

1989 Update



The Marblehead Comprehensive Plan

PHASE ONE : STATISTICAL SURVEY



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I. REGIONAL SETTING AND AREA OF INFLUENCE

A. INTRODUCTION

The 1970 Comprehensive Plan described Marblehead as "a rapidly maturing densely developed community located on the northeast perimeter of the Boston metropolitan area" (Page 2). At that time, Marblehead was the sixth most densely populated town in the metropolitan area. The plan also discussed the historic growth of the community from a fishing and ship-building economy in the 1600's to a densely-developed town of 21,295 people with a greatly decreased emphasis on maritime industries.

Marblehead is still a densely developed, primarily residential community trying hard to maintain its waterfront, maritime industries and recreational assets. As boatyards close and condominiums are developed in their place, this heritage is threatened. Increased retail activity and tourism has brought with it traffic congestion. The assets which make Marblehead an attractive place to live, work and visit are bringing problems of congestion.

B. THE COMPREHENSIVE PLAN UPDATE

The town's last comprehensive plan was done in 1970 by the consulting firm of Dober, Paddock, Upton and Associates, Inc. The plan's thirteen chapters provided information and recommendations to guide the town's growth. In 1988, the Marblehead Planning Board decided to update the 1970 Comprehensive Plan and approached the Metropolitan Area Planning Council (MAPC) for assistance.

C. MARBLEHEAD AND THE SUBREGION

Many communities in the metropolitan area are finding that the problems that confront them cannot be solved on an individual community basis. Over the past several years, MAPC has assisted communities in forming subregional groups. MAPC subregions are groups of communities that offer citizens and local officials access to the local planning process, subregional planning activities and MAPC planning activities. Monthly meetings provide a forum for MAPC representatives, local officials and residents to discuss local projects, problems and potential impacts on neighboring communities. Through information sharing and exchange, subregional members discover innovative solutions that require multi-town resources.

Marblehead joined the North Shore Transportation Task Force in 1987. This subregion grew out of a concern over increasing traffic congestion on the North Shore. As traffic congestion grew, State Senator Fred Berry (D-Peabody) and local North Shore officials asked the MAPC to form a task force to prioritize local transportation problems. The member communities are Beverly, Danvers, Essex, Gloucester, Hamilton, Ipswich, Manchester, Marblehead, Middleton, Peabody, Rockport, Salem, Swampscott, Topsfield and Wenham.

The North Shore Transportation Task Force currently meets during the first week of each month at various locations throughout the subregion. Staff assistance is provided two days a week at a field office in Beverly City Hall. In the coming year, the Task Force will review local planning goals, and match those with growth management techniques aimed at traffic growth management.

II. LAND USE SURVEY

A. INTRODUCTION

Most activities that occur within a community; the transportation of goods and people, residential development, shopping, the provision of services and recreation, takes place on the land. In a coastal community such as Marblehead, water-related activities are extremely important but even water uses require access from the land. Therefore, some form of land use survey is necessary for any comprehensive plan. The level of detail of a land use survey depends on the purpose for which it is intended. For long-range planning purposes, it is not necessary to have parcel level data but for site selection planning, a higher level of detail is required.

B. THE 1970 COMPREHENSIVE PLAN

The land use survey which appeared in the 1970 Comprehensive Plan was extremely detailed and involved an extensive field survey of every parcel in town. The survey was done in 1968 and used 90 land-use categories. The 1970 Plan presented a summary of the 90 land-use categories aggregated into seventeen groupings.

In 1970, Marblehead was primarily a residential community, with 54.1% of the total acreage of the town devoted to residential uses. Vacant land (including water bodies) accounted for another 31.3% of the total acreage. Public open space and recreation occupied 6.6% of the land area. Public buildings and utilities occupied 5.5% while industrial and commercial uses amounted to only 2.7% of the acreage.

