



CHILMARK

COMMUNITY DEVELOPMENT PLAN



Prepared in conjunction with the Chilmark Board of Selectmen, the Chilmark Planning Board, the Chilmark Conservation Commission and the Chilmark Housing Committee

Prepared by the Martha's Vineyard Commission

Bill Veno, Coordinator
Christine Seidel, GIS
Christine Flynn, Affordable Housing and Economic Development
Bill Wilcox, Water Resources
Jo-Ann Taylor, Coastal Planner
Paul Foley, Scenic Values
Mark London, Executive Director
Jackie Campbell and Tanya Jilek, Publishing Assistance

With the cooperation of:

Philippe Jordi, Executive Director, Dukes County Regional Housing Authority
Vineyard Conservation Society
Sheriff's Meadow Foundation
The Nature Conservancy

The Community Development Planning Program was funded by:

The Department of Housing and Community Development
The Executive Office of Environmental Affairs
The Department of Economic Development
The Massachusetts Highway Department
The Martha's Vineyard Commission

Parts of this document are quoted from the Town's Master Plan and Open Space and Recreation Plan with updates from the MVC staff and/or the Town's Community Development Plan participants.

Note that statistics come from various sources and sometimes give slightly different figures for similar or even the same data (e.g. areas of towns, population, income).

Chilmark Community Development Plan

TABLE OF CONTENTS

1. Introduction

- 1.1 Community Profile
- 1.2 Constraints on Development
- 1.3 Planning Context
- 1.4 Community Development Planning Process
- 1.5 Methodology for Determining Suitability
- 1.6 Maps of Existing Conditions

2. Vision

3. Open Space and Natural Resources

- 3.1 Profile
- 3.2 Suitability Analysis
- 3.3 Orientations

4 Housing

- 4.1 Profile
- 4.2 Suitability Analysis
- 4.3 Orientations

5 Economic Development

- 5.1 Profile
- 5.2 Suitability Analysis
- 5.3 Orientations

6 Synthesis - Putting it All Together

- 6.1 Development
- 6.2 Development and Conservation
- 6.3 Zoning and Implementation
- 6.4 Next Steps

Appendix – Water Resources

1. INTRODUCTION

1.1 COMMUNITY PROFILE

1.1.1 Martha's Vineyard

Chilmark is one of six towns forming the Island of Martha's Vineyard, a 100-square-mile island located about three miles off the coast of Cape Cod. The Island is a terminal moraine, marking the southern progression of the last Ice Age. Home to the Wampanoag Native Americans, it was settled by Europeans in the mid 17th century.

Today, year-round residents, seasonal residents – many of whom own second homes – and hundreds of thousands of short-term visitors live on or come to the Island, attracted by the unique natural, historical, and cultural values that define the beauty and character of Martha's Vineyard.

As a coastal island, Martha's Vineyard's climate is influenced by warm Gulf Stream waters that moderate the Island's seasons. Summers are a bit cooler than the mainland, providing refuge from nearby hot and humid metropolitan areas such as Boston and New York. Winters are milder and autumn generally lasts longer than on the mainland, providing a more favorable climate for vacationers year-round.

Each of the Island's towns reflects its origins: Edgartown as the historical home of master seamen during the whaling era and still the seat of County government; Tisbury as the Island's year round gateway and market town, Oak Bluffs as the Island's first summer resort and continued concentration of summer activity, West Tisbury and Chilmark as agricultural villages, Aquinnah (formerly called Gay Head) as the Island's remaining Wampanoag Indian settlement and the site of perhaps the Island's most recognizable feature and only National Natural Landmark – Gay Head Cliffs. Three-quarters of the Island's population is distributed equally among the three "Down-Island" towns: Tisbury, Oak Bluffs and Edgartown, each with a busy commercial town center. Vineyard Haven in Tisbury serves as the Island's main port, seconded by Oak Bluffs in the summertime. The three "Up-Island" towns, West Tisbury, Chilmark and Aquinnah are more rural in character.

From 1900 to 1960, the year-round population of the Vineyard increased a bit more than 30%. The population doubled in the last quarter of the 20th Century, increasing 30% each decade. By comparison, in the 1990s, the year-round population increased only 6% in all of Massachusetts.

As a seasonal vacation area, the number of people on the Island changes dramatically from one season to the next. The Martha's Vineyard Commission estimates that the nearly 15,000 year-round Vineyard population in 2000 swelled to about 75,000 during the peak summer months of July and August. This summer population is made up of several distinct groups, each with its own influences and needs.

Estimated Average Summer Population - 2000

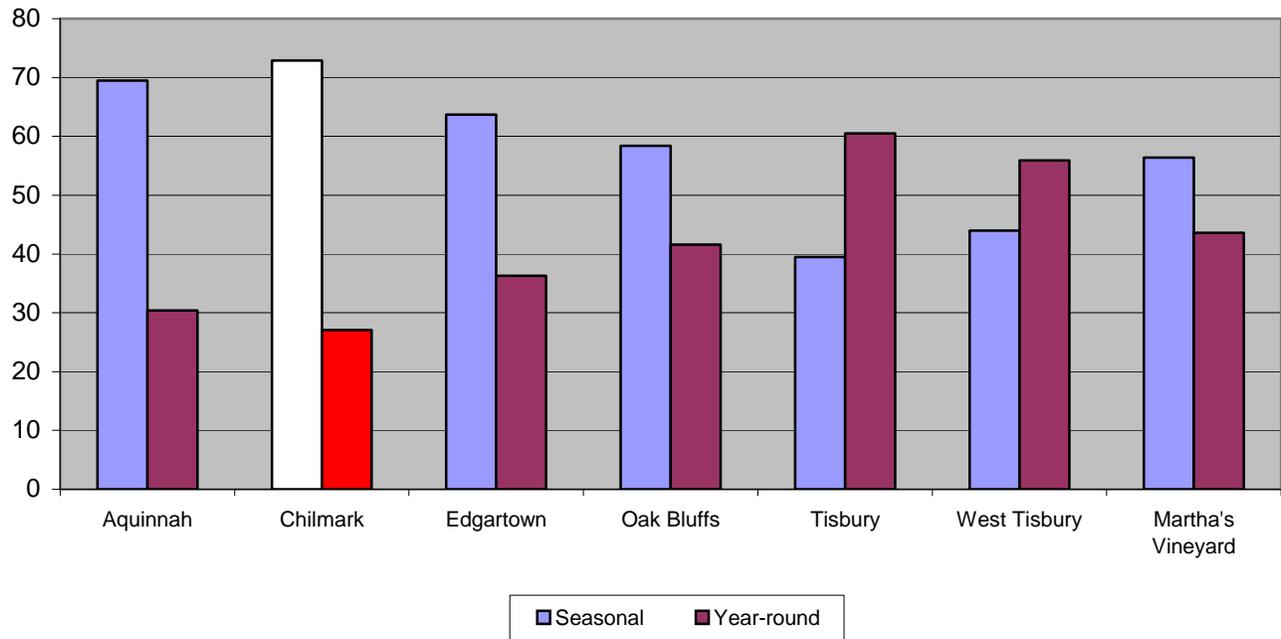
| | Aquinnah | Chilmark | Edgartown | Oak Bluffs | Tisbury | West Tisbury | Total |
|------------------------|-----------------|-----------------|------------------|-------------------|----------------|---------------------|---------------|
| Year-round | 344 | 843 | 3,779 | 3,713 | 3,755 | 2,467 | 14,901 |
| Guests of Year - round | 141 | 382 | 1,582 | 1,590 | 1,646 | 1,034 | 6,375 |
| Seasonal / Vacationers | 1,536 | 4,894 | 13,251 | 10,637 | 5,123 | 3,888 | 39,329 |
| Transients | | | | | | | |
| lodging rooms | 42 | 158 | 1,944 | 1,192 | 860 | 190 | 4,386 |
| on boats | | | 408 | 504 | 600 | | 1,512 |
| camping | | | | | 432 | | 432 |
| Day Trippers | | | 500 | 5,000 | 2,500 | | 8,000 |
| Cruise Passengers | | | | 1,000 | | | 1,000 |
| Total | 2,063 | 6,277 | 21,464 | 23,636 | 14,916 | 7,579 | 75,035 |

- Year-round population as reported by 2000 US Census. Some people have estimated that there are as many as 1,000 additional year-round residents and a total of 3,000 additional summer residents who are undocumented aliens. In the absence of clear data, they are not included.
- Guests of Year-round residents estimated as an average of 1 person for each of the 6,375 year-round households
- Seasonal Residents / Vacationers include second-home owners and renters who visit for a week or more. They are estimated as an average of 4.77 people for each of the 8,246 seasonal housing units, based on the results of a survey carried out by the Oak Bluffs Planning Board. It is estimated that about two-thirds of these are seasonal residents.
- Transients stay on-island for less than a week. Estimations assume two people per room and 100% occupancy for July and August in the Island's 2,200 lodging rooms, hotels, inns and B&Bs. The Edgartown, Oak Bluffs and Tisbury Harbor Masters estimated 3 or 4 people per boat and occupancy rates between 80% and 100% for the 468 boats that can be accommodated on slips and moorings in these three harbors. Camping is based on an average of 3 people per tent and 80% summer occupancy for the Island's 180 campsites in the MV Family Campground.
- Day Trippers arrive and leave the Vineyard on the same day. Estimates assume two-thirds of the peak passenger ferry ridership of 12,000 on peak summer days are day-trippers and the others stay for a longer period. Allocation among towns is based upon port of entry.
- Cruise Passengers are day trippers. Assumes one cruise ship with a capacity of 1,000 people in harbor on a peak day; in 2002, most cruise ships came in the spring and fall. Allocation among towns is based upon port of entry.

Source: MVC, 2003

Seasonal versus Year-round Housing Units

Percentage Breakdown by Town, 2000



Source: U.S. Census

It is easy to understand why the cornerstone of the Island's economy is providing services to seasonal residents and visitors. Island-wide, there are more seasonal homes – houses not occupied in the winter – than year-round homes. Only Tisbury and West Tisbury have more year-round homes than seasonal ones. The tourism and service industry is highly image-conscious, seasonal and labor intensive. Nevertheless, a large majority of the businesses on the Island employ four or fewer workers each. As the year-round population continues to expand, more businesses are needed and supported throughout the year.

Martha's Vineyard is marked by relative seclusion from the mainland, by its highly variable seasonal populations, by its lifestyles and landscapes dominated by the ocean and salt ponds, and by economic constraints unique to island communities.

1.1.2 Chilmark

The Town of Chilmark is a small rural community located toward the western end of Martha's Vineyard, bordered by the Vineyard Sound on the north, the town of Aquinnah on the west, the Atlantic Ocean on the south, and the town of West Tisbury on the east. Chilmark is known for its

beautiful beaches, its quaint and still productive fishing village, and its rural landscapes. Most of its 10,639 acres are devoted to residential and agricultural use. The town is a predominantly residential community that, in 2002, had 843 year-round residents.

The center of town houses a public library, originally a house built in 1790, a town hall built circa 1897, and a handsome church built in 1843 before being moved to its present location. These buildings have all had additions during recent years. In 2000, the Chilmark School, originally in a one-room schoolhouse built circa 1850, was relocated to a new building across the street.

Within Chilmark is the fishing village Menemsha. Fishing vessels come in with their catches year-round, and fresh seafood can be purchased there during the spring, summer and fall,. The harbor, in addition to a commercial pier where fishing vessels tie up, has a small yacht marina that is extremely popular during the summer months. Menemsha is also the home of a Coast Guard Station.

Chilmark is particularly welcoming in the fall of the year. The busy tourist season is over, the weather is beautiful and the rolling hills, woodlands and lovely panoramic ocean views make the town an extraordinary place to visit.

The Town was incorporated in 1694 and is administered by a Board of Selectmen and Open Town Meeting form of government.

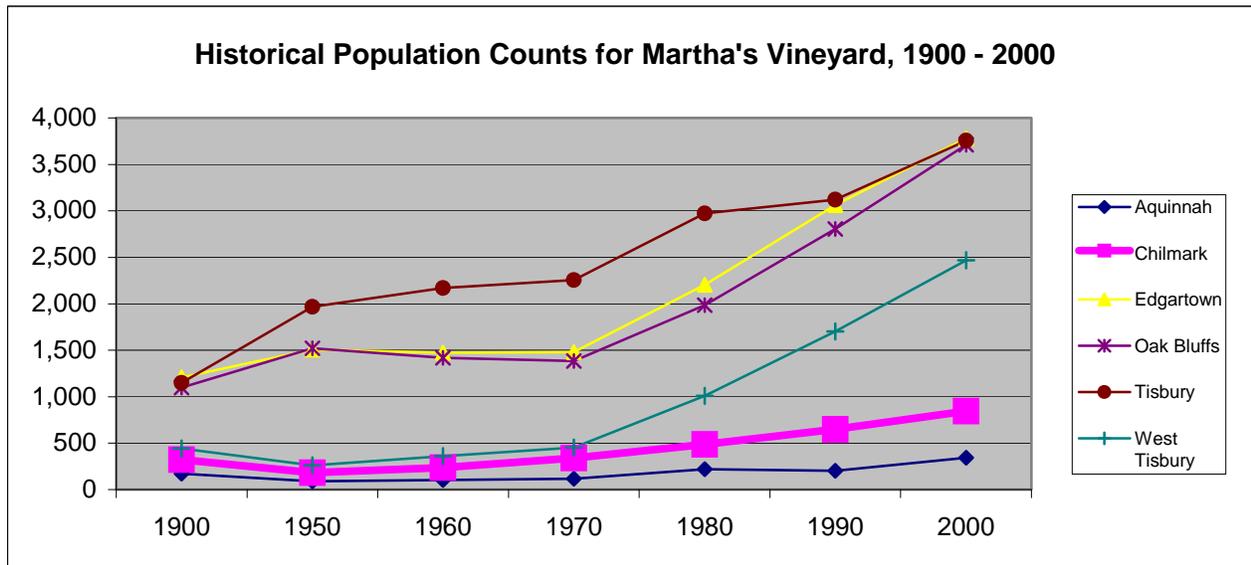
1.1.3 Population and Income

Since 1970, the year-round population growth of Chilmark as well as Martha's Vineyard has been significant. Between 1970 and 1980, the year-round population in Chilmark went from 340 to 489, which is a population growth of 44%. In 1990 there were 650 year-round residents so between 1980 and 1990 there was a population growth of 33% and in the year 2000, there were 843, which resulted in a population growth of 30% between 1990 and 2000.

According to the US Census 2000, the town of Chilmark ranked within the top twenty among the state's 351 communities in the median age category. The median age for the state was 36.5 while for Chilmark the median age was 45.6 and for Dukes County the median age was 40.7. Twenty three percent of the population is over the age of 60.

The median household income (non-related individuals living in the same household) in Chilmark was \$41,917 next to last place among the other Island towns; although, the median family income (related individuals living in the same household) was \$63,750 which was the highest of all of the island towns. The area median income as reported by HUD for a family of four in FY 2000 in Dukes County was \$53,200. Approximately twenty-three percent of households in Chilmark were paying over 35% of their gross income for housing, while just under twenty percent of renters paid more than 35% of gross income for rent. Six percent of families in

Chilmark were reported to be living below the federal poverty standard., in the 2000 US Census.



Source: U.S. Census

| Median Incomes For Dukes County, 2000 | | |
|--|------------------|-----------------|
| | Median Household | Median Family |
| Aquinnah | \$45,208 | \$45,458 |
| Chilmark | \$41,917 | \$63,750 |
| Edgartown | \$50,407 | \$55,153 |
| Gosnold | \$22,344 | \$27,500 |
| Oak Bluffs | \$42,044 | \$53,841 |
| Tisbury | \$37,041 | \$53,051 |
| West Tisbury | \$54,077 | \$59,514 |
| Dukes County | \$45,559 | \$55,018 |

1.1.4 Zoning and Land Use

The town of Chilmark has seven agricultural-residential districts. Five of the agricultural-residential districts, encompassing over 90% of the town, require a minimum of three-acre zoning. Two of the remaining districts, which comprise less than 2% of the total area of the town, are zoned for 1.5 and 2-acre residential development. Chilmark housing characteristics and zoning are more similar to its up-Island counterparts of Aquinnah and West Tisbury, as opposed to the down-Island towns Edgartown, Oak Bluffs, and Tisbury.

| Chilmark Land Cover/Use (Acres) | 1971 | 1986 | 1999 |
|--|-------|-------|-------|
| Agriculture | 406 | 478 | 652 |
| Open Undeveloped Land | 2,919 | 2,822 | 2,599 |
| Natural Land/Undisturbed Vegetation | 7,604 | 7,252 | 6,799 |
| Commercial | 5 | 5 | 7 |
| Industrial/Transportation/Mining | 14 | 21 | 21 |
| Urban Open/Institutional/Recreation | 242 | 256 | 263 |
| High Density Residential | 0 | 0 | 0 |
| Medium Density Residential | 12 | 12 | 18 |
| Low Density Residential | 990 | 1,340 | 1,828 |

Using the interpretation of aerial photography, the University of Massachusetts has tracked land cover or land use data (MacConnell Land Use). The data show that low-density residential acreage in Chilmark was nearly doubled between 1971 and 1999, with concomitant decline in open land. Agricultural acreage was increased by 61%. Modest increases were noted in commercial and urban open land. Large areas of land remain undeveloped and with undisturbed vegetative cover. Overall, the data show developed land to have been increased by 12% Island-wide during the twenty-eight year period shown. During that time, developed land in Chilmark was increased by 6.7%, with most of that development having occurred between 1985 and 1999.

| Development Island-wide 1971-1999 | | | | | | |
|--|--|--------------|--------------|--|-------------|--------------|
| Town | Change from Undeveloped to Developed Land (acres) | | | Change as Percent of Total Area | | |
| | 1971 - 1985 | 1985 - 1999 | 1971 - 1999 | 1971-1985 | 1985-1999 | 1971-1999 |
| Aquinnah | 56 | 218 | 274 | 1.5% | 5.9% | 7.4% |
| Chilmark | 371 | 502 | 873 | 2.8% | 3.8% | 6.7% |
| Edgartown | 1,133 | 979 | 2,111 | 6.2% | 5.3% | 11.5% |
| Oak Bluffs | 525 | 555 | 1,080 | 11.0% | 11.7% | 22.7% |
| Tisbury | 465 | 314 | 780 | 11.1% | 7.5% | 18.5% |
| West Tisbury | 820 | 1,431 | 2,251 | 4.9% | 8.5% | 13.4% |
| Vineyard | 3,371 | 3,998 | 7,369 | 5.5% | 6.6% | 12.1% |

The Massachusetts' Executive Office of Environmental Affairs published its Buildout and Land Use Study in 2001. The total land acreage of Chilmark is 13,553 acres. From the State's buildout analysis, just over 3,885 acres, or 29% of land in Chilmark is permanently protected as open space and not available for development. The study also reported that 36% of Chilmark is already developed and the remaining 35% of the town - 4,792 acres- potentially available for development or conservation in the future.

