that Library can and cannot fulfill.	Library	B	ON
	Develop a flexible meeting space that will accommodate at least 100 people.	Library	C	ON
	Develop expanded space to house a variety of materials in different formats.	Library	C	ON
	Continue cooperative efforts with the Eastham Historical Society and the Town of Eastham to provide improved access to, accommodation for, and the preservation of local historical and genealogical materials.	Library/Historical Commission	A	ON
	Make new contacts with community organizations and services offering the library as a clearinghouse for information.	Library	B	ON
	Attain a 90% rate of patrons surveyed being aware that information about the community resources is available at the library.	Library	A	ON
	Conduct an assessment of current space and determine what changes can be made within existing space to improve the library environment.	Library	A	ON
	Provide a variety of spaces to serve the age groups represented within the community, with a particular emphasis on young adults, home schooled and the physically/ mentally challenged.	Library	C	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
LIBRARY	Develop a list of local and other educational institutions.	Library	A	ON
	Identify the diverse community groups within the population.	Library	A	ON
	Develop, distribute and analyze a survey to identify the needs and priorities of these community groups.	Library	A	TBD
	Conduct annual evaluation of technological needs and resources.	Library	A	ON
	Explore and utilize outreach opportunities via local media.	Library	A	TBD
	Should become a primary venue for events, programs, and current topics.	Library	C	ON
AFFORDABLE HOUSING	Promote/adopt growth management bylaws.	Planning Board, Town Meeting, Eastham Housing Trust	B	TBD
	Promote/Adopt Zoning Changes that allow mixed-use development.	Planning Board, Town Meeting, Eastham Housing Trust	B	ON
	Establish housing committee/ partnership to develop policy.	BOS,CPC, Eastham Housing Trust	B	TBD
	Inventory public and private vacant land suitable for affordable housing.	Housing committee/partnership, Eastham Housing Trust	B	TBD
	Donate or lease town-owned land to the Housing Authority.	BOS, Eastham Housing Trust	B	TBD

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LCP Element	Recommendation	Responsible Board/Agent	Estimated Priority	Status
HERITAGE/ PRESERVATION	Continue to Inventory Historic Resources.	Historic Commission, Planning Board, CPC	B	TBD
	Nominate Qualified Properties for Listing in National Register.	Historic Commission, Planning Board, CPC	B	TBD
	Establish a Scenic Roads By-law.	Historic Commission, Planning Board	B	TBD
	Encourage undergrounding existing utility lines.	Historic Commission, Planning Board	B	TBD
	Adopt a By-law which limits land clearing and alteration of natural topography prior to development review.	Planning Board	B	TBD

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