C. MARBLEHEAD TODAY

The Land Use Data

One source of land use data which is frequently used for planning by many communities in the metropolitan area is the MacConnell Land Use Survey. The data are based on aerial photography which is interpreted and mapped by the Resource Mapping Group of the University of Massachusetts, Amherst. This land use survey was first done in 1951 and repeated in 1971, 1980 and 1985. The data are presented in 21 categories. Appendix A contains information on the methodology and a description of the land use categories.

There are several factors which must be kept in mind when using these statistics. The maps and statistics derived from the maps reflect an interpretation of what the land looked like from the air and have not been extensively field checked. The acreage statistics also do not reflect the intensity of the particular use except for the residential categories.

This means that an acre of commercial land with one story buildings is treated the same as an acre of land with three story buildings. However, these statistics have been incorporated into the newly developed statewide Geographic Information System (GIS) and equivalent statistics are available back to 1951, making the data very useful for analyzing changes in land use patterns.

Table II-A shows the acreage for 1985 and 1971 and the percentage change for each of the 21 categories. This information is shown graphically in Figure II-B.

Land Use in Marblehead - 1985

Marblehead is a predominantly residential community with 70.5% of the total acreage devoted to residential development. Forested areas occupied the next highest land area, amounting to 12.6% of the total acreage. Industrial and commercial uses occupied no more than 80 acres. Open lands, agriculture, recreation and wetlands accounted for another 300 acres. Figure II-C is a map of the 1985 land use.

A crucial question for long-range planning is how much vacant land remains and how much of it is developable. The MacConnell land use statistics show that there are approximately 581 acres in three vacant land categories; open and public, open lands, and forested lands, with the majority of that acreage in the forested category. These categories include land that may be in parks, land associated with institutions and open land ready for development. Therefore, not all of this land can be considered developable.

Land Use Assessment for Affordable Housing

In order to assess the town's compliance with state regulations regarding affordable housing, the town planner did a land use assessment pursuant to M.G.L., C.40B, s.20. This land use assessment provides data on certain categories of exempt land and is found in Appendix 8.

Land Use Change 1971-1985

The period 1971-1985 was a time of slow growth in Marblehead, in terms of the acreage of land used for development. Table II-A and Figure II-B show that the greatest acreage increase was in residential development. The highest percentage of growth was in industrial acreage (80%) but the acreage increase was only seven acres. The acreage data are only one indication of growth and it is important to remember that the intensity of the use of land is as important as the acreage involved.

Residential Densities - In order to put raw acreage figures into perspective, it is important to consider the density or intensity of those uses. The MacConnell land use statistics for residential land are broken down into four categories. Figure II-D shows the breakdown of residential land and illustrates that over half of all residential development in Marblehead occurs on lots of less than a quarter of an acre, the second most dense residential category in the MacConnell classification system.