2000 Estimated Protected, Developed and Available Land (Buildout Study)

| Town | AQ | CH | ED | OB | TI | WT | Island |
|---------------------------|-------|---------------|--------|-------|-------|--------|---------------|
| Total (acres) | 3,690 | 13,553 | 18,184 | 4,680 | 4,142 | 16,878 | 61,127 |
| Protected Open Space* (%) | 15% | 29% | 39% | 30% | 20% | 42% | 34% |
| Developed/Built** (%) | 53% | 36% | 35% | 48% | 51% | 30% | 37% |
| "Available" *** (%) | 32% | 35% | 26% | 22% | 29% | 27% | 29% |
| "Available" (acres) | 1,177 | 4,792 | 4,664 | 1,014 | 1,214 | 4,609 | 17,470 |

*Protected Open Space includes municipally owned land not necessarily used for open space.

**Developed/Built includes lands that are prevented from being developed, such as wetland buffers.

***Available is defined as land that is neither Protected Open Space nor Developed/Built.

Source: EOEa Buildout Study, 2002

Within the context of the preparation of this Community Development Plan, the Martha's Vineyard Commission revised and updated the analysis of protected, developed and available land. The following table gives the resulting figures.

- 'Protected' areas are lands that, according to the Island's conservation groups, are either under fee ownership or indicated as having a CR or APR. The wetlands displayed are only those that are not currently 'protected'.
- 'Developed' areas were determined by MAPC during the Buildout Study in 2000 and only those 'developed' areas that do not coincide with 'protected' or 'wetland' areas are displayed.
- 'Available' land is any remaining land.

2003 Estimated Protected, Developed and Available Land (MVC)

| Town | AQ | CH | ED | OB | TI | WT | Island |
|--------------------------|-------|---------------|--------|-------|-------|--------|---------------|
| Total (acres) | 3,510 | 12,442 | 17,762 | 4,735 | 4,300 | 16,195 | 58,963 |
| Protected Open Space (%) | 22% | 20% | 40% | 30% | 20% | 40% | 32% |
| Developed/Built (%) | 33% | 40% | 32% | 40% | 47% | 35% | 36% |
| Wetland (%) | 13% | 6% | 7% | 3% | 5% | 2% | 5% |
| "Available" (%) | 31% | 33% | 22% | 33% | 29% | 22% | 26% |
| "Available" (acres) | 1,094 | 4,079 | 3,827 | 1,557 | 1,245 | 3,632 | 15,435 |

Source: Martha's Vineyard Commission and Conservation Partnership, 2004

1.2 CONSTRAINTS ON DEVELOPMENT

1.2.1 Availability of Land

Many factors contribute to determine the supply of land available to be developed and the demand for land. The combination of these two produces a market price for land. The rising cost of land has been primarily due to the tourist and seasonal nature of the Vineyard. Second-home buyers are able to outbid many year-round residents causing a sharp increase in real estate values. The potential supply of home lots is also constrained by the minimum 3-acre lot size requirement for most of the town. Successful land conservation during the 1980's and 1990's – while helping to preserve natural and cultural community character and values – has also reduced the supply of land that might be developed.

1.2.2 Drinking Water and Wastewater

Currently the town of Chilmark does not have a town water system or a sewer system. Except for Menemsha, development within the town of Chilmark has consistently been at a low density. The private Menemsha Water Company operates a small water supply system in Menemsha serving 25 year-round customers and expanding to 78 accounts in the summer. This includes 69 homes and 10 commercial accounts. Due to its small size, it is classified as a non-community system. The probability of the town (or any other entity) installing a water or sewer system elsewhere is highly unlikely due to the high cost of installing these systems and the lack of a development density that requires these services.

At current zoning density, future growth and development within the town of Chilmark may not be limited by the requirement to install a private well for development; however, nitrogen loading is a serious concern particularly within some of the watershed districts and nitrogen sensitive areas of the town. If the Town were to consider allowing increased density for the purposes of affordable housing, for example, nitrogen loading could be a development constraint.

Although many developable lots are restricted to a development density of one bedroom per 10,000 square feet of lot area, the 3-acre minimum lot size in Chilmark means that the stricter limit based on the number of bedrooms generally only comes into play for smaller, pre-existing lots. If developable lots are located within wetlands or nitrogen sensitive areas, there are further limits to the development's size and density. In addition to stricter regulations that could require advanced de-nitrification systems, the installation cost and maintenance of these systems can be a financial constraint to the development of affordable housing.

Potential Development in Watersheds of Nitrogen-Sensitive Great Ponds

| Pond | Percentage of Entire Watershed "Available" for Development | Percentage of Watershed's "Available" Land Within Town | Percentage of Town's "Available" Land Within Watershed | Proportion of Town's Potential Additional Lots Within Watershed | Number | % |
|---------------------|--|--|--|---|--------|---|
| Lower Chilmark Pond | 44.1 | 100.0 | 9.4 | 133 | 9.9 | |
| Squibnocket Pond | 32.7 | 15.4 | 1.4 | 15 | 1.1 | |
| Tisbury Great Pond | 27.2 | 41.1 | 28.5 | 404 | 30.1 | |
| Upper Chilmark Pond | 47.2 | 100.0 | 21.2 | 285 | 21.3 | |

Source: 2002 EOE Buildout Study; MVC

1.3 PLANNING CONTEXT

1.3.1 The Island Plan - Martha's Vineyard Regional Plan

In 1991, the MVC published the Regional Island Plan, the result of several years of concerted community effort. It sets out a series of policies for growth management. Following the publication of the Island Plan, the MVC published a series of action plans outlining specific policies and a series of actions for implementing them. These plans are:

- Open Space Action Plan – 1991
- Economic Base Study – 1994
- Martha's Vineyard Housing Report – 1994
- Island Transportation Plan – 2003

The goals and strategies of the Island Plan have continued to guide the MVC, both in pursuing planning activities and in deciding on development proposals.

1.3.2 The Chilmark Master Plan

Chilmark's current Master Plan was adopted in April 1985, having been prepared by the joint venture of the Chilmark Planning Board, the Chilmark Conservation Commission, and the Martha's Vineyard Commission. This version included the Town's Open Space Plan. The Master Plan has been revised twice since then, in 1990-92 and in 2000-03. The latest update includes reflects the results of a questionnaire carried out in June 2002.

1.3.3 The Chilmark Open Space and Recreation Plan

The Chilmark Open Space Plan and Recreation Plan 1996 Update was prepared and adopted by the Chilmark Conservation Commission.

1.3.4 The Buildout Study

In 2002, the Commonwealth's Executive Office of Environmental Affairs released its studies of each town's potential capacity to accommodate additional growth and development. The 'Buildout' study categorized all of the town's land as developed, permanently protected open space, or developable – potentially available for development. EOEA relied on the MacConnell Land Use identification of land cover from aerial photography to determine developed areas and used the Division of Conservation Services records of permanently conserved lands. Land neither developed nor conserved was considered potentially 'developable.' From the town's existing land use zoning codes underlying the developable lands, and considering the lot density of properties subdivided over the 1990s, EOEA calculated the number of additional homes that could theoretically be built on the remaining developable land in the town. The town's zoning bylaws were also used to identify areas that had partial constraints on the development of lands, such as buffers to wetlands. Once the number of new residential units was estimated, projections of the increases in year round and seasonal populations – and their impacts upon schools, roads and solid waste – were also calculated.

Buildout Study Projections

| Town | AQ | CH | ED | OB | TI | WT | Island |
|---|--------|----------------|-----------|---------|---------|---------|------------------|
| Households (seasonal & year-round) | | | | | | | |
| 1990 | 82 | 953 | 3,053 | 3,172 | 2,387 | 1,320 | 10,967 |
| 2000 | 141 | 1,409 | 4,360 | 3,820 | 2,720 | 1,849 | 14,299 |
| Additional Projected | 265 | 1,341 | 2,316 | 820 | 1,001 | 1,289 | 7,032 |
| Buildout Total | 406 | 2,750 | 6,676 | 4,640 | 3,721 | 3,138 | 21,331 |
| Population (year-round) | | | | | | | |
| 1990 | 201 | 650 | 3,062 | 2,804 | 3,120 | 1,704 | 11,541 |
| 2000 | 344 | 843 | 3,779 | 3,713 | 3,755 | 2,467 | 14,901 |
| Additional Projected | 194 | 889 | 1,937 | 768 | 1,370 | 1,692 | 6,850 |
| Buildout Total | 538 | 1,732 | 5,716 | 4,481 | 5,125 | 4,159 | 21,751 |
| Students | | | | | | | |
| 1990 | 37 | 53 | 473 | 422 | 440 | 432 | 1,857 |
| 2000 | 48 | 120 | 569 | 664 | 571 | 483 | 2,455 |
| Additional Projected | 27 | 126 | 292 | 172 | 475 | 331 | 1,423 |
| Buildout Total | 75 | 246 | 861 | 836 | 1,046 | 814 | 3,878 |
| Water Use (thousands of gallons/day) | | | | | | | |
| 2000 | 25,800 | 63,225 | 789,000 | 857,000 | 609,000 | 185,025 | 2,529,050 |
| Additional Projected | 25,835 | 117,846 | 821,960 | 86,137 | 780,805 | 385,759 | 2,218,342 |
| Buildout Total | 51,635 | 181,071 | 1,610,960 | 943,137 | 780,805 | 570,784 | 4,138,392 |

Source: EOEa Buildout Studies, 2002, adjusted for corrected calculations by MVC, 2004

The purpose of the Buildout study was to prompt each of the Commonwealth's municipalities into re-evaluating whether its current zoning controls give the kind of direction to its pattern of development that is appropriate and to assess whether the town wishes to take steps to better direct future development and conservation of open space. While there may be questions about some of the specific assumptions and methodology of the Buildout studies, the overall premise is sound, namely having a community take stock of the lands that remain open to either development or conservation and having the community determine what are the best uses of those lands from a community standpoint. This was the impetus to conduct this Community Development Plan

1.4 COMMUNITY DEVELOPMENT PLANNING PROCESS

In April 2003, the Commonwealth of Massachusetts awarded grants – under Executive Order 418, the Community Development Planning Program – to each of the six towns of Martha's Vineyard. The grants allowed the towns to prepare Geographic Information Systems (GIS) mapping to aid in the evaluation of land suitability that will help to plan for appropriate growth management within each town. The Martha's Vineyard Commission worked with the Towns to obtain these grants and was selected by each town as its consultant to conduct the planning work

and assist in completing its Community Development Plan. Working with all six Island towns simultaneously, the MVC staff was able to develop a single methodology for determining land suitability, thereby facilitating comparable analysis on lands adjacent to another town's boundaries, as well as coordination of future Island-wide planning efforts.

In evaluating the best or most appropriate uses of the town's remaining land that is not yet either developed or protected as open space, the Community Development Plan was required to address three areas:

1. Open Space and Natural Resource Protection,
2. Housing, and
3. Economic Development.

The housing and economic development elements were required to address specifically improving the conditions and opportunities of low, moderate and middle-income families and individuals. A fourth required area, transportation, was waived for all Island towns due to the MVC's 2003 updating of the Regional Transportation Plan for Martha's Vineyard.

The breadth of issues addressed in developing a Community Development Plan also provides materials a town can apply to other planning efforts such as the town's Affordable Housing Strategy, the update of a town's Open Space & Recreation Plan, and the possible preparation or updating of a town's Master Plan, as well as updating the Martha's Vineyard Commission's Regional Island Plan. Towns with approved CD plans receive bonus points for competitive state grant programs, including the popular self-help grants. Also, the process allows the updating of town records and the provision of digital maps and a database available to all town departments.

In the early Fall of 2003, a series of meetings was held with representatives of Town boards. The land use/development goals and policies from existing Town plans were reviewed, and the majority of them were affirmed to still be appropriate enough to proceed with the CD planning effort. Also, project goals, assumptions and suitability criteria were identified.

In addition, the planning effort benefited from a series of meetings of All-Island Planning Boards at which various aspects of the plans were discussed. On May 18, 2004, a public meeting was held as part of a Board of Selectmen's meeting at which the preliminary results of the Community Development Planning effort were outlined and feedback was given. The results of these efforts have been incorporated in the final version of this plan.

1.5 METHODOLOGY FOR DETERMINING SUITABILITY

The basis of the Community Development Planning effort is organizing and, in some cases, updating pre-existing information for the town in Geographic Information Systems (GIS) format, that is, as computerized maps reflecting information that is easily manipulated and updated. Existing maps were compiled and reformatted. They were also checked for accuracy as much as possible. In addition, a limited amount of data gathering was carried out, notably the preparation of a Scenic Value layer for the town.

A major focus of the effort was a series of suitability analyses, i.e. the preparation of a series of maps that indicate the suitability of various areas for each of the three functions – open space and natural resource conservation, housing, and economic development – based on a number of criteria chosen by the steering committees and at several joint meetings of the Island’s planning boards. All the steering committees agreed to use the same set of criteria for all Island towns in order to facilitate getting an Island-wide analysis and perspective. Thus, some criteria do not apply or are of less importance to some towns (e.g. “served by Town sewer” in Aquinnah or “working farm” in Oak Bluffs) but are retained for all towns to maintain consistency.

Each of the criteria was given a point value between 2 and 20, based on how significant it was in determining the suitability of a given piece of land for the land use function under consideration. For example, a working farm was given a value of 20 for open space preservation whereas being within 1000’ from year-round shopping was given a value of 8 for housing development.

The next step was to prepare a map for each land use function that compiled the overall rating, combining all the criteria that applied to that function. The result was the overall suitability of using land for that function, based on those criteria and weightings. The specific criteria and weightings are described in their respective chapters.

Subsequently, the housing and economic development maps were combined to give an overall “development” map and then this map was combined with the open space preservation map to indicate which parts of the Island are most suitable for preservation, for development, or for both. This synthesis is described in more detail in section 6.

It is important to note that each of the suitability maps does not take into consideration the present zoning, the present ownership, or how the land rates for other types of suitability. For example, an area may be indicated as “suitable for economic development” merely because it is close to an existing commercial area, even though it is not presently zoned for business and it might also be very highly suitable for open space preservation. This does not suggest that the Town should change its policy to allow for commercial development in this area.

Note that the suitability maps and the plan itself are not zoning maps, nor do they impose any restriction on either landowners or Town decision makers. The plan and maps are one assessment of the suitability of land for different uses based upon certain assumptions and goals. As any of these assumptions or goals change, likely so would the conclusions. Indeed, as the Island communities continue to work with the mapped data and increase their understanding of the implications and potential limitations of the information, the weighting of individual data layers is expected to change. It is even likely that, over time, whole data layers may be dropped from or added to the suitability analysis.

With that said, it is also important to underline the limits of this kind of planning effort.

- On Martha's Vineyard, available land is so scarce and property values are so high that decisions on acquisition, say for open space preservation or the creation of affordable housing, will probably depend more on opportunity than on suitability. That is, if a piece of land is available, it might well make sense for a town or another entity to use it for open space or for affordable housing, even if it does not rate in the highest category in the suitability analysis.
- This large-scale analysis is very useful to give an overview for the town and the Island for planning purposes; however, it is not accurate enough to provide specific information about a particular parcel of land.

Notwithstanding the limitations of the methodology for evaluating the suitability of land on Martha's Vineyard for different land activities, the suitability maps provide an additional tool available to citizens and decision makers when evaluating existing circumstances and potential development in their communities.

1.6 MAPS OF EXISTING CONDITIONS

This section is completed with a series of maps of existing conditions in Aquinnah, namely:

- Existing Settlement,
- Land Use Cover,
- Water Resources,
- Wetlands
- Habitat
- Soils,
- Slopes,
- Cultural Resources
- Developed, Protected and Available Land

2. VISION

The 1985 Master Plan states the following general goal with respect to growth and development:
Retain Chilmark's small-town community and way of life, its rural character, and its natural resources.

A community visioning effort carried out in 1997 identified the following top seven priorities in the Chilmark.

- Purchase of land and development rights.
- Access to all beaches for residents.
- Public transportation and parking.
- Road preservation and preservation of rural character.
- Cap trophy house size.
- More year-round affordable housing.
- Capital improvements and community facilities plan.

The 2000-2003 plan update contains the following discussion with respect to growth and development.

Although many townspeople are concerned about the consequences of present growth patterns, methods of controlling growth are limited. There are really only two direct methods: changes in the zoning by-laws or the removal of land from development through purchase or conservation restrictions.

Various types of building moratoria have been upheld by the courts. They provide only temporary delay, curtailing building for a limited period while towns explore options for handling excessive growth. Chilmark has adopted a building cap that limits the annual number of new housing starts to 18, with additional allowances for two "youth lots".

Since the Master Plan of 1985, zoning by-laws have been augmented and changed to further promote responsible community planning and building. These restrictions include the above-noted building cap, an increase in the required building set backs, limits to the size of building alteration close to wetlands and ponds, and a by-law delaying the building of guest houses. There have also been restrictive covenants resulting from conservation land purchases. While these actions are important, it remains essential for Chilmark to be ever alert to additional possibilities for planning controls.

Future planning concerns also include attaining a more diversified demographic configuration, which can be achieved by making lots and/or housing available for moderate-income families, youths and the elderly.

3. OPEN SPACE AND NATURAL RESOURCES

3.1 PROFILE

Despite the distinct physical characteristics and different patterns of land use, the people of the six towns of Martha's Vineyard share a deep appreciation for the natural beauty of their surroundings and the connection between the Island's open, undeveloped spaces and water quality, habitat protection, scenic vistas, recreational opportunities and access, and overall enjoyment of a unique quality of life. In addition to notable efforts by the six towns, the Vineyard is graced with private conservation organizations, both local (Sheriff's Meadow Foundation, Vineyard Conservation Society, Vineyard Open Land Foundation) and Mainland-based (Trustees of Reservations and The Nature Conservancy). Over the decades, the vision and dedication of these organizations have resulted in the successful protection of especially choice parts of the Island.

The creation and implementation of the Martha's Vineyard Land Bank Commission illustrates the breadth of this appreciation among Islanders and citizens of each town. Established by the Commonwealth in 1986, the Land Bank uses funds generated from a surcharge on each transfer of real estate for the purpose of acquiring, holding and managing land and interests in land such as (a) land to protect existing and future well fields, aquifers and recharge areas; (b) agricultural land; (c) forest land; (d) fresh and salt water marshes and other wetlands; (e) ocean and pond frontage; beaches, dunes, and adjoining backlands, to protect their natural and scenic resources; (f) land to protect scenic vistas; (g) land for nature or wildlife preserves; (h) easements for trail and for publicly owned lands; and (i) land for passive recreational use. Through 2003, the Land Bank had preserved 2,275 acres, complementing the efforts of the other conservation groups. The Land Bank is an effective tool for towns to target and realize their open space objectives.

The visual character of each of the six towns of Martha's Vineyard is distinct. On a small scale, the down-Island towns are the "cities and their suburbs", while the less populous, less commercial up-Island towns are the "countryside". The Island's geography and history created the contrasts between its more settled seaport towns and its farming communities. While open space is necessary for all six towns, it is especially important up-Island, in order to maintain the visual diversity of Martha's Vineyard.

The rural character of Chilmark is one of the town's most valuable natural resources. Over the years, diligent efforts have been made to retain and protect this resource through the use of three-acre zoning and the encouragement of the gift or sale of property to private conservation organizations or to the Martha's Vineyard Land Bank. The granting of conservation restrictions and agricultural restrictions also has helped to maintain open spaces. In some cases subdivision developers have set aside common lands that are then protected from further development, but

only for thirty years. As the supply of developable land decreases, the pressure on the remaining undeveloped land increases, and so does the need to protect the remaining open spaces quickly.

The conserved area represents about 21% of the total area carried on the tax records of the town (2,302.1 of 11,162.1 acres, not including ponds and roads). It must be recognized, however, that whereas the land owned by the Land Bank is permanently protected and cannot be sold, much of the land held by conservation organizations is not permanently protected. This land could be sold by those organizations or taken by eminent domain proceedings unless protected by a conservation restriction held by a separate group and accepted by the Commonwealth. Likewise, some of the conservation restrictions held by the town have not been formally accepted by the Commonwealth of Massachusetts and are therefore limited to thirty years unless they are reestablished. The same applies to virtually all the subdivision restrictive covenants. They expire at the end of every thirty years unless approved again by the members of the subdivision and filed at the registry of deeds. The importance of conservation to voters and non-voting residents alike was emphasized in the 2002 Questionnaire where eighty-eight percent and eighty-four percent respectively believed there was a public benefit to agricultural or conservation restrictions on private land. Ninety-five percent and ninety-one percent respectively were in favor of the purchase of land or development rights for agricultural or conservation purposes.

3.2 SUITABILITY ANALYSIS

The following are the criteria used in the Open Space and Natural Resources suitability analysis using the methodology described in section 1.3.

1. **Agricultural Land:** Working Farm, Prime Agricultural Soil
2. **Water Resources – Coastal and Surface Water:** Proximity to Wetlands and Flood Hazard Area; Coastal District; Surface Water Bodies
3. **Water Resources – Groundwater:** Zones of Protection Around Public Wells; Nitrogen-Sensitive Watersheds
4. **Habitat and Woodlands:** Core and Supporting Habitat; Other Large, Unfragmented Woodlands;
5. **Scenic and Cultural:** Viewsheds and Vistas from Island Roads; Cultural Landscapes
6. **Recreation and Access:** Beaches

On the following pages, each of these criteria is mapped for the town as well as the entire Island, accompanied by an explanation of the criteria and how they were used in the suitability analysis.

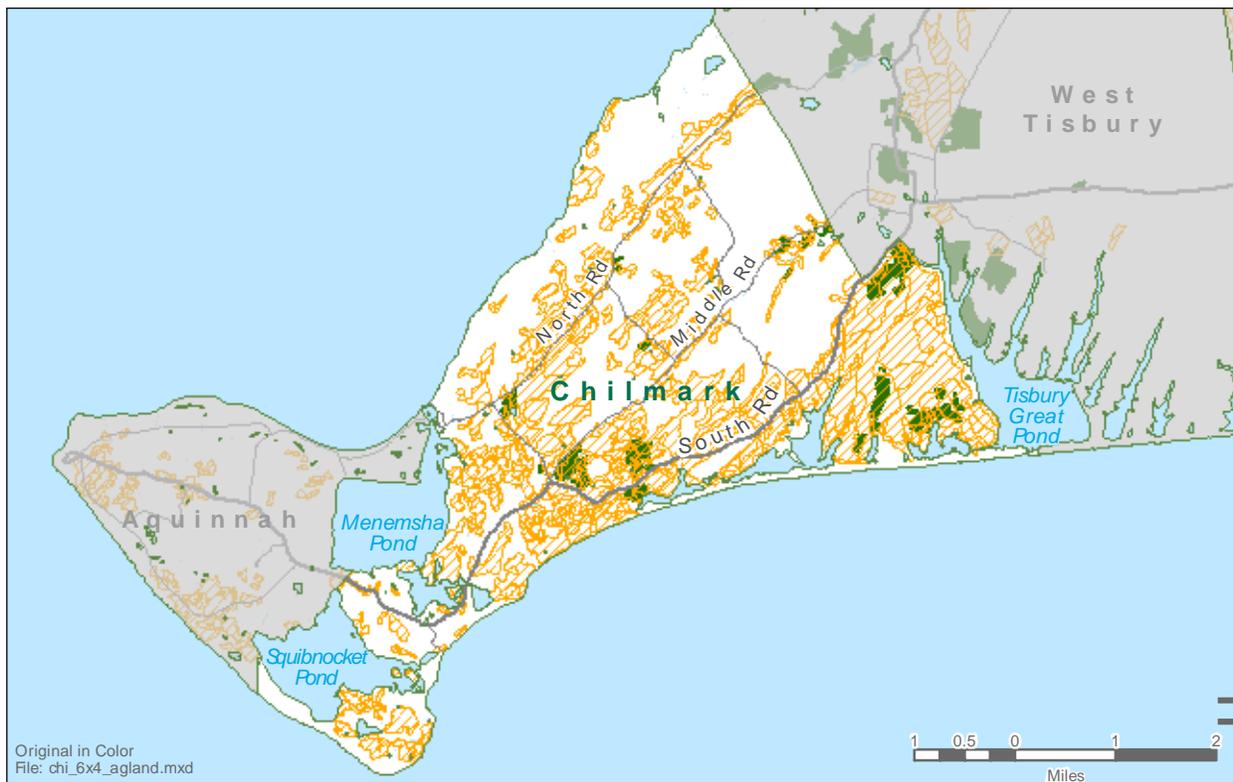
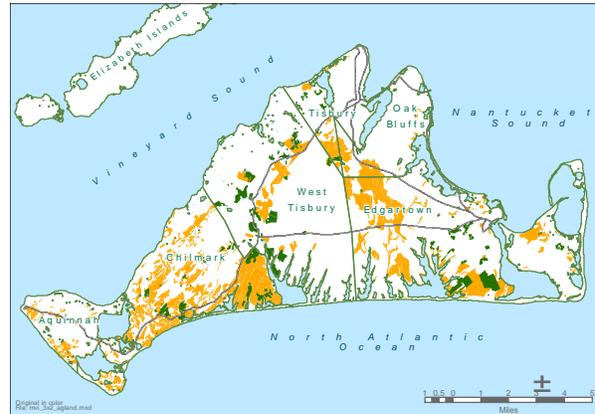
The results of the analysis are in section 3.2.7.

3.2.1. Agricultural Land

Although representing just a fraction of the land from previous generations, many areas of the Vineyard are still strongly associated with farming. Farming represents scenic, economic and cultural sensibilities. The selection of these criteria reflects the desire to preserve the remaining working farms and to provide for the possibility for prime agricultural land to be returned to farming.

| Criteria for Open Space Suitability Agricultural Land in Chilmark | | |
|--|--------|-----------------|
| Criterion | Points | Area (acres) |
|  Working Farm | 20 | 22 |
|  Prime Agricultural Soils | 6 | 44 |

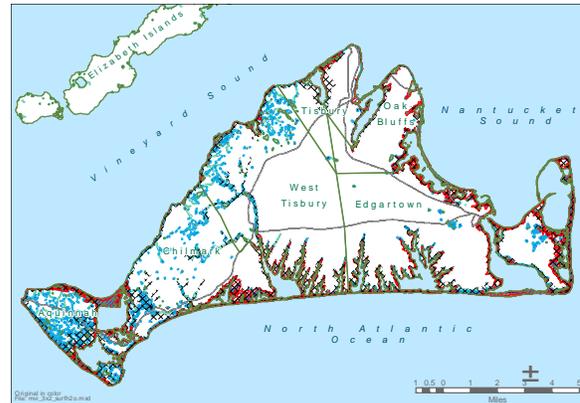
Source: Farms - MassGIS (1999 ground cover] and MVC 2004;
Natural Resources Conservation Service / Mass-GIS
2003 and West Tisbury Steering Committee



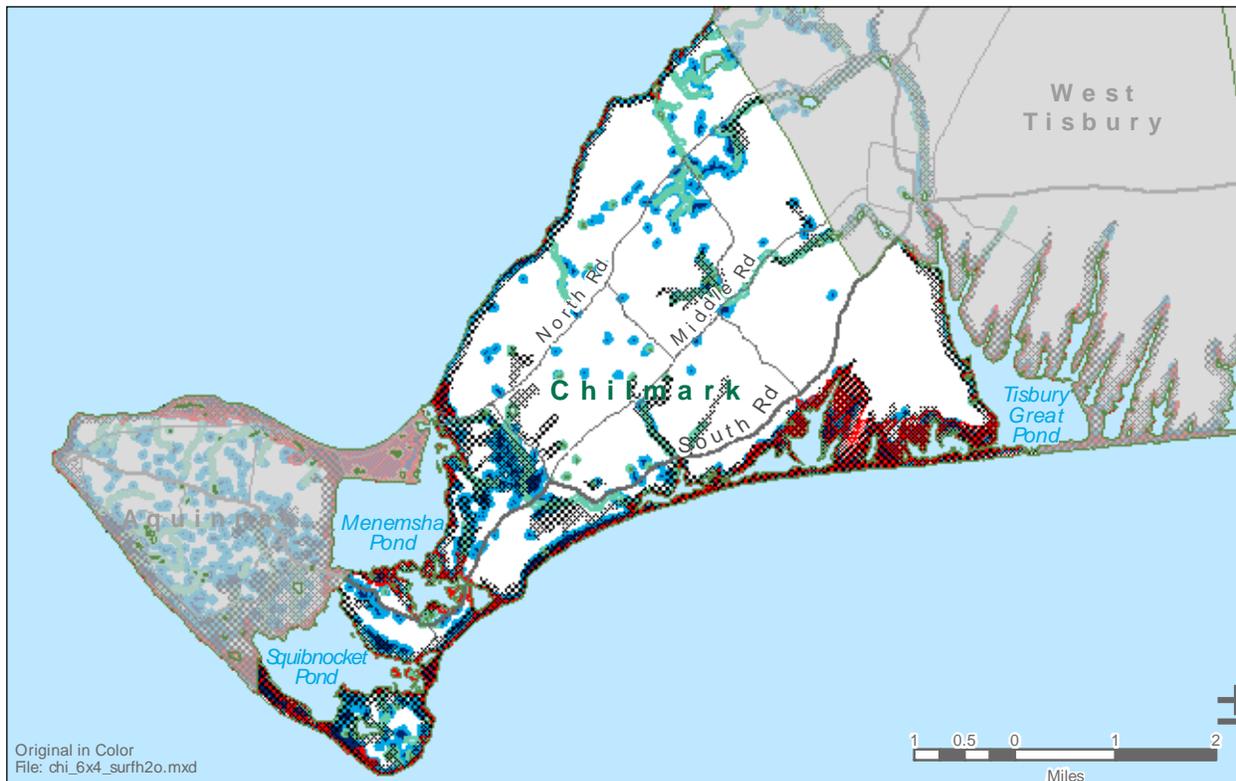
3.2.2. Water Resources – Coastal and Surface Water

The presence of the ocean, ponds or streams makes land more desirable for preservation as open space, both from ecological (water quality, habitat) and cultural (scenic, recreational) perspectives. Wetlands may not be built on, but they and the adjacent areas also offer resources of interest for preservation of open space or natural resources. Similar considerations apply to ponds and streams and their adjacent areas. The Coastal District of Critical Planning Concern identifies the natural areas along the sea’s edge, great ponds and their tributaries. Higher weighting was given to the criteria that were most restrictive to development.

| Criteria for Open Space Suitability Coastal and Surface Water Resources | | |
|--|--------|--------------|
| Criterion | Points | Area (acres) |
| Wetlands | 20 | 944 |
| Within 200' of wetlands | 6 | 3,873 |
| Flood Hazard Area | 10 | 1,139 |
| Coastal DCPC | 8 | 3,188 |
| Surface water | 20 | 1,375 |
| Within 200' of surface water | 6 | 2,104 |



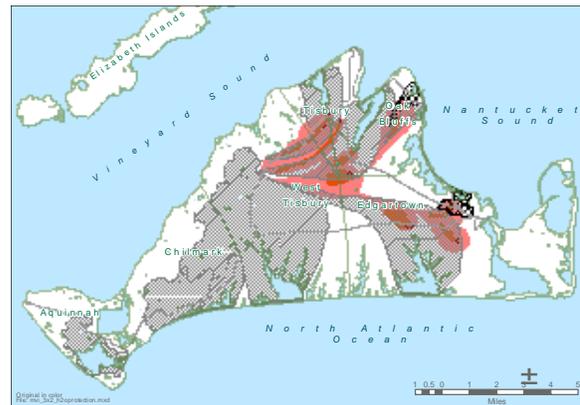
Source: DEP/MassGIS 2003; FEMA/MassGIS 1997; MAPC 2000; MassGIS 2003



3.2.3. Water Resources – Areas of Protection

Development places stress on groundwater resources and, ideally, would be located outside areas highly sensitive to ground water contamination. Preserving lands within the areas of protection of public wells – Zone I, operational zone of influence, and Zone II – protects public health as well as public investment in infrastructure. The operational zones of influence were determined by the MVC as areas more likely to infiltrate to groundwater than the rest of Zone II. The vitality of the Island’s great ponds also affects human health, but also involves habitat, cultural, scenic and recreational values. Identified are the pond watersheds that are already at or beyond nitrogen limits, or are projected to reach those limits.

| Criteria for Open Space Suitability | | |
|--|--------|--------------|
| Groundwater Resource Protection | | |
| Criterion | Points | Area (acres) |
| Public well – Zone I | 20 | 0 |
| Public well – operational zone of influence | 6 | 0 |
| Public well – Zone II | 4 | 0 |
| Pond watershed at or beyond nitrogen limit | 6 | 6,812 |
| Pond watershed projected to reach nitrogen limit | 4 | 0 |



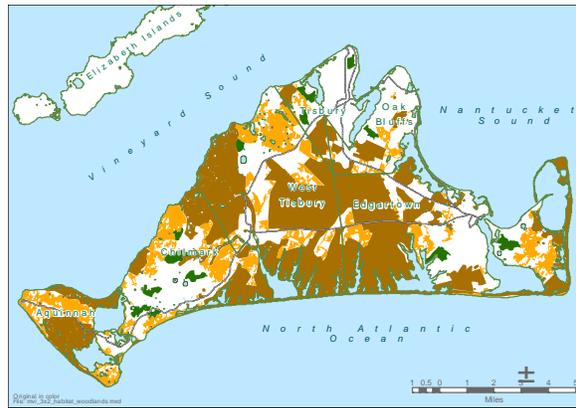
Source: DEP/MassGIS 2003; MVC 2003



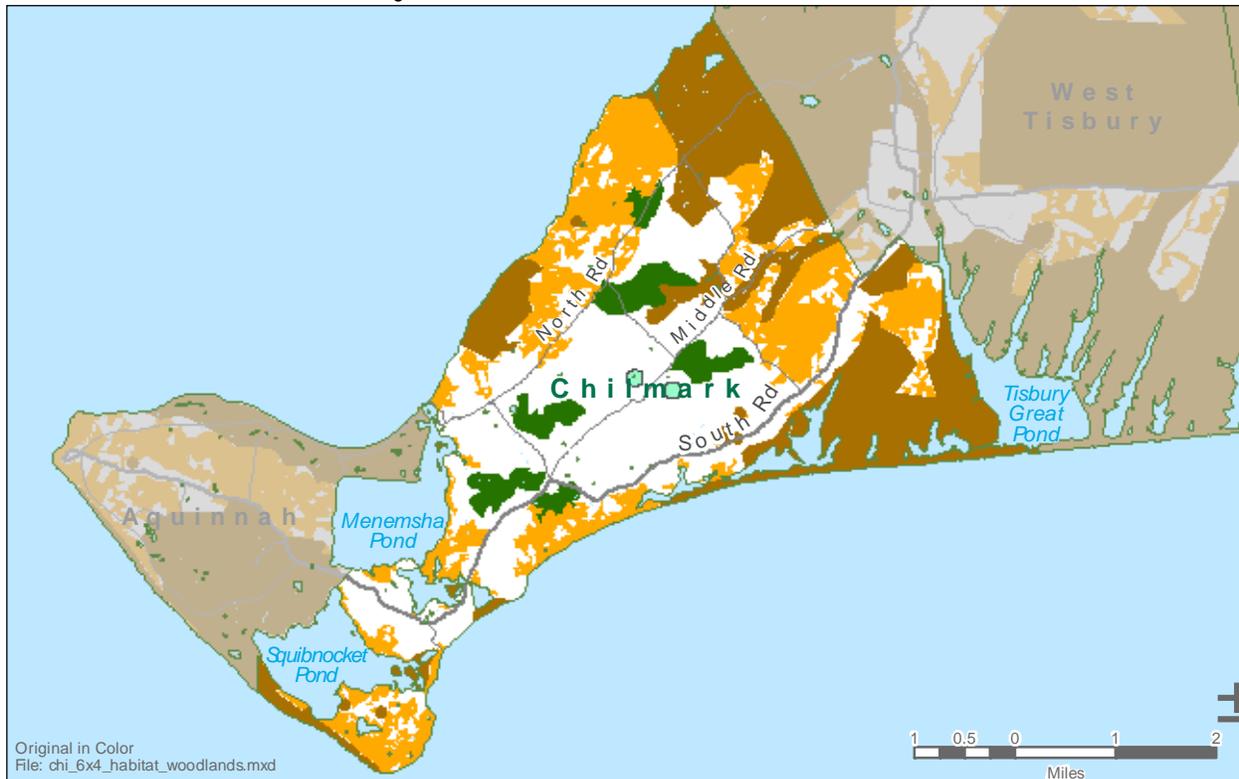
3.2.4. Habitat and Woodlands

Martha's Vineyard is the site of some globally important habitats such as the distinctive sandplains. This is evident from the extent of significant "core" and supporting habitat. In addition, large unfragmented woodlands not already included in the habitat criteria are identified because they may still be potentially important open spaces from a scenic or recreational standpoint. Core and Supporting Habitat are areas identified by the Commonwealth that provide habitat for several species that are Endangered, Threatened, or are of Special Concern, including the Harrier Hawk and various types of moths.

| Criteria for Open Space Suitability Habitat and Woodlands in Chilmark | | |
|--|--------|--------------|
| Criterion | Points | Area (acres) |
| Core Habitat | 10 | 3,956 |
| Supporting Habitat | 6 | 2,738 |
| Additional Unfragmented Woodland (50+ acres) | 8 | 660 |
| Additional Unfragmented Woodland (10-50 acres) | 4 | 28 |



Sources: Habitat - Natural Heritage/MassGIS 2002
Woodland - MacConnell 1999 ground cover



3.2.5. Scenic/Cultural

The character of the Island is derived to a great extent by how it looks from public spaces, including major roads and the water. A preliminary identification of views from the main Island roads includes:

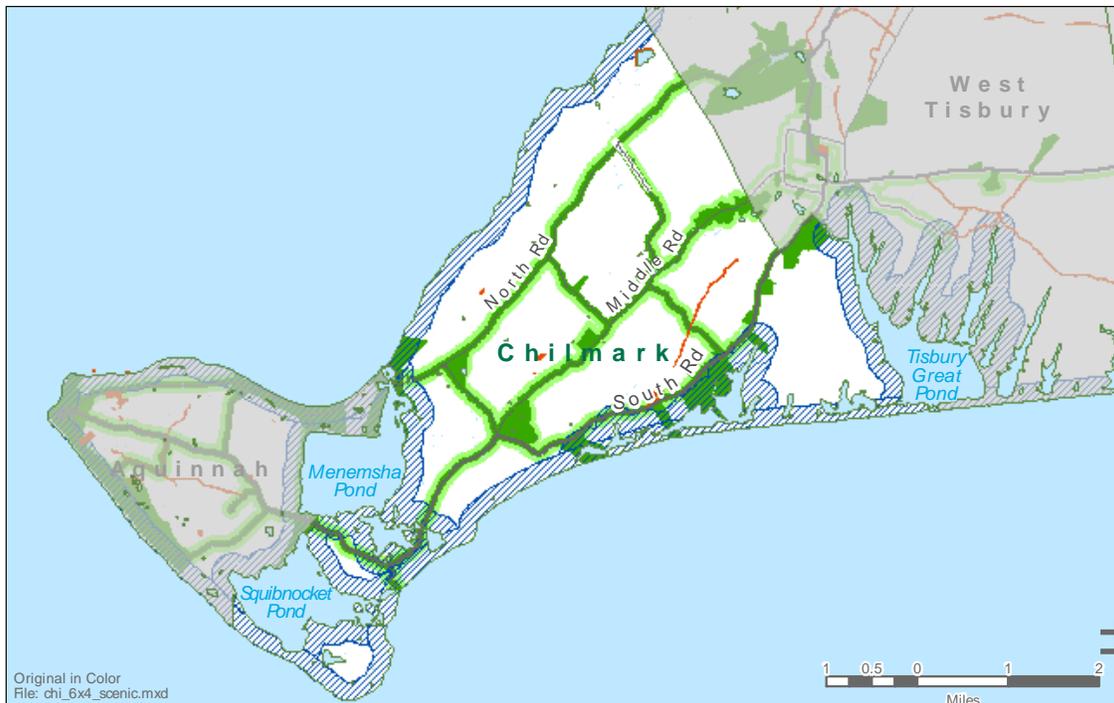
- wooded areas within 200' from roads as well as adjacent fields and ponds;
- larger vistas from public overlooks and particularly scenic roads and,
- the axis of view corridors at the ends of certain roads.

A secondary buffer area, generally an additional 300' from roads, was also identified as was the coastal viewshed made up of land within 1000' from the coast and of other navigable waters. Also included are cultural landscapes that towns have previously designated as Special Places. This analysis in particular will likely be subject to future refinement by the towns and MVC.

| Criteria for Open Space Suitability Scenic/Cultural in Chilmark | | |
|---|--------|--------------|
| Criterion | Points | Area (acres) |
|  Primary Vista/Viewshed | 20 | 1,756 |
|  Secondary Vista/Viewshed | 4 | 1,368 |
|  Cultural Landscape | 20 | 64 |
|  1000' from Coast/Great Pond | 6 | 3,144 |



Sources: Viewsheds - MVC/Steering Committees 2004
Cultural landscapes - Town DCPCs/MVC 2004



3.2.6. Recreation and Access

In addition to their indispensable role of buffering the Island (and Great Ponds) from the sea, beaches are, understandably, the most used recreational spaces on the Vineyard. Public access to beaches varies greatly among towns but is generally less available to the public up-Island (where there are also fewer people). Other existing recreational areas such as golf courses and ball fields should be mapped in the future. Mapping the bike paths and walking trails would help identify gaps in the town and Island-wide network of trails and paths.

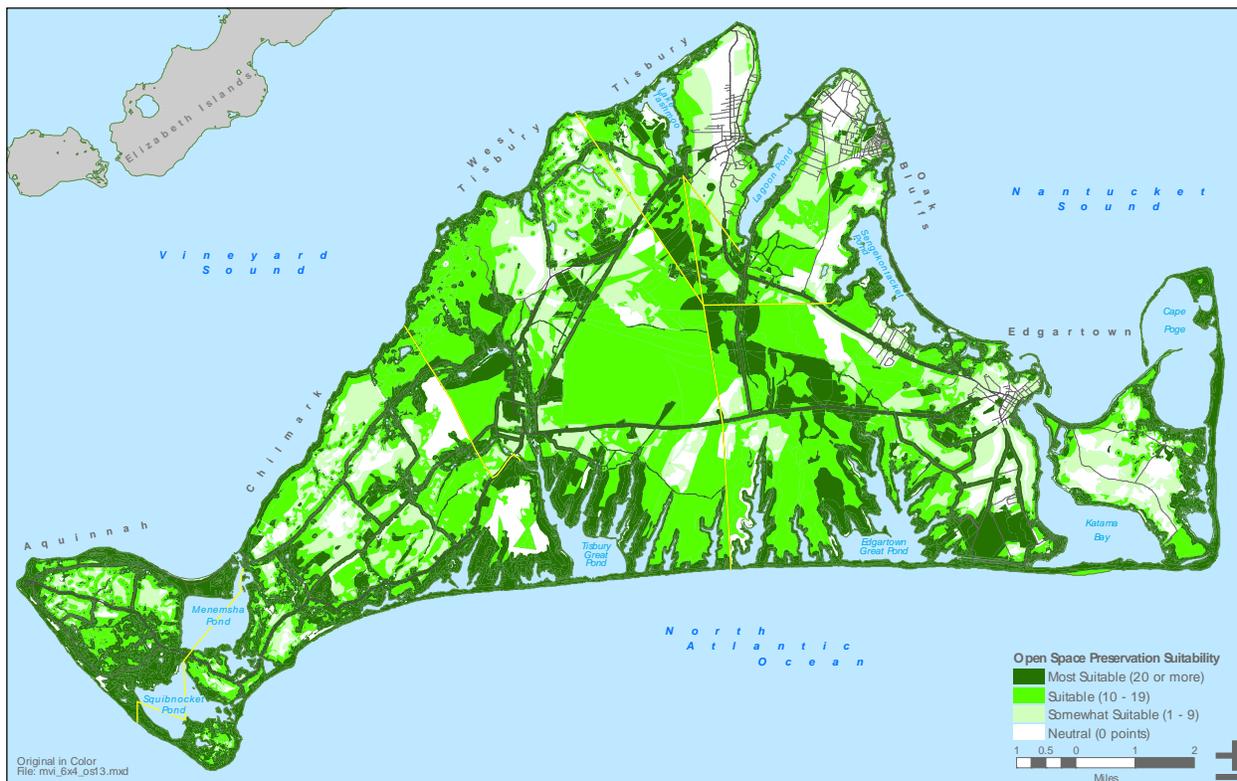
| Criteria for Open Space Suitability Recreation and Access in Chilmark | | |
|---|--------|-----------------|
| Criterion | Points | Area (acres) |
|  Beach | 20 | 234 |

Sources: MacConnell 1999 ground cover



3.2.7 Open Space and Natural Resources Suitability Map

The maps below and on the following page show the overall suitability of land for preservation of open space and natural resources based on a combination of the criteria described in this section. Land across the Island was divided into four categories based on the total 'points' accumulated from all the mapped features. In illustration, the higher intensity of color or shading reflects a higher degree of suitability, according to the criteria measured and the weighting of values. Lands on the town map that are already preserved or developed are overlaid with a diagonal crosshatch.



On Martha's Vineyard as a whole, the map indicates that lands close to the ocean are particularly important to preserve as open space. In general, there is a narrow beach or bluff that serves as storm damage prevention for the interior wetlands and built areas, as recreation, scenic vistas, and in some cases, habitat. Serving a variety of functions, these areas tend to score highly when points are summed. On the map below, these areas tend to appear as colored the darkest green, the equivalent of a high score. These shore areas form a relatively narrow fringe, extensive in total area only because they surround the entire Island. The scenic vistas afforded by the rural roads constitute another narrowly focused resource, extensive in total area only because of the extensive length of this grid network. Working farms and prime agricultural soils constitute very little of the total area of the Island. Much more extensive in area are the habitat and water resource areas. Core habitat, primarily in the form of the globally rare sandplain grassland,

covers much of the total area of the Island. The watersheds of the great ponds cover large land areas. Many of the great ponds are projected at or near their nitrogen loading limits, and lands within those watersheds are targeted for open space protection. Zones of contribution for public water supplies cover large areas of lands in the down-Island towns and also in West Tisbury, although that town does not pump for its own municipal water service.

Within Chilmark, working farms and, to a lesser degree, prime agricultural soils, emerge as having high suitability for open space preservation. Chilmark’s beaches are noted, for scenic values, recreation and flood protection. Numerous roads are marked for the scenic vistas afforded by those rural ways. Larger land areas include the watersheds of several of the great ponds; Squibnocket Pond, Chilmark Ponds and Tisbury Great Pond. The waterfront areas of all the ponds are marked, including the less nitrogen-challenged Menemsha Pond. All the pond waterfronts serve for recreation and for scenic vistas, regardless of the needs of the larger watershed.

| Open Space and Natural Resource Protection Suitability | | |
|---|--------------------------|----------------------------|
| | Martha's Vineyard | Chilmark |
| Most Suitable | 23,722 acres (40.4%) | 5,626 acres (45.2%) |
| Suitable | 20,267 acres (34.5%) | 3,761 acres (30.2%) |
| Somewhat Suitable | 9,500 acres (16.2%) | 1,753 acres (14.1%) |
| Neutral | 5,205 acres (8.9%) | 1,293 acres (10.4%) |

It bears repeating that, in Chilmark as on all of Martha's Vineyard, virtually all land has some degree of suitability for open space preservation – whether for environmental, health, economic or cultural reasons. Due to the scarcity and extraordinary cost of land on the Vineyard, the decision to preserve a particular piece of land will likely be based far more on opportunity than on suitability; in other words, if a parcel of land becomes available, it might well be worth preserving as open space, even if it has not rated highly in this suitability analysis.

3.3 ORIENTATIONS

The goals and objectives in this section are derived from the Town's current Open Space and Recreation Plan and the Master Plan, with some refinements derived from the Community Development Planning process. Note that this section includes the recreation goals and objectives (specific goals 10-19) in that many of them have an impact on open space and natural resource protection.

3.3.1 General Goals

Open Space and Natural Resource Protection

1. To Preserve and Improve Roadside Vistas
2. Protect Groundwater Supplies
3. Reduce Coastal Erosion
4. Protect Ponds, Fish and Shellfish
5. Protect Wetlands and Watersheds
6. Preserve Farms
7. Decrease Dependence on Off-Island Resources
8. Preserve and Expand Trail Systems
9. Preserve Wildlife Habitats
10. Protect and Enhance Historic Sites
11. Preserve Certain Large Properties Before they are all Subdivided

Recreation

1. Provide for the public enjoyment of Chilmark's unique natural environment through appropriate passive recreational opportunities, and
2. Provide, within reason, for active recreational opportunities to promote the health and well being of its citizens.

3.3.2 Specific Goals and Objectives

Goal 1: Preserve Open Space:

- Encourage landowners to protect open spaces.

Objectives:

- Endeavor to ensure that thirty-year conservation restrictions are renewed prior to their expiration, by reviewing restriction documents held in the town hall and putting the termination/renewal dates on a schedule, which is maintained as new restrictions are received.
- Conservation restrictions that have not been accepted by the Executive Office of Environmental Affairs should be reviewed and should be submitted so that the protection will be permanent.
- To insure that conservation restrictions are not violated, the listed CRs should be reviewed before building permits are issued.
- Encourage landowners to provide public access for trails across conserved land.

Goal 2: Protect the Quality and Quantity of Groundwater

Objectives

- Test, monitor, and eliminate pollution of streams and watersheds
- Encourage use of water conservation techniques. Encourage separation and recycling of solid waste.
- Teach and encourage proper disposal of hazardous materials.
- Applicants for septic systems should provide evidence to the satisfaction of the Board of Health that degraded septic effluent remains within the confines of property lines so that abutting landowners, present or future, will not be limited in their search for pure water. Encourage the Board of Health to monitor existing and future systems, especially alternative systems to ensure their effective treatment of effluent.
- Protect present or future well sites.

Goal 3: Protect Surface Waters

Objectives

- Enforce State and Local Wetland Protection Regulations.
- Monitor surface water quality,
- Work with fishermen, the towns of West Tisbury and Aquinnah as well as the Wampanoag Tribe to protect our shared great ponds.
- Supervise boats in Menemsha Harbor and Pond to prevent contamination by boating waste and fuel spills. Maintain and require use of pump-out system.
- Educate officials on oil spill contingency plan, maintain existing plan.
- Enforce existing regulations for power boats, jet skis and aircraft in ponds.
- Encourage Conservation Restrictions in the "Coastal District" (MVC overlay) and abutting inland water bodies and wetlands.
- Discourage expansion of small structures in the buffer zone.

Goal 4: Protect and Improve Fisheries

Objectives

- Manage existing shellfish beds to increase health and productivity.
- Encourage aquaculture in appropriate locations.
- Improve Atlantic fishery.

Goal 5: Preserve Wildlife Habitats

Objectives

- Identify prime wildlife habitat and acquire conservation restrictions or acquisition of these areas.
- Protect migrants and winter waterfowl
- Encourage the preservation and restoration of sandplain habitat
- Maintain a diversity of habitats within town, through a variety of vegetation.
- Maintain and create new wildlife corridors where possible (e.g. North Shore conservation lands, Mill Brook).

Goal 6: Preserve Farmland

Objectives

- Protect open fields and farms, particularly those affording views to the sea, in order to retain the rural character of the town.
- Encourage/require landowners to actively manage woodlands suited to harvest and to take advantage of Chapter 61 of the Massachusetts General Laws to reduce real estate taxes.
- Encourage small-scale, part-time farming activities including the preparation of value-added products through a reasonable inspection program for farm/commercial kitchens and provisions to allow roadside farm stands (provided traffic conditions and scenic values are not compromised).
- Enhance cooperation between farm operators and the Conservation Commission to provide reasonable buffers between farm fields and wetland areas to maximize the use of productive lands.
- Actively support the continuation of Right to Farm laws to avoid unreasonable local restrictions of agricultural enterprises.
- Encourage preservation of farms and prime agricultural soils by the Land Bank and other conservation organizations, and the active use of this land for agriculture.
- Continue to urge farm owners to consider conservation restrictions or sale of development rights.
- Encourage flexible siting for subdivisions of large farms, clustering houses in wooded areas if possible and keeping fields open.
- Encourage additional farming by making public and private open lands available, and by guarding against anti-agricultural regulations that might discourage small-scale agriculture by homeowners.

Goal 7: Preserve and Improve Roadside Vistas.

Objective

- Keep the rural character of Chilmark intact by acquiring conservation restrictions and view easements on roadsides and by removing vegetation obstructing unique roadside views, especially of stone walls and water bodies.
- Preserve stone walls.
- Screen new building in roadside district.

Goal 8: Preserve Woodlands for Sylviculture and Wildlife.

Objectives

- Manage Town-owned forest and other Town woodland for wood production.
- Compile or update inventories of significant species in Woodland habitat in town and set aside important parcels for breeding or migration.
- Inform landowners of the advantages of 61 A and encourage active management of areas suitable for harvesting.

Goal 9: Reduce erosion on Beaches and Dunes.

Objectives

- Limit human traffic on dunes and cliffs to boardwalks or other suitable crossings.
- Cooperate with other organizations to install and maintain snow fencing etc. to protect and build dunes on barrier beaches.

Goal 10: Provide adequate opportunities for Swimming

Objectives:

- As the summer population increases and the beaches in town become more and more crowded, efforts should be made to acquire additional shore property other than in Menemsha.
- Improve parking facilities at existing beaches (off-site parking and shuttle van). Discourage long-term and overnight parking in Menemsha.
- Encourage better distribution of bathing at Menemsha and alternative access to the eastern end of Lucy Vincent Beach. Improve handicap access to beaches.
- Provide opportunities for surfers.

Goal 11: Provide extensive trails for Walking and Hiking, Cycling and Horseback Riding, and Cross Country Skiing

Objectives:

- Continue obtaining trail links between conservation and public areas.
- Thank the Land Bank and other conservation organizations for managing the trails on their properties.
- Ask the Land Bank to maintain trails on Town properties where appropriate.
- Encourage landowners to give trail easements and to keep existing trails passable.

Goal 12: Provide adequate opportunities for Fishing.

Objectives:

- Improve parking at Menemsha so that fishing on jetties is accessible.
- Acquire additional access points on shoreline for fishing.
- Acquire additional access points for ponds and shellfishing.

Goal 13. Provide adequate facilities for Boating as possible.

Objectives:

- Provide launch, docking and mooring facilities for town residents.
- Seek an additional launching site with adequate parking.

- Provide alternative parking at Menemsha for boaters, with off-site parking and a shuttle bus.

Goal 14: Make Bicycling safe in Chilmark.

Objectives:

- Encourage off road bicycling on increased long-distance trails.
- Study feasibility of bike path for North Road, set away from the pavement wherever possible.
- Try to make roads safer for cycling.

Goal 15: Keep a safe environment for Horseback Riding

Objectives:

- Continue linking long-distance trails.
- Try to provide some trail for horses in conservation areas where ground conditions and inclines permit.
- Link Chilmark trails with Agricultural Hall facilities in West Tisbury.

Goal 16: Allow for safe Hunting In Chilmark

Objectives:

- Allow hunting on public conservation lands, where size and location make this appropriate.
- Increase size of public lands, to make hunting safer.

Goal 17: Provide adequate public facilities for Tennis.

Objective:

- Provide more public courts.

Goal 18: Provide playing fields for Field Sports.

Objective:

- Build a bigger field in town.
- Improve the field at Peaked Hill.

Goal 19: Maintain indoor recreation space at Community Center

Objective:

- Maintain basketball and volleyball court.
- Encourage various sports programs that use the Community Center.

4. HOUSING

The seasonal and tourist-based economy of the Vineyard has greatly affected the home rental and ownership market in Chilmark. Rapidly escalating property values have made affordable housing a critical issue for all of Martha's Vineyard and housing costs in Chilmark have traditionally been higher than in any other part of the Island. This section of the Chilmark Community Development Plan deals with the issue of housing development and especially the provision of affordable housing.

4.1. HOUSING PROFILE

4.1.1 Existing Housing Stock

| Housing Characteristics - Chilmark | | | |
|--|------|-------|-------|
| | 1980 | 1990 | 2000 |
| Total Households | 220 | 286 | 382 |
| Total Housing Units | 831 | 1,178 | 1,409 |
| Owner Occupied | 145 | 212 | 287 |
| Renter Occupied | 75 | 74 | 95 |
| Seasonal Units | 409 | 871 | 1,003 |
| Vacant Year-Round | 202 | 21 | 24 |
| Vacancy Rate for Year-Round Housing Units: Ownership | na | 2.3% | 2.4% |
| Vacancy Rate for Year-Round Housing Units: Rental | na | 1.3% | 1.0% |
| Total Units | 831 | 1,178 | 1,409 |

| Housing Characteristics - Martha's Vineyard | | | |
|--|-------|--------|--------|
| | 1980 | 1990 | 2000 |
| Total Households | 3,963 | 4,955 | 6,375 |
| Total Housing Units | 8,700 | 11,439 | 14,621 |
| Owner Occupied | 2,708 | 3,541 | 4,560 |
| Renter Occupied | 1,135 | 1,414 | 1,815 |
| Seasonal Units | 4,084 | 5,278 | 7,829 |
| Vacant Year-Round | 773 | 1,206 | 417 |
| Vacancy Rate for Year-Round Housing Units: Ownership | na | 3.6% | 1.3% |
| Vacancy Rate for Year-Round Housing Units: Rental | na | 8.7% | 3.6% |
| Total Units | 8,700 | 11,439 | 14,621 |

According to the 2000 US Census, the town of Chilmark had a total of 1,409 housing units, of which 1,359 (96%) were single-family homes. Statistically the town does not have a diversified year-round housing stock. For every six homes in Chilmark, there is one home that has a guesthouse.

Seasonality: There is about the same number of homes in Chilmark as there are year-round residents, but less than a third of the housing stock is occupied year-round. According to the 2000 US Census, the year-round to seasonal housing occupancy ratio has been consistent for the past three decades: 26% year-round occupancy in 1980, 24% in 1990 and 27% in 2000. For seasonal and tourist based communities such as Chilmark, housing occupancy is an important factor to consider when projecting future growth scenarios – particularly population projections – should the year-round occupancy ratio shift sizably in either direction.

Building Permits: The Town granted 125 residential building permits from 1998 to 2002 while a total of 575 residential building permits have been granted since 1980. In 1999, the town enacted a three-year residential build permit cap to slow down the rate of development. The construction of new homes, although limited by the building permit cap, was not greatly affected by the economic recession in 2000.

| Residential Building Permits Issued for New Construction | | | | | | | |
|---|----------|-----------------|-----------|------------|---------|--------------|--------------|
| | Aquinnah | Chilmark | Edgartown | Oak Bluffs | Tisbury | West Tisbury | Total |
| 1999 | 13 | 43 | 139 | 66 | 60 | 59 | 380 |
| 2000 | 5 | 20 | 95 | 30 | 33 | 53 | 236 |
| 2001 | 7 | 19 | 74 | 31 | 23 | 31 | 185 |
| 2002 | 4 | 16 | 93 | 29 | 26 | 33 | 201 |
| 2003 | 9 | 16 | 88 | 46 | 27 | 48 | 234 |
| Total | 38 | 114 | 489 | 202 | 169 | 224 | 1236 |

Rental Registration: The town of Chilmark does not regulate the rental of housing units. There is growing concern Island-wide for the health and safety of tenants, particularly in overcrowded housing situations. The town has not created a bylaw that would require homeowners who rent their property to register with the Town Clerk. Should they do so, the Board of Health would then determine the maximum occupancy of the property, to ensure that overcrowding of a home is prevented.

4.1.2 Impact of the Real Estate Market on Housing

From 1997 to 2003, the real estate market in Chilmark has seen the median price for a home increase from \$505,000 to \$1,487,500. Between 1997 and 2003, there was a total of 188

homes sold, of which three sold at or below \$250,000, in the town of Chilmark. According to a 2001 housing needs assessment study for Martha's Vineyard, between 2000 and 2001 the number of homes selling for less than \$200,000 dropped from 35 sales to just 9 sales. The number of homes selling for under \$250,000 dropped from 82 to 39 within the same time period.

| Median Home Sale Prices, 1997 - 2003 | | | | | | | |
|---|-----------------|--------------------|------------------|-------------------|----------------|---------------------|--------------------------|
| Year | Aquinnah | Chilmark | Edgartown | Oak Bluffs | Tisbury | West Tisbury | Martha's Vineyard |
| 1997 | \$380,000 | \$505,000 | \$192,372 | \$170,000 | \$220,000 | \$282,250 | \$205,000 |
| 1998 | \$457,500 | \$764,250 | \$225,000 | \$186,170 | \$220,000 | \$279,000 | \$231,750 |
| 1999 | \$520,000 | \$955,000 | \$275,000 | \$200,000 | \$236,750 | \$339,000 | \$260,000 |
| 2000 | \$900,000 | \$1,300,000 | \$379,000 | \$275,000 | \$292,500 | \$425,000 | \$369,500 |
| 2001 | \$962,500 | \$885,000 | \$467,500 | \$279,000 | \$350,000 | \$549,000 | \$395,000 |
| 2002 | \$1,027,000 | \$1,237,500 | \$517,500 | \$325,000 | \$357,100 | \$500,000 | \$400,000 |
| 2003 | \$1,200,000 | \$1,487,500 | \$547,500 | \$419,125 | \$432,000 | \$670,000 | \$506,013 |

Source: Martha's Vineyard LINK

The current market indicates that there is a serious gap between what the market rate home costs and what families can afford. The median household income for Chilmark was \$41,917 as reported by the US Census. According to Housing and Urban Development's income limits the median family income for a family of four was \$61,100 in FY 2003. Individuals or families earning \$61,100 could not afford a home that cost more than \$230,000 or should not pay more than \$1,530 per month on rent. According to HUD guidelines individuals or families who either own a home or rent should not pay more than 30% of their gross income for housing costs, which include taxes, principal, interest, insurance, and/or utilities if renting. The 2003 median sales price of a home in Chilmark is \$1,487,500, which amounts to an affordability gap of \$1,257,500 for a family earning \$61,100.

One aspect of the housing dynamic on the Vineyard is that year-round residents, especially first time homebuyers, are competing with second-home buyers who, due to higher incomes, are often in the position to outbid them. The same also holds true for those renting a housing unit. As a seasonal community, year-round residents renting oftentimes do not have stable year-round housing. The seasonal rental market on the Vineyard provides a lucrative opportunity for landlords to rent their homes on a weekly or monthly basis during the summer months. As a result, year-round residents renting that housing unit are given a short-term lease and are then forced to compete with vacationers and seasonal workers for summer housing at sharply higher rents. This results in the all too common "island shuffle" of having to move two or more times each year, which has physical and sociological impacts in addition to economic effects.

Another aspect of the strong seasonal demand for rental housing is that year-round owners can also benefit from renting out space for vacationers or summer workers. In fact, the prospect of this

income stream from rentals is such that lending institutions will take it into account in determining a mortgage limit. Island towns, Chilmark included, provide for guest-houses or detached bedrooms that can not only be used to accommodate guests, but can help Islanders to supplement their incomes. One downside to this practice, however, is that the income-generating potential of this housing is one more factor pushing up the value of property.

4.1.3 Affordable Housing Needs

The rising cost of housing on a statewide level has posed serious challenges to State and local governments to address the issue of affordable housing more aggressively, particularly as it threatens the stability of local and state economies to retain an adequate workforce. Since 1999, there has been a grassroots effort on the part of town government, non-profit, religious / ecumenical organizations, private businesses and residents to address the issue of affordable housing on the Vineyard.

In 2001, the Island Affordable Housing Fund hired consultant John Ryan to conduct a housing needs assessment. *"Preserving Community: An Island-wide Housing Needs Assessment"*, highlighted options for the towns when addressing the issue of affordable housing. One of the prominent conclusions of the study was the need for additional rental housing. Other aspects of the study included the rising affordability gap between what an individual can afford and the actual cost of a home on the Vineyard. The decline of homes sales below \$250,000 was also a key element of the study. The report recommended the number of housing units each town would need to produce within the next five years to have a solid affordable housing base.

| Recommended Affordable Housing Targets – Ryan Study | | | | |
|--|--------------------------------|----------------------|---|--------------|
| | Below-Market Rental | Market Rental | Ownership (for Qualified 10- Year Residents) | Total |
| Aquinnah | 6 | 0 | 24 | 30 |
| Chilmark | 12 | 2 | 45 | 59 |
| Edgartown | 48 | 14 | 47 | 109 |
| Oak Bluffs | 48 | 12 | 40 | 100 |
| Tisbury | 56 | 10 | 61 | 127 |
| West Tisbury | 20 | 2 | 20 | 42 |
| Total Vineyard | 190 | 40 | 237 | 467 |

Source: Preserving Community: An Island-wide Needs Assessments by John Ryan, 2001

The Town of Chilmark has worked toward addressing its affordable housing needs primarily through its Youth Lot program, which allows substandard lots to be used for the purposes of providing a substandard buildable lot to a Chilmark youth. Currently, Chilmark has 0% of its year-round housing stock that qualifies for the state’s Chapter 40B Subsidized Housing Inventory which generally defined as housing a household earning 80% or less than the area median

income. The State is strongly encouraging towns to have 10% of the year-round housing stock as affordable. Projecting the number of units over the next five years that meet the Executive Order 418 Housing Certification criteria is difficult. Despite the development constraints, the of Chilmark does not regulate free market units; therefore, the target for newly created units for the next five years was set at the number five.

4.2 HOUSING SUITABILITY ANALYSIS

The preparation of this Community Development Plan has allowed for the preparation of a Housing Suitability Analysis, identifying which parts of the town are most suitable for the development of housing and especially affordable housing. The criteria are based largely on Smart Growth principles of favoring development that uses existing infrastructure and consolidates existing neighborhoods rather than sprawling into environmentally sensitive and other rural areas. As much of Martha's Vineyard is rural – indeed, much of the Island has a minimum lot size of two or three acres – the identification of suitability criteria was difficult. Some of the Smart Growth principals, such as proximity to public transit, when applied as suitability criteria on the Vineyard, produced distinctly un-Smart Growth results. A half dozen potential suitability criteria in addition to those listed below were tried in more than a dozen trial models of the analysis and were ultimately discarded as being inappropriate for evaluating housing suitability on Martha's Vineyard.

The following are the criteria used in the housing suitability analysis.

1. **Existing Neighborhoods:** In or Near Existing Neighborhoods
2. **Access to Services:** In or Near Village Center; Close to a Grocery
3. **Municipal Services:** Served by Town Water; Served by Town Sewer; Close to School
4. **Water Resources:** Not in Nitrogen-Sensitive Watershed

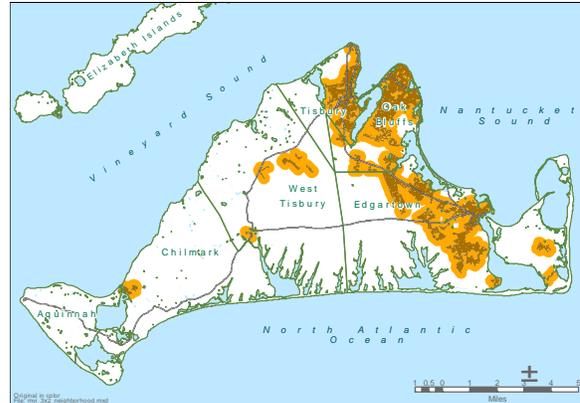
These are explained in more detail in the individual tables, followed by the resulting housing suitability map.

4.2.1. Existing Neighborhoods

The principles of smart growth suggest the desirability of building new housing in or near already existing neighborhoods where the physical and social infrastructure already exist, rather than sprawling into rural areas. An existing 'neighborhood' for this analysis is defined as an area of ten or more adjoining properties (with houses) of less than 1.5-acre parcel size. The effect of this definition removed most residences Up-Island, where minimum lots sizes generally start at 1.5 acres, from being classified as 'neighborhoods.'

| Criteria for Housing Suitability | | |
|---------------------------------------|--------|--------------|
| Existing Neighborhoods in Chilmark | | |
| Criterion | Points | Area (acres) |
| Infill within Existing Neighborhood | 20 | 63 |
| Within 1000' of Existing Neighborhood | 10 | 235 |

Source: Towns' Assessors/Cartographic Assoc. 2003;
MV Conservation Partnership 1999

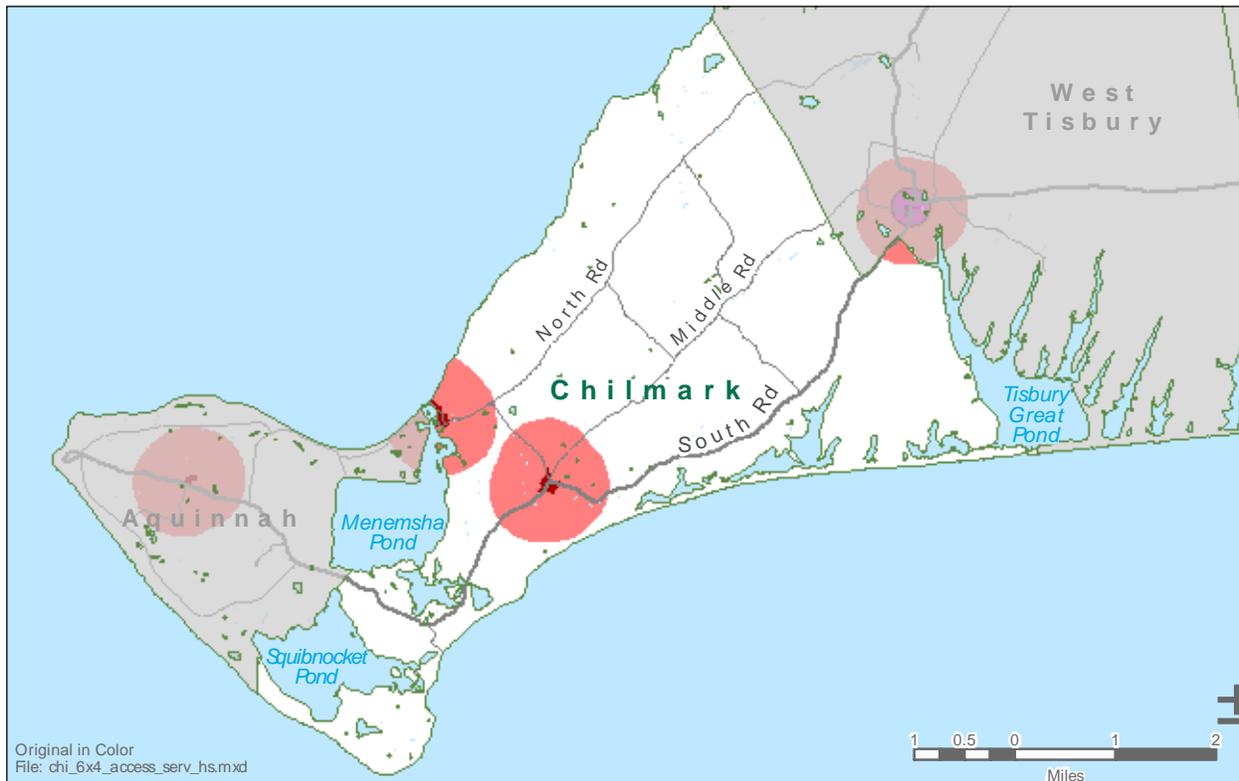
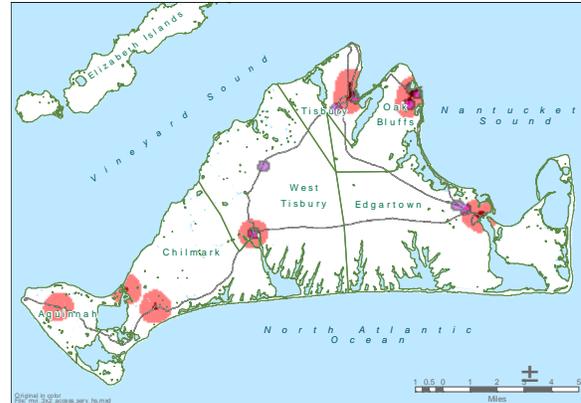


4.2.2. Access to Services

Locating new housing close to village centers – defined here as the areas where Town Hall, libraries and post offices are typically clustered – or close to service shopping – identified here by the existence of a grocery store – means that residents have easy access to services, reducing the amount of driving for errands or employment. This also helps create lively mixed-use neighborhoods.

| Criteria for Housing Suitability | | |
|----------------------------------|--------|--------------|
| Access to Services in Chilmark | | |
| Criterion | Points | Area (acres) |
| Within 2500' of village center | 10 | 1,143 |
| Within 1000' of grocery | 10 | 0 |

Source: Towns' Assessors/Cartographic Assoc. 2003; MV Conservation Partnership 1999; MVC 2004

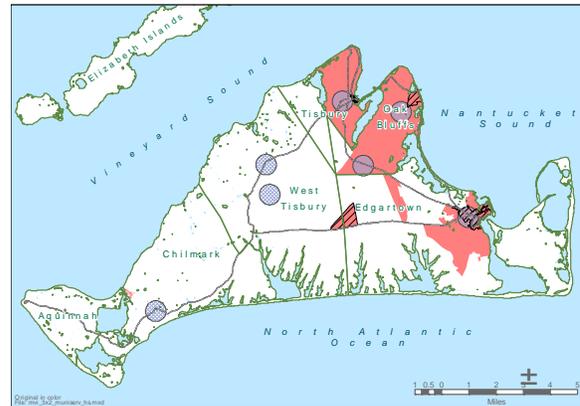


4.2.3. Municipal Services

From a public health perspective as well as from an environmental standpoint, it is preferable to locate housing where it can be served by community water and sewer services. Routine but necessary maintenance of homeowners' individual wells and septic systems frequently goes undone, leading to problems. Putting new housing in areas already close to schools facilitates access without necessarily having to drive. These access issues are especially appropriate in consideration of the needs of low, moderate and middle-income individuals and families who may have less access to private automobiles. (Note that an attempt to use public transit as a criterion resulted in a land use pattern of strip development, contrary to other objectives for directing future development and, thus, was discarded as a criterion for this analysis.) Future refinements of this suitability analysis may reintroduce transit as a criterion, as well as additional criteria such as proximity to recreational open space.

| Criteria for Housing Suitability | | |
|---|--------|--------------|
| Municipal Services in Chilmark | | |
| Criterion | Points | Area (acres) |
|  Served by Town Sewer | 6 | 0 |
|  Served by Town Water | 6 | 32 |
|  Within 2000' of school | 6 | 288 |

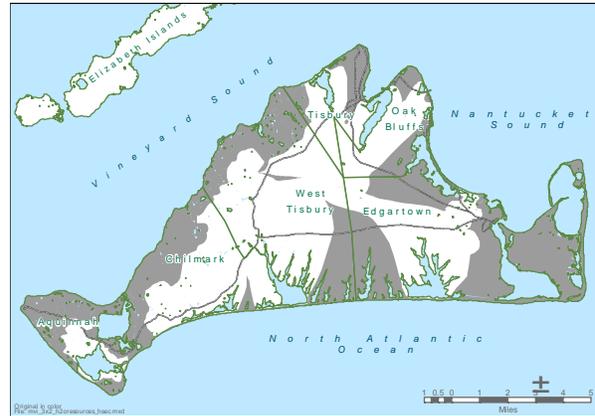
Source: Towns' Assessors/Cartographic Assoc. 2003;
MV Conservation Partnership 1999; MVC 2004



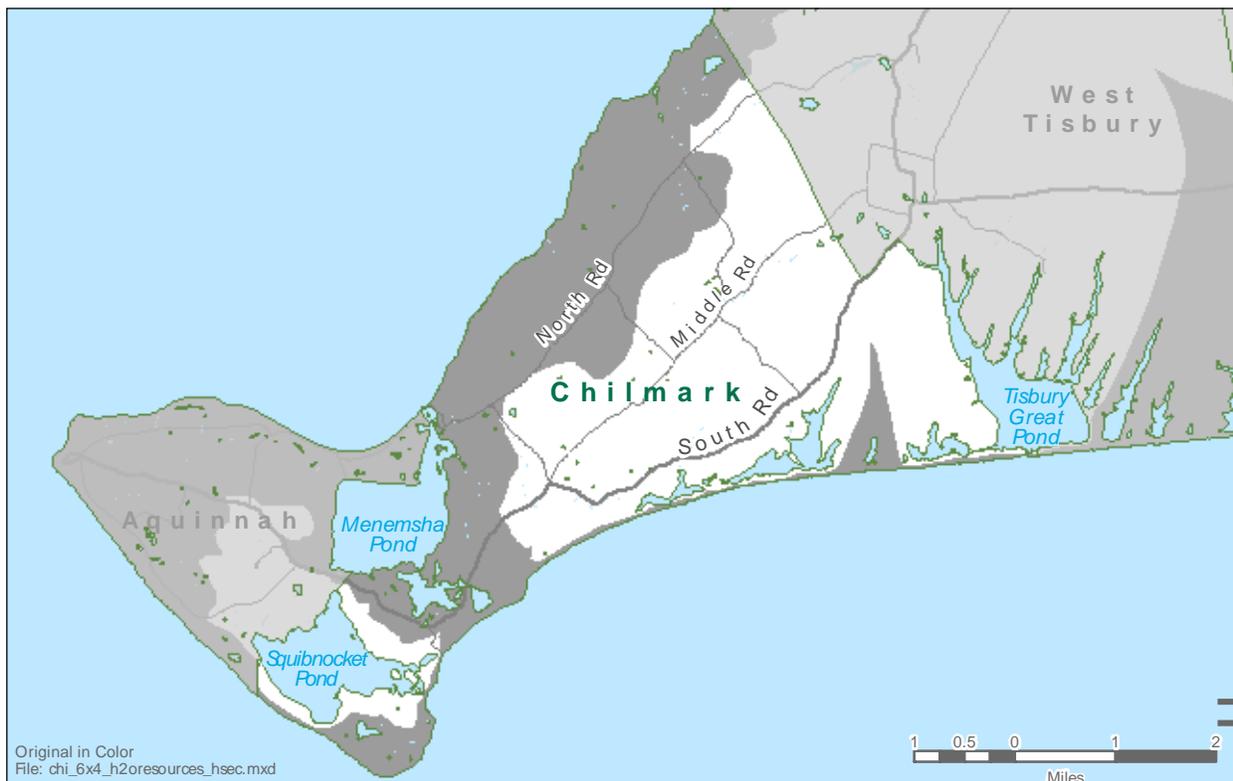
4.2.4. Water Resources

In order to limit the impact of development on precious water resources, it is preferable to limit development in water-sensitive areas. This criterion identifies those locations that are not in the areas of protection of public wellheads (Zone I, Operational Areas of Contribution, and Zone II) as well as outside the watersheds of coastal ponds at or beyond their nitrogen limits. Despite the potential impact to water quality, not a great number of points were given to this criterion because there are options to mitigate the potential impacts of development in these areas.

| Criteria for Housing Suitability | | |
|----------------------------------|--------|--------------|
| Water Resources in Chilmark | | |
| Criterion | Points | Area (acres) |
| Lower sensitivity water area | 4 | 5,406 |



Source: DEP/MassGIS 2003; MVC 2003



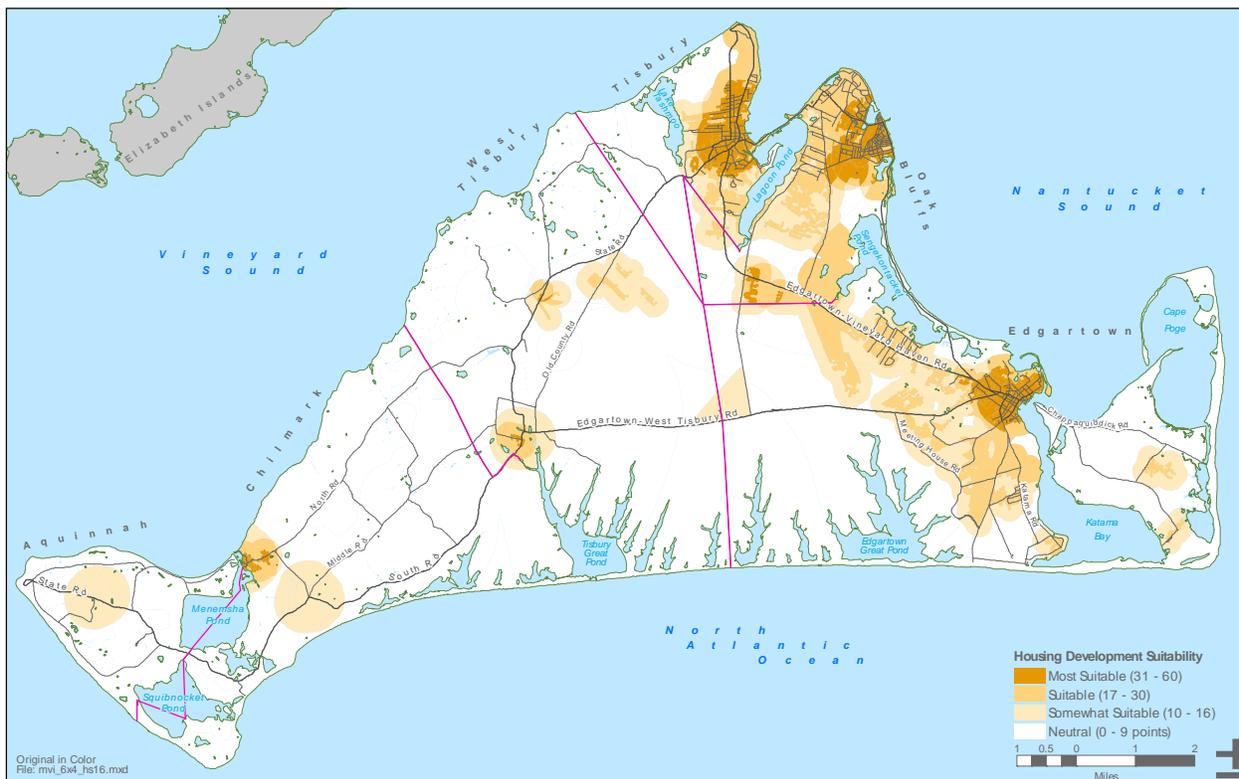
4.2.5 Housing Suitability Map

These maps show the overall suitability of land for the creation of housing, based on a combination of all the criteria described in this section, with the intensity of the color reflecting the degree of suitability. Of course, almost all undeveloped and unprotected land could be used for housing.

On Martha's Vineyard as a whole, the map indicates that the most suitable areas for housing development and particularly for affordable housing that is likely to be higher-density are in and close to the centers of the three Down-Island towns as well as infill areas within and near existing subdivisions.

Within Chilmark, the suitability analysis indicates that there is some housing suitability in Menemsha and around Beetlebung Corner, based on the criteria used in this model.

| Housing Suitability | | |
|---------------------|----------------------|-----------------------------|
| | Martha's Vineyard | Chilmark |
| Most Suitable | 1,984 acres (3.5%) | 61.7 acres (0.5%) |
| Suitable | 5,627 acres (9.8%) | 180.0 acres (1.5%) |
| Somewhat Suitable | 7,374 acres (12.9%) | 870 acres (7.5%) |
| Neutral | 42,190 acres (73.8%) | 10,492 acres (90.4%) |



4.3 HOUSING ORIENTATIONS

4.3.1 Goals

Chilmark is committed to increasing the supply of affordable housing in the hopes of allowing current residents the opportunity to continue to reside within the community. It further recognizes the need to have a diverse housing stock in order to have a healthy and economically diverse community particularly as the escalating rise in property values will continue to challenge affordable housing initiatives. The Town of Chilmark hopes to produce at least 5 affordable housing units for the next five years.

Chilmark will continue to participate in workshops and housing forums regarding innovative ways of addressing affordable housing. The town will also continue to work with the other island towns, the Dukes County Regional Housing Authority, the Martha's Vineyard Commission, as well as other affordable housing groups to address the need for affordable housing.

4.3.2 Objectives

- A. The Town will continue to work toward the state's goal of designating 10% of its year-round housing stock for affordable housing, as defined by DHCD, to be counted towards the state's Chapter 40B Subsidized Housing Inventory.
- B. The Town will develop a plan to designate a percentage of developable vacant Town-owned land for the purposes of developing both affordable rental and homeownership units for families and individuals earning 30% to 150% of the area median income.
- C. The Town will continue to seek monetary funding from the state, local, or private resources for the development or rehabilitation of homes for the purposes of affordable housing initiatives that include both rental and homeownership for households earning 30% to 150% of the area median income.
- D. The Town may designate up to 75% of the Community Preservation Act funds for the purposes of affordable housing.
- E. The Town will continue to refine its zoning for the purposes of encouraging affordable housing by allowing the development of substandard lots and accessory apartments.
- F. The Town will continue to participate in the Small Cities Program, which assists in financing and rehabilitation of existing homes.
- G. The Town will continue to support its Rental Assistance Program.
- H. The Town will continue to support its Youth Lot Program.
- I. The Town will continue to support its Homesite Housing Committee.

4.3.3 Ongoing Affordable Housing Efforts

The Town of Chilmark continues to be active in promoting affordable housing on several fronts.

1. In, 2000 the Town established an Affordable Housing Committee that will work to create affordable housing opportunities that include both rental and home-ownership for households earning 30% up to 150% of the area median income
2. In 2001, the Town approved the Community Preservation Act. Since 2001, the Town has designated a significant portion of CPA funds for the purposes of Affordable Housing.
3. In 2002, the Town adopted the Homesite Housing By-law that allows deed restricted substandard lots to be subdivided for income eligible applicants.
4. In 2003, the Town designated 20 acres of town-owned land for municipal services including but not limited to the creation of affordable housing units (Middle Line Property).
5. In 2002, the Town adopted a zoning bylaw that delays the demolition of a home that could be relocated to another site to be used for affordable housing.
6. In 2003, the Town designated certain funds to hire an administrator to assist the Affordable Housing Committee.
7. In 2003, the Town participated in a regional housing rehabilitation program funded by DHCD Small Cities Program.
8. In 2003, the Town has participated in the Dukes County Regional Housing Authority's Rental Assistance Program.
9. In 2003, the Town has designated funding for the purposes of affordable housing.

5. ECONOMIC DEVELOPMENT

5.1 ECONOMIC DEVELOPMENT PROFILE

The economies of all the towns of the Island are intimately interconnected. Most of the commercial services – shopping, offices, and other commercial and industrial activities – provided to citizens of Chilmark are located in other towns. Therefore, this section gives an overview of the Island’s economy as a whole and then calls out the specifics related to Chilmark within this overall context.

5.1.1 The Seasonal Nature of Martha's Vineyard's Economy

For decades Martha’s Vineyard has been a classic seasonal economy. With the exception of some remaining commercial fishing, which employs only a very small number of people, there are no significant exports of Island goods. People come to the Vineyard for the sun, sand and natural beauty and to get away from the mainland’s hustle and bustle. The Martha’s Vineyard Commission estimates the number of people on the Vineyard in the peak summer months swells to five times the number of year-round residents. Aside from the economic boon these visitors bring by way of purchasing goods and services during their stay, the real estate taxes from second homes across the Island, and the philanthropy of the seasonal residents, allow for a much higher level of services on the Vineyard – both government and private – while also keeping tax levels low.

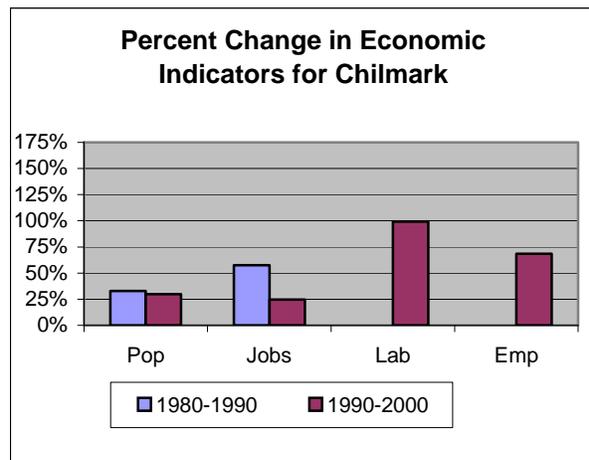
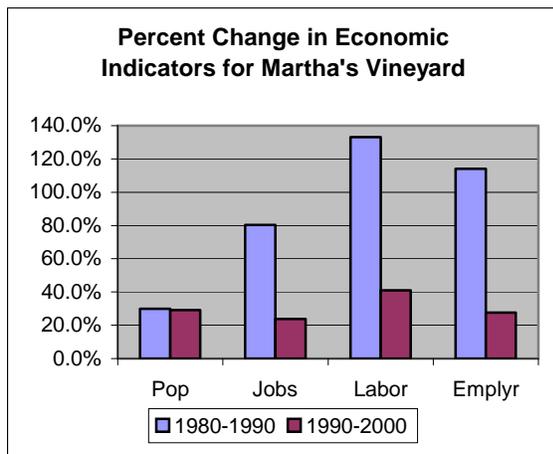
| Population, Jobs (Workforce), Labor Force and Number of Employers by Location | | | | | | | | | | | | | |
|--|--------------|--------------|--------------|------------|---------------|--------------|--------------|------------|---------------|--------------|--------------|--------------|--|
| | 1980 | | | | 1990 | | | | 2000 | | | | |
| | Pop | Jobs | Labor | Emplry | Pop | Jobs | Labor | Emplry | Pop | Jobs | Labor | Emplry | |
| AQ | 220 | 85 | na | na | 201 | 85 | 59 | 12 | 344 | 102 | 77 | 14 | |
| CH | 489 | 228 | na | na | 650 | 359 | 152 | 35 | 843 | 448 | 303 | 59 | |
| ED | 2,204 | 1,011 | na | na | 3,062 | 2,039 | 1,451 | 226 | 3,779 | 2,581 | 2,004 | 308 | |
| OB | 1,984 | 764 | na | na | 2,804 | 1,700 | 1,210 | 173 | 3,713 | 2,027 | 1,849 | 193 | |
| TI | 2,972 | 1,383 | na | na | 3,120 | 1,870 | 1,971 | 324 | 3,755 | 2,145 | 2,327 | 361 | |
| WT | 1,010 | 509 | na | na | 1,704 | 1,124 | 221 | 48 | 2,467 | 1,584 | 578 | 109 | |
| MV | 8,879 | 3,980 | 2,172 | 382 | 11,541 | 7,177 | 5,064 | 818 | 14,901 | 8,887 | 7,138 | 1,044 | |

Source: U.S. Census; MA Dept. of Employment and Training

There are many layers to the economic structure of any tourist and seasonal community. Identifying the makeup of the seasonal population is essential to understanding the overall complexities of the Vineyard economy. The ratio between year-round and seasonal housing occupancy is a vital component of the dynamics of the Island economy. The driving force of the island’s economic base is the second homeowner. Vineyard towns are financially dependent on seasonal residents and second-home owners who pay property taxes but do not require the most

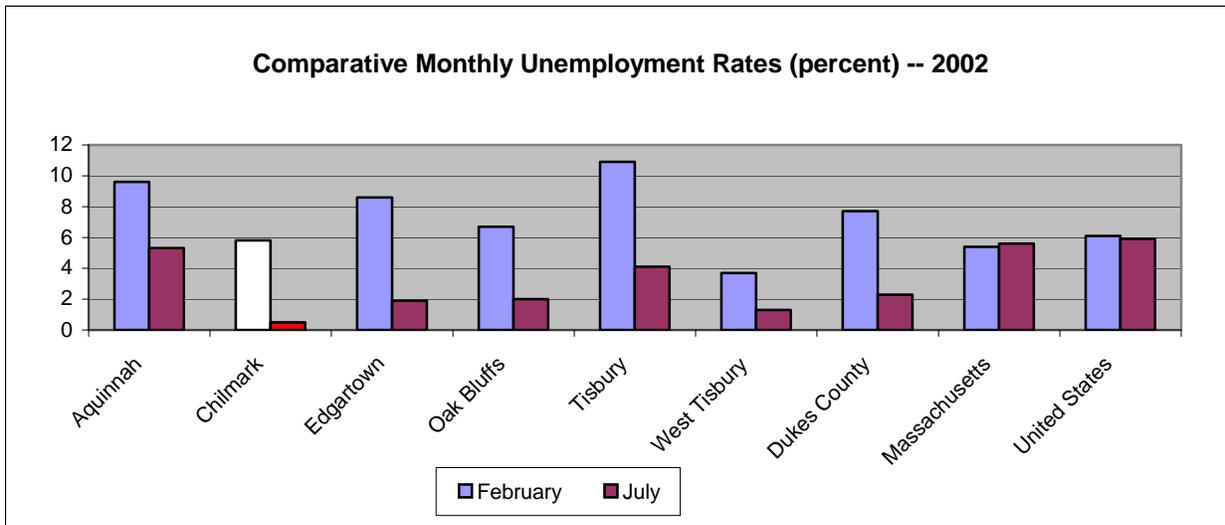
costly of public services – the education of children. However, visitors do require higher levels of some town services, emergency services in particular. The extreme fluctuations from peak season to the winter season place severe strains on Town infrastructure for water, sewer, solid waste, and especially the Island’s road network. The tourist and seasonal nature of the Vineyard poses significant challenges to the Island towns to be able to balance the needs of a growing year-round population while accommodating the seasonal population.

Looking at the changes in a few selected economic indicators over the last two decades of the 20th Century, the large increases in jobs, labor force and employers from 1980 to 1990 reflect the national economy and Island building boom of the mid-80s. In all categories, the Island-wide growth ranged from 30% (population) to 133% (labor force). Between 1990 and 2000, the same categories grew at a markedly slower, and much more uniform, pace. While not all of the comparable 1980 data exists for Chilmark, the trends seem to generally be slight exaggerations of the Island-wide trends; meaning there was a somewhat wider variation among indicators.



Source: U.S. Census; MA Dept. of Employment and Training

The consumer spending of the seasonal population, whether by a year-round resident, seasonal resident, vacationer, or day-tripper is an essential part of the economy and can vary widely among the sub-groups. The popularity of the Vineyard within the past twenty years has allowed seasonal retail and service businesses to extend their operations to broader and broader shoulder seasons.



Source: MA Dept. of Employment and Training

As mentioned in the section on housing, perhaps the most significant challenge posed by the seasonal nature of the Vineyard has been the adverse impact on the housing availability and affordability for both year-round residents and seasonal workers. One key to a stable community is its ability to maintain an adequate workforce by providing housing opportunities, particularly for low and moderate-income residents who perform many of the jobs necessary for businesses, government and organizations to operate. In addition to having a majority of their dwellings occupied seasonally (except for Tisbury and West Tisbury, which have more year-round dwellings than seasonal ones), the additional demand for housing by temporary workers filling the approximately 5,000 additional summer jobs creates a sellers' market and escalates the cost for all housing.

The seasonal effect on year-round residents is evident when looking at unemployment rates on a monthly basis rather than annual. While there is not much difference in the unemployment numbers in July and February for the mainland, on-Island they increase in the off-season from two to more than four times the July rate.

5.1.2 Geographic Structure of Economic Activity

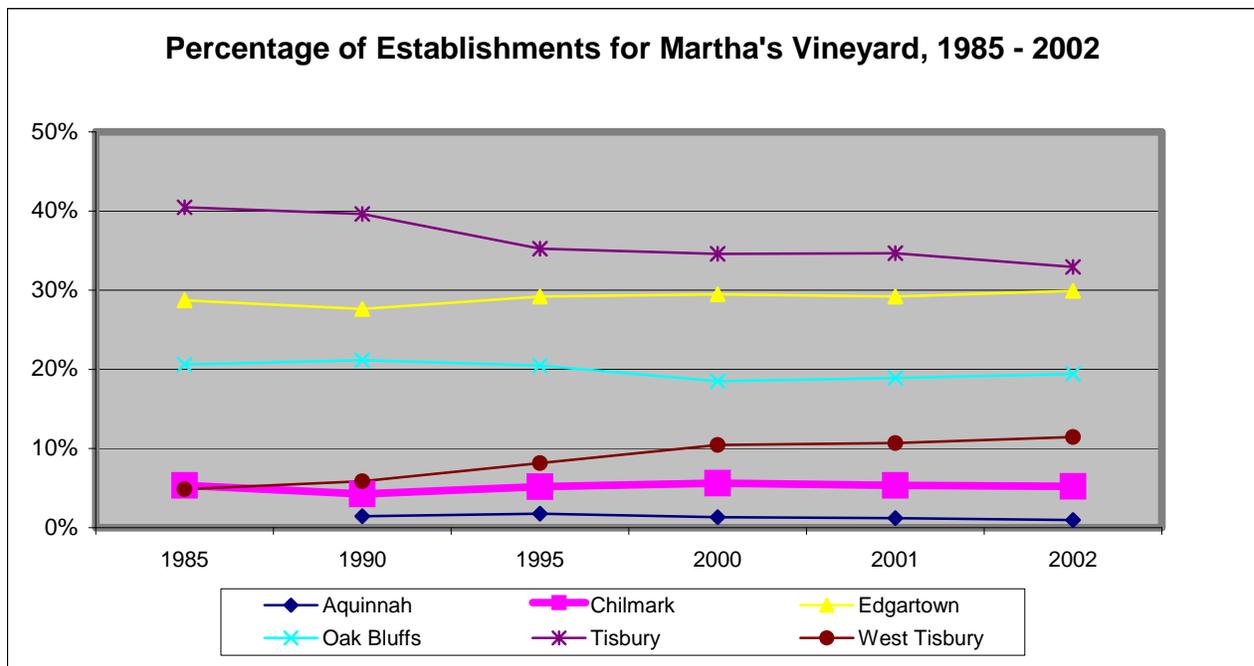
The primary economic activities, both seasonally and year round, on Martha's Vineyard take place predominantly within the Down-Island town centers of Edgartown, Oak Bluffs, and Tisbury. Each town center is located around its own harbor and waterfront areas that are surrounded by dense commercial, mixed-use, and residential development. The waterfronts of Edgartown and Oak Bluffs, and to a lesser extent Tisbury, are comprised of primarily seasonal-oriented establishments that typically close in the off-season. Most year-round retail and office activities are still located in these Down-Island areas but have grown away from the historical commercial centers, most notably Upper Main Street in Edgartown and Upper State Road in Tisbury.

Other retail and office activities are located in smaller centers Up-Island. The newest and largest (and most Down-Island) is in North Tisbury. The West Tisbury village center and the village centers of Menemsha and around Beetlebung Corner in Chilmark are also small areas of limited commercial activity. Chilmark’s retail activity is almost all seasonal, with the exception of a bank at Beetlebung Corner, the gas station at Menemsha, and an establishment that hand-makes and sells chocolates.

Industrial activities are found in various in-town and rural locations scattered in different parts of the Island, notably in the Airport Business Park. Traditional industries include farming and fishing. Menemsha is a regionally unique harbor whose character as a genuine fishing port needs strong town commitment to survive. Recreational boating, sports fishing and non-marine commercial uses have come to dominate other island ports, much as they have mainland ports. Menemsha still presents an authentic and scenic panorama of fishermen's sheds and shacks. While commercial fishing has declined in recent years, the village and harbor continue to serve as a living port for working and pleasure boats, to offer memorable images for tourists, and to provide retail and wholesale seafood commerce.

Martha’s Vineyard also has a considerable number of home businesses throughout the Island. Also dispersed is the construction, renovation, maintenance and landscaping of residential properties.

5.1.3 Business Establishments



Source: MA Dept. of Employment and Training

The island of Martha’s Vineyard has seen continued growth in the total number of business establishments (employers reporting payroll withholding taxes) between 1985 and 2002. The

percentages of establishments in the Up-Island towns of Aquinnah and Chilmark have remained constant. The number of establishments in West Tisbury has grown at an accelerated rate since 1990 and represents an increasing percentage of the Island's businesses. As for the Down-Island communities of Edgartown, Chilmark, and Tisbury, the total number of establishments has increased within each town. On the basis of percentage of establishments Island-wide, Tisbury and, to a much lesser extent, Oak Bluffs have lost their proportional share of the Island's business establishments to West Tisbury.

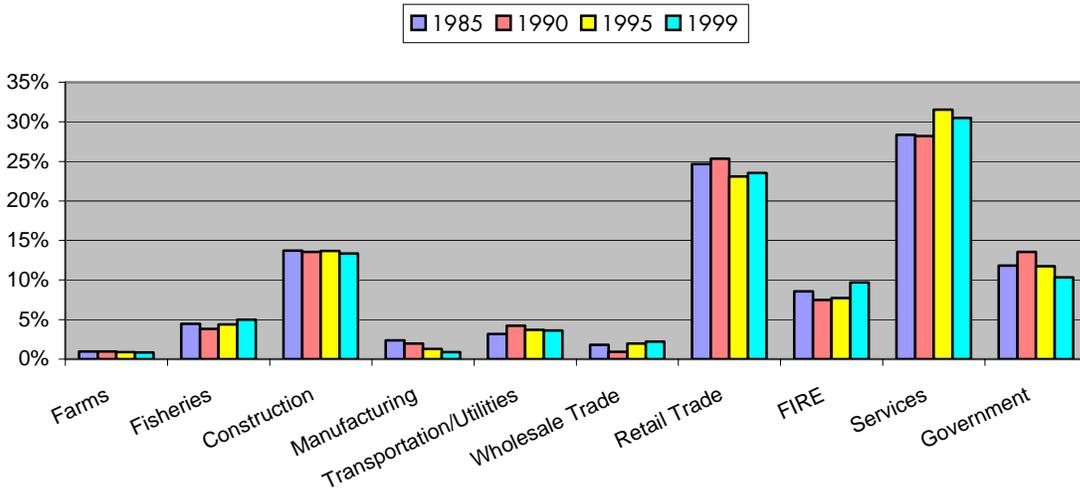
Approximately two-thirds of the establishments on Martha's Vineyard employ between one and four individuals, according to the US Census County-to-County Business Patterns. The 2003 Business Survey conducted jointly by the MVC and the MV Chamber of Commerce indicated a somewhat larger size (possibly because there was an under-representation of home businesses) with an average of five to six full-time employees in retail businesses and eight to ten full-time workers in non-retail businesses. The survey figures did not include part-time workers or seasonal workers.

The difference in demand for seasonal workers is evident in the employment fluctuations during the months of July and August. Balancing the needs such as housing for workers, parking, transportation, and the market demands of the year-round and seasonal economies is a challenge to the Island communities.

5.1.4 Types of Jobs and Wages

Island-wide, retail and services (health care, landscapers, lodging, etc.) jobs have, combined, consistently accounted for more than half of all reported employment. (Note: 'Reported' employment is an important distinction to make in evaluating employment figures. Most employment numbers from federal sources come only from employers required to file withholding taxes for their employees. Sole proprietors, of whom there are many on the Island, are not counted in these employment numbers.) Construction and government jobs account for another quarter of total employment. Perhaps most surprisingly, construction jobs have consistently represented between 13 and 14% of total employment for the five-year intervals measured between 1985 and 1999. Although seasonal tourism requires a lot of retail, service, and construction jobs, the magnitude of these numbers also reflects the growing and stabilizing year-round Island economy in response to the continued strong growth in year-round population.

Percent Change in Employment Sectors Dukes County

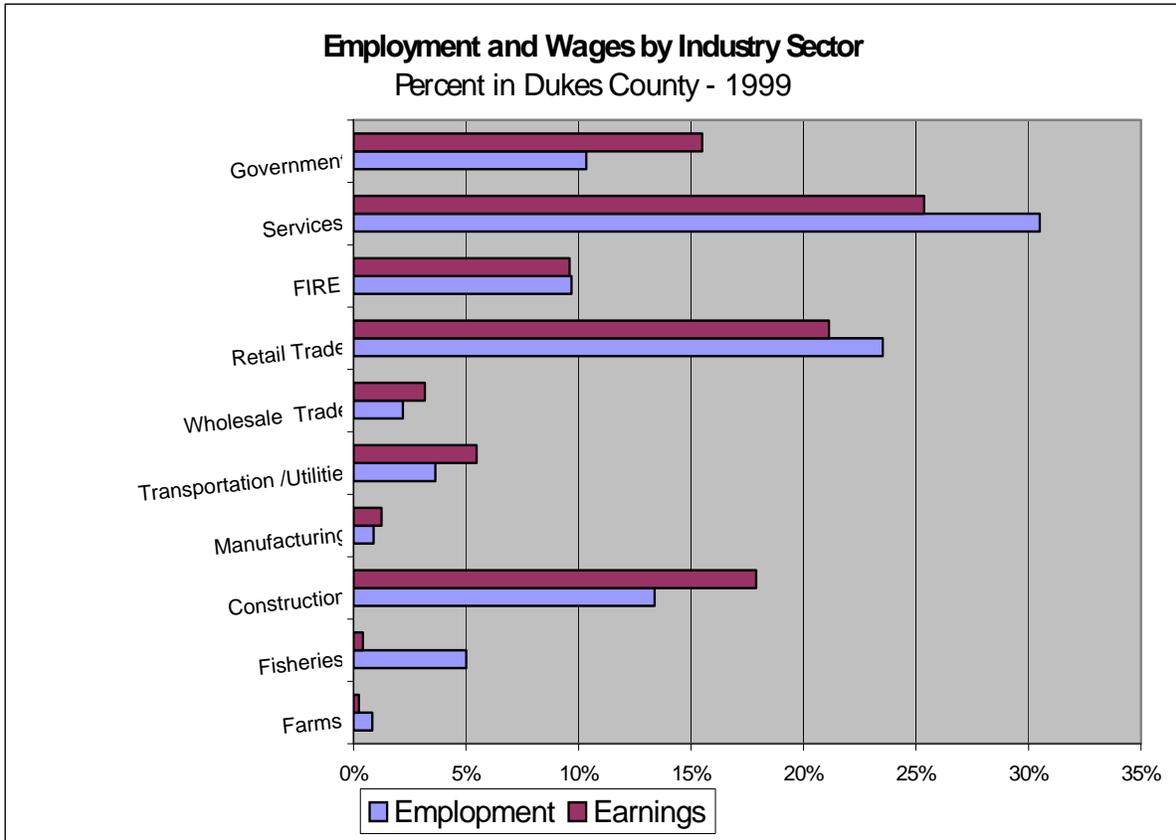


FIRE is Finance, Insurance and Real Estate
Source: U.S. Bureau of Economic Analysis

Because not all jobs pay comparable wages, examination of the total wages represented by each employment sector provides another perspective of the local economy. While retail and service jobs represented 54% of employment in 1999, they accounted for only 47% of the total Island wages. Conversely, the 24% of Island jobs in construction and government actually provided 33% of all wages.

5.1.5 Workforce

Reviewing the comparisons of workforce employment – the number of jobs in a town – for all of the towns on Martha’s Vineyard from 1985 to 2002, the workforce trends varied from the business establishment findings for the Down-Island towns. From 1985 to 2002, there has been an increase in the number of workers working within each town except for Tisbury where there has been a decrease in the number of workers from 2001 to 2002. Nevertheless, Tisbury still had the largest number of workers, followed by Edgartown, Oak Bluffs, West Tisbury, Chilmark, and Aquinnah. The workforce differential among the three Down-Island towns is equalizing – much like their year-round populations. Island-wide percentages of the workforce figures within four of the towns, particularly Tisbury and West Tisbury, were more similar with the percentage trends in the number of business establishments.



Source: U.S. Bureau of Economic Analysis

From 1985 to 2002, the Town of Tisbury had the highest workforce percentage, despite gradual declines in percentages island-wide from 1990, when Tisbury peaked at 39%, to 33% in 2002. It is clear that the Town of West Tisbury has picked up Tisbury's lost percentages. From 1985 to 2002, the Town of West Tisbury has increased from 4% to 10%. In 1985 Edgartown had 32% of the island workforce while Oak Bluffs had 23%. Over the next ten years there was a shift between the two towns. Edgartown experienced a 4% decline while Oak Bluffs experienced a 5% gain. Since 1995, Edgartown has led Oak Bluffs by a margin no greater than two percent. Chilmark and Aquinnah total no more than 5% of the Island's workforce combined

The average annual unemployment rate for Dukes County has been slightly better than the state and national averages since 1990. However, the average annual unemployment trends mask the monthly unemployment fluctuations due to the seasonal and tourist-based economy of Dukes County. The monthly unemployment rates for February and July throughout the years demonstrate dramatic fluctuations for the county and island towns but also show that the state and national rates are more consistent.

5.1.6 Issues Related to Economic Activity

Some Island boards are in the process of re-evaluating various transportation, housing, and zoning issues while considering the current and future economic needs of the year-round community. Concerns being raised within this Community Development Planning process as well as in the context of revisions to the Edgartown and Tisbury Master Plans include:

- the application of smart growth principles to encourage mixed-use development for commercial and housing,
- increasing density within already developed areas,
- creation of satellite parking to better serve commercial areas,
- dealing with concerns about un-regulated industries such as home businesses including conflicts with surrounding residential areas,
- the need to accommodate growth in commercial space;
- the possibility of designating areas for other types of service businesses and light industrial uses (the Airport Business Park, which was specifically designed in the 1980's to be used for warehousing and other industrial uses, is currently operating near full capacity).

Within Chilmark, the key issues are the preservation of the fishing industry in Menemsha and the preservation of the overall scenic and environmental values that are the basis of the Chilmark's second home market and thus, the economic foundation of the town.

5.2 ECONOMIC DEVELOPMENT SUITABILITY ANALYSIS

The economic development suitability analysis used the same methodology as previously described for open space and for housing. The criteria were based largely on Smart Growth principles of favoring development that uses existing infrastructure and consolidates development rather than sprawling into environmentally sensitive and other rural areas. As much of Martha's Vineyard is rural, with some towns unreceptive to any additional commercial activity, the identification of suitability criteria was difficult. Some of the Smart Growth principles, such as proximity to public transit, when applied as suitability criteria on the Vineyard, produced distinctly un-Smart Growth results, namely strip roadside development. A half dozen potential suitability criteria in addition to those listed below were tried in more than a dozen trial models of the analysis and were ultimately discarded as being inappropriate for evaluating economic development suitability on Martha's Vineyard.

The following were the criteria used for evaluating the suitability of land for economic development.

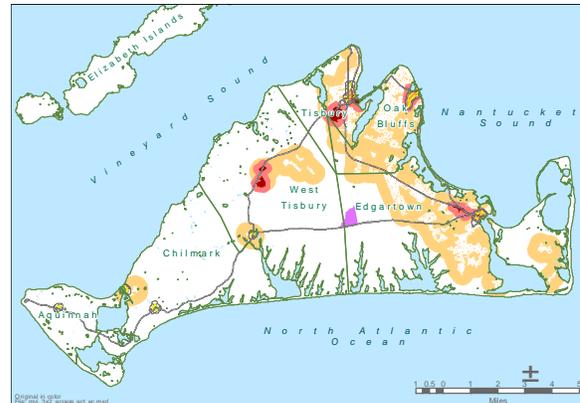
1. **Access to Activities:** In or Near Village Center; In or Near Existing Commercial Areas; In Airport Business Area, Near Existing Neighborhood
2. **Municipal Services:** Close to Major Road; Served by Town Water; Served by Town Sewer
3. **Water Resources:** Not in Nitrogen-Sensitive Watershed

These are explained in more detail in the following tables, followed by the resulting economic development suitability map.

5.2.1. Access to Activities

Consolidating development in or near existing commercial areas allows for creating concentrated and vital commercial areas while limiting the negative impacts of commercial development on residential and rural areas. These commercial areas are primarily Down-Island. It is also desirable to reinforce existing village centers, whether or not they constitute strong commercial areas, so some points were given to these locations. An additional criterion identified lands proximate to existing neighborhoods in order to provide access for jobs and use of these services by residents.

| Criteria for Economic Development Suitability Access to Activities in Chilmark | | |
|---|--------|--------------|
| Criterion | Points | Area (acres) |
|  Inside commercial area | 20 | 0 |
|  Within 1000' of commercial area | 10 | 0 |
|  Inside village center | 8 | 35 |
|  Within 500' of village center | 6 | 122 |
|  Within 2000' of neighborhood | 2 | 526 |



Source: Towns' Assessors/Cartographic Assoc. 2003; MV Conservation Partnership 1999; MVC 2004
Note: the Airport Business Park was given 10 points



5.2.2. Municipal Services

These criteria were explained and mapped in section 4.2.2.

| Criteria for Economic Development Suitability Municipal Services in Chilmark | | |
|--|---------------|-------------------------|
| Criterion | Points | Area (acres) |
| Served by Town Sewer | 6 | 0 |
| Served by Town Water | 6 | 32 |
| Within 200' of major road | 6 | 364 |

5.2.3 Water Resources

This criterion was also used in the housing suitability analysis and is explained in section 4.2.4.

| Criteria for Economic Development Suitability Water Resources in Chilmark | | |
|---|---------------|-------------------------|
| Criterion | Points | Area (acres) |
| Lower sensitivity water area | 2 | 5,406 |

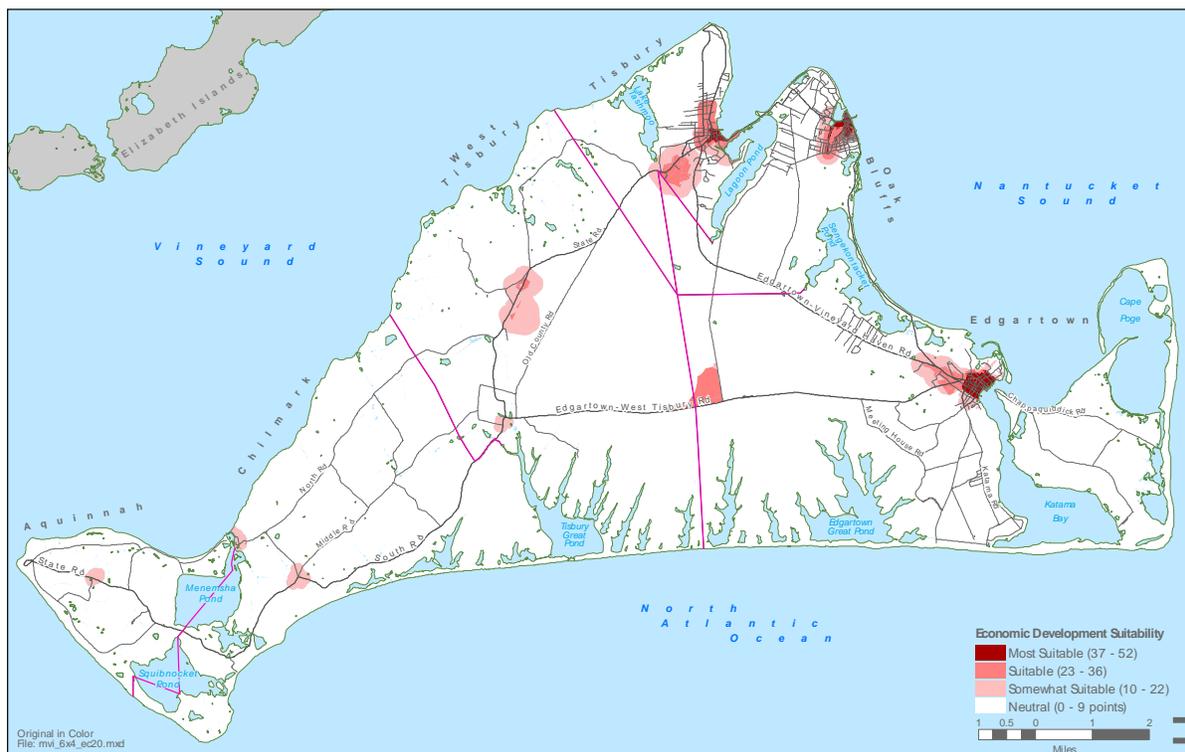
5.2.4 Economic Development Suitability Map

As in the previous sections, this map shows the overall suitability of land for economic development, based on a combination of all the criteria described in this section, with the intensity of the color reflecting the degree of suitability. Lands that are already preserved or developed are overlaid with a diagonal crosshatch.

On Martha's Vineyard as a whole, the map indicates that the most suitable locations for additional commercial development are in and near the existing commercial areas, notably in the Down-Island towns.

Within Chilmark, the application of the criteria suggests that the existing commercial areas, Menemsha and Beetlebung Corner, offer some advantages should the Town ever decide that it wished to have any additional commercial development.

| Economic Development Suitability | | |
|----------------------------------|----------------------|-----------------------------|
| | Martha's Vineyard | Chilmark |
| Most Suitable | 217 acres (0.4%) | 0 acres (0%) |
| Suitable | 765 acres (1.3%) | 4 acres (0%) |
| Somewhat Suitable | 1,487 acres (2.6%) | 143 acres (1.2%) |
| Neutral | 55,203 acres (95.7%) | 12,062 acres (98.8%) |



5.3 ECONOMIC DEVELOPMENT ORIENTATIONS

Chilmark has the highest residential property values in the Commonwealth of Massachusetts, based essentially on the remarkable quality of its residential environment. The community places its greatest priority on the preservation of this environmental quality rather than developing commercial activities. The goals with respect to economic development deal primarily with the preservation of the Menemsha fishing village and the preservation – without any expansion – of the limited areas of service and tourist-oriented retail that serves local residents.

Goal 1: Maintain the visual character of Menemsha as a small fishing village.

Objectives:

- Assure priority of commercial fishing boats in Menemsha Harbor over pleasure craft; maintain presently designated dock areas for commercial fishing vessels; make no expansion of dock facilities for pleasure craft.
- Keep all existing fishing shacks in Menemsha; require that before any shack on Town property is removed, the Town be given the opportunity to purchase it with private or public funds to lease to fishermen.
- Require any new building or alteration to buildings on Town-leased land to be subject to design approval by the Town for continuity of design and proportions of traditional fishing shacks.
- Protect the amount of use and the quality of Menemsha Beach by providing no expansion of on site parking facilities.
- Ban tour buses for the safety of pedestrians on North Road and Basin Road, and enforce the ban.
- Minimize open-air display of merchandise in Menemsha, where safety of pedestrians is a factor.

Goal 2: Preserve but do not expand existing retail or other commercial areas.

Objectives:

- Maintain the prohibition on new commercial activities.
- Monitor the impacts of existing non-conforming retail or other commercial uses.

Goal 3: Deal with the conflicts between existing and potential future home businesses located in residential areas.

Objectives:

1. Register and track home businesses on an annual basis
2. Establish regulations for home businesses to ensure that the character of the neighborhood is not compromised and neighbors are not unduly burdened.

6. SYNTHESIS – PUTTING IT ALL TOGETHER

The final step in the suitability analysis was to combine the three suitability maps.

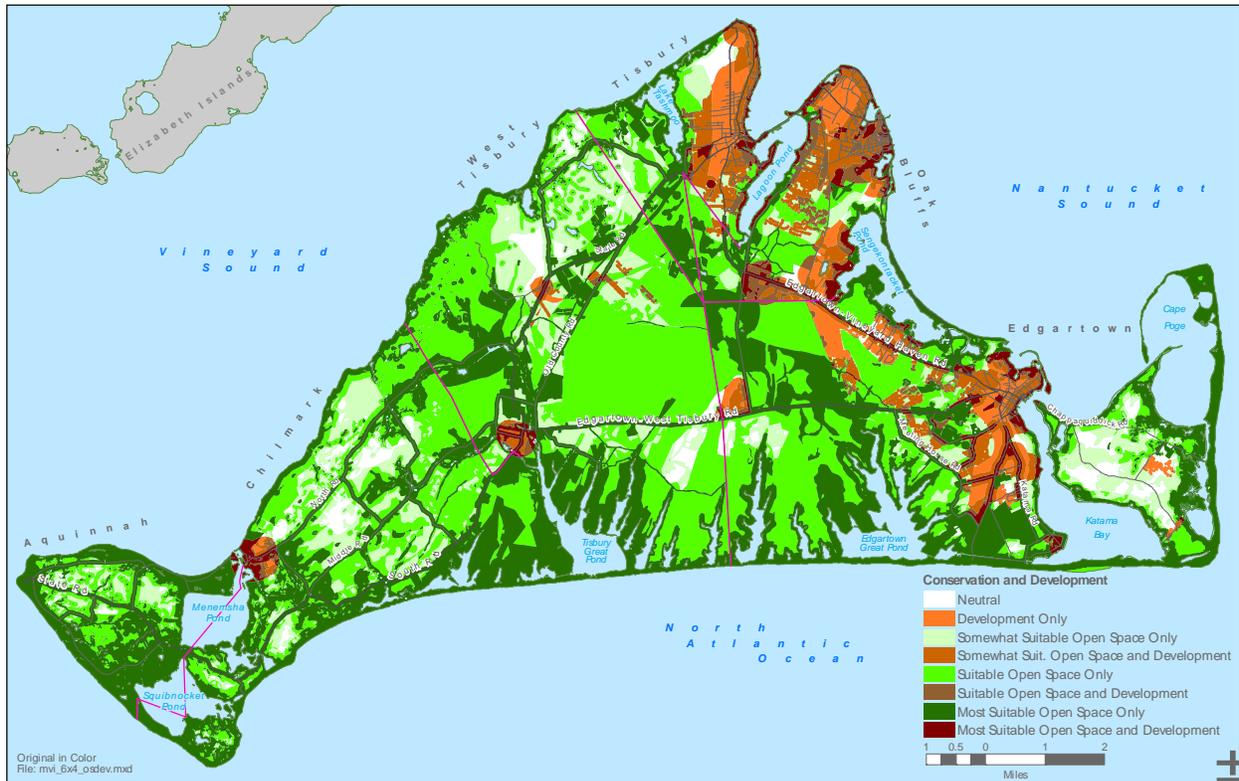
6.1 Development

The foldout map opposite represents the combination of the Housing and the Economic Development Suitability Maps into an overall Development Suitability Map. Those areas that were “suitable” for either housing or economic development were considered “high”; those areas that were neutral or “somewhat suitable” were rated “low”. Remember that this exercise is without considering zoning, ownership, or the suitability of land for open space or natural resource protection that, in many cases, could have a higher priority in determining the ultimate use of the land.

6.2 Development versus Conservation

The map below represents the combination of the Open Space and Natural Resource Preservation Suitability Map with the Development Suitability Map. This map indicates those areas where the suitability for preservation and development are complementary and where they conflict.

| Suitability for Development versus Conservation | | |
|--|--------------------------|-------------------|
| | Martha's Vineyard | Chilmark |
| Neutral | 1,827 acres (3%) | 441 acres (4%) |
| Suitable Development Only | 1,750 acres (3%) | 22 acres (0.2%) |
| Somewhat Suitable Open Space Only | 6,547 acres (11%) | 1,712 acres (15%) |
| Somewhat Suitable Open Space & Suitable Development | 2,952 acres (5%) | 41 acres (0.4%) |
| Suitable Open Space Only | 18,993 acres (33%) | 3,716 acres (32%) |
| Suitable Open Space & Suitable Development | 1,273 acres (2%) | 45 acres (0.4%) |
| Most Suitable Open Space Only | 21,808 acres (38%) | 5,491 acres (47%) |
| Most Suitable Open Space & Suitable Development | 1,917 acres (3%) | 136 acres (1%) |



6.3 Zoning and Implementation Policies

The results of the suitability analysis were compared to the Town’s existing zoning to identify areas where the community might wish to consider changes to make the zoning correspond more appropriately with the suitability of various parts of the town for various uses.

Chilmark, and in fact all of Martha's Vineyard, is an older, largely developed community that has put considerable effort into thinking about what it wants to be. So, not surprisingly, all of the Island towns have largely reaffirmed their existing policies with respect to land use.

6.4 Next Steps

The results of the suitability analysis suggest that Chilmark’s current zoning is appropriate. The Town might consider acquisition of land for open space and natural resource protection, particularly those most highly rated in the suitability analysis; especially if said lands also rated low in the development suitability analysis.

The Martha's Vineyard Commission might also use the results of the suitability analysis in the following ways:

- Consider a policy to require mandatory clustering in areas of highest open space and natural resource suitability when reviewing proposed Developments of Regional Impact;

- Consider the development and open space preservation suitability when reviewing proposed Developments of Regional Impact;
- Consider enlarging or creating Districts of Critical Planning Concern to protect those areas that rated in the highest categories in the open space and natural resource suitability analysis.

The Island's conservation organizations are also encouraged to use the open space and natural preservation suitability map as a guide to identifying properties for possible preservation.

The Community Development planning process has proven to be extremely valuable in many ways. It has allowed the towns and the MVC to gain a much clearer understanding of the various factors involved in land use decisions through the compilation and validation of GIS mapping and other data related to land use, housing and economic development. The open space and natural resource preservation suitability map can serve as a guide for public agencies and conservation organizations by highlighting the land most important to preserve through acquisition of property and conservation restrictions, or through the permitting process by the MVC and town boards. Affordable housing committees can use the housing suitability criteria and maps to focus in on properties for possible projects.

The process has also led the steering committees of all six towns, to conclude that this planning effort should serve as the basis for a comprehensive Island-wide planning effort to re-articulate the broader community's vision for the future growth of the Vineyard. This effort should be a collaboration between the Martha's Vineyard Commission and all six Island towns.

Certain issues can only be dealt with on an Island-wide basis, such as how much additional commercial development there should be and where it should take place. In the community development plans, most communities reaffirmed the extent of the present business districts, with the possible exception of Tisbury that wished to explore a possible expansion of the Upper State Road business area into a presently underused area to create a mixed-use neighborhood. It is believed that more efficient use of existing commercial districts will be able to accommodate future growth. However, the Martha's Vineyard Commission and the towns should work together to test this hypothesis in more detail by estimating how much additional commercial development can be absorbed in existing commercial areas. A significant limiting factor to more concentrated development is the limited community sewer capacity for two of the three Down-Island towns and all of the Up-Island towns. Ideally, this testing could be done by preparing sketch plans for each of these areas. If it is anticipated that additional commercial space will be needed, several options can be explored:

- enlarging existing commercial districts,
- creating a large new commercial district in a new location (e.g. the airport,
- creating small commercial districts dispersed in various Island locations.

Other issues that could be dealt with in this comprehensive planning effort are:

- rate of growth;
- affordable and moderate housing;

- wastewater management;
- preservation of scenic values including a revisitation of the Island Road DCPC and the Coastal DCPC with a view to strengthening its effectiveness;
- traffic and transportation;
- dealing with economic changes in the community:
- open space protection;
- implementation of smart growth principles of concentrating development in compact, mixed-use neighborhoods and preserving rural and other natural areas.

APPENDIX – WATER RESOURCES

There are four significant coastal water bodies in the Town of Chilmark. Chilmark Pond is a south-shore coastal pond separated from the ocean by a barrier beach. Tisbury Great Pond is shared with the Town of West Tisbury and both Menemsha and Squibnocket Ponds are shared with the Town of Aquinnah. Based on water quality analyses, the growth of phytoplankton and marine wrack algae, Tisbury Great, Menemsha and Squibnocket Ponds are clearly limited by the availability of nitrogen during the growing period. Chilmark Pond varies from times when nitrogen is limiting to times when it is not.

The total watershed for Tisbury Great Pond is estimated at 12250 acres. About half of the area lies within the Western Moraine where soil is less permeable and, as a result, supports two significant streams that drain to the Pond. Some groundwater flow may occur from this area to the pond but the amount is unknown due to the complicated geology. The 6214-acre outwash plain area in the watershed is split with 5483 acres in the Town of West Tisbury and 731 acres in Chilmark that contribute groundwater to Tisbury Great Pond (MVC, 2000). Over 4600 acres of the watershed are in open space. There were 841 dwelling units and 16 commercial units at the time and 2399 acres with potential for further subdivision.

The area that contributes fresh water to Chilmark Pond within the Town of Chilmark is estimated to be 3173 acres (MVC, 2001). It is nearly all within the Western Moraine. Mill Brook and Fulling Mill Brook flow into the Upper Pond that is fresh and drains into the Lower Pond. The Lower Pond is breached to the ocean several times each year. As of 2001, there were 373 residences in the watershed and buildout is projected to increase the total to 642 units.

The watershed of Menemsha Pond is 1793 acres, entirely within the Western Moraine. Vigorous tides flush 95 percent of the water out of the pond within 3.2 days. In 2001, there were 373 existing residential and commercial units. This is projected to grow to a maximum of just over 1000 units.

The watershed of Squibnocket Pond is 1260 acres in area and contained 101 residential units in 2001 (MVC, 2001). Buildout is projected to raise the number of units in the watershed to at least 255. Black Brook and Witch Brook drain into the Pond from the Aquinnah side. The entire watershed is within the Western Moraine and is marked by numerous wetlands.

Buildout and Related Water Quality Concerns

The greatest threats to water quality are the man-made sources: nitrogen loading from septic systems and acid rain. Disposal of wastewater from existing dwellings adds nitrogen to the groundwater and eventually to the coastal pond to which that groundwater discharges. The ability of a coastal pond to process nitrogen is dependent on how quickly tidal exchange carries the nitrogen out of the system. The longer the nitrogen is resident in a coastal pond, the more

times it can be passed on to stimulate the growth of new generations of phytoplankton and wrack algae. The water quality in all three systems will be impacted by the nitrogen loading from their watersheds, because marine plant growth in all three systems is limited by the availability of nitrogen. The degree of the impact and its acceptability can be assessed by determining the nitrogen-loading limit for the desired water quality goal.

In Tisbury Great Pond, the water quality goal selected was the "good quality" standard. Based on the tidal exchange for the Pond system at least 12.6 days are necessary to remove 95% of the nitrogen entering the system on any given day. When connected to the ocean, the pond often remains tidal for that amount of time or longer. The recommended loading limit for the Great Pond is 15,000 kilograms of nitrogen per year. The present day load is approximately 13,400 kilograms and will exceed by over 4,000 kilograms under the MVC's moderate growth buildout scenario. Wetlands along the two streams that drain out of the moraine may remove a substantial portion of the nitrogen from those areas and are crucial components of the system.

Tisbury Great Pond shows symptoms of nitrogen loading including decrease in coverage of eelgrass beds, low water column transparency, low oxygen levels in the deeper water and growth of wrack algae. Primary fish resources include oysters and soft shell clams, as well as blue crab, herring and sport fish.

The Chilmark Pond tidal circulation is limited, requiring about 15 days to flush 95 percent of the water present in the system. However, the inlets often do not remain open for that amount of time. Nitrogen loading limits range from 2,261 kilograms per year to 4,500. However, these limits are based on the pond being continuously tidal. The low growth buildout projection is for 5000 kilograms of nitrogen to be added annually. Wetlands within the watershed may reduce the loading in those areas by as much as one-third however, it appears that it will be exceedingly difficult to maintain high water quality within the pond.

Menemsha Pond receives nitrogen loading from both its own watershed and the Squibnocket Pond watershed. It is exceptionally well flushed and nitrogen loading is not expected to be a problem. The Pond is an important source of bay scallops, soft-shell clams, and quahogs, as well as herring and sport fish.

Squibnocket Pond is a brackish pond that is poorly flushed through the Herring Creek. It displays some symptoms of nutrient loading, including phytoplankton blooms and low dissolved oxygen levels. Due to the sparse development in the watershed, this response is suspected to be driven by natural nutrient sources as well as by the nutrients contained in acid rain. The exchange period is estimated to require as much as 354 days. Nitrogen loading limits of 1,500 to 3,000 kilograms were proposed. In 2001, 101 residential units were identified within the watershed. This was projected to grow to as much as 350 units at buildout. Projected nitrogen loading ranges from 2,200 to 4,000 kilograms. The nutrient loading from the watershed may be substantially reduced by the extensive wetlands found throughout. Squibnocket Pond has great potential to yield oysters and is the spawning grounds for a very large herring population.

Options to address water quality impacts include:

- Create nitrogen management area(s) where denitrifying technology is required.
- Educate the public to continue to keep landscape areas small and fertilizer inputs low.
- Eliminate stormwater discharges to streams at road crossings including at Hariph's Bridge, Mill Brook and Fulling Mill Brook.
- Provide improvements to circulation to Chilmark and Squibnocket Pond.
- Acquire conservation easements and title to reduce buildout and resulting nitrogen loading.

Freshwater Resources

Growth of aquatic plants and phytoplankton in these waters are usually not limited by nitrogen but instead are affected by phosphorus loading from the surrounding watershed. Fortunately phosphorus does not travel through the soil as freely as nitrogen. Because much of the Town is within the Western Moraine there are a number of freshwater ponds and extensive fresh wetlands. The primary fresh water resources (over 5 acres in surface area) in the Town of Chilmark include:

| | |
|------------------------|----------|
| Harlock Pond | 14 acres |
| Paint Mill Brook Pond | 5 acres |
| Quenames Pond | 17 acres |
| Squibnocket Ridge Pond | 13 acres |
| Upper Chilmark Pond | 38 acres |

Of these, Quenames Pond is a south shore barrier beach ponds that may be subject to irregular saltwater invasion during storms, causing significant die off of fresh water species. Upper Chilmark Pond is also subject to wave overwash during storms.

Of the fresh water resources, only Upper Chilmark Pond has been sampled in moderate detail (during 1999 and 2000). During 1999, large numbers of colonial bryozoans were seen, that are indicators of eutrophic conditions. The pond also has an extensive bed of pondweed. A phytoplankton bloom reduced water column transparency to about 0.6 meters in 1999. The data available during the study period for chlorophyll, water column transparency, and particulates indicate a eutrophic pond. The dissolved nutrient content indicates that the pond was limited by nitrogen during the study period. This is unusual for a fresh water pond.

Water quality in fresh water ponds may be maintained by treating sewage within a fixed distance of the shoreline to remove both nitrogen and phosphorus. The typical distance for a wastewater management area ranges from 300 to 500 feet. Elimination of stormwater runoff directly into the system will reduce a phosphorus source. Encouragement of a natural plant buffer around the pond will help remove nutrients running off from residential landscapes.

PREPARED FOR THE TOWN OF CHILMARK
BY THE MARTHA'S VINEYARD COMMISSION