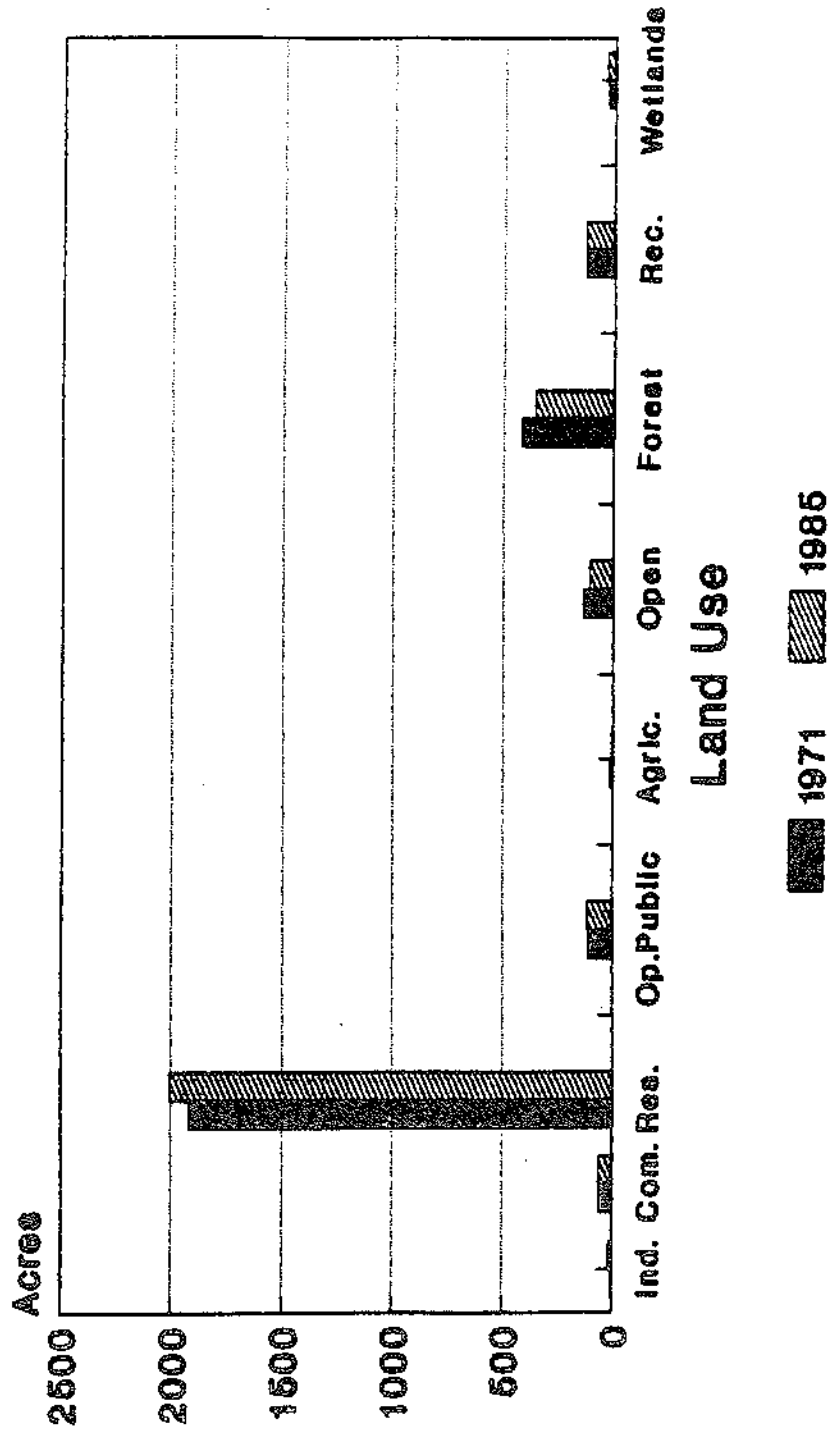
LAND USE CHANGE 1971-1985
TABLE II-A

MARBLEHEAD		ACRES		% CHANGE
		1985	1971	
Urban	Industrial (UI)	17	10	70
	Commercial (UC)	63	63	0
	Multi-Family Residential (RO)	9	6	50
	Dense Residential (R1)	1180	1178	0
	Medium Residential (R2)	597	529	13
	Light Residential (R3)	223	207	8
	Transportation (UT)	0	0	0
	Open and Public (UO)	117	110	6
Urban Total		2206	2103	5
Agriculture	Intensive (AC)	7	14	-50
	Extensive (AP)	2	2	0
	Woody Perennial (WP)	0	0	0
	Agriculture Total	9	16	-44
Open Lands (O) Total		106	136	-22
Forest (F) Total		358	423	-15
Recreation	Water Based (RW)	53	53	0
	Participation (RP)	35	35	0
	Spectator (RS)	42	42	0
	Recreation Total	130	130	0
Wetlands	Water (W)	8	8	0
	Fresh Wetlands (FW)	22	22	0
	Salt Wetlands (SW)	10	10	0
	Wetlands Total	40	40	0
Mining (M) Total		0	0	0
Waste Disposal (UW) Total		0	0	0
Community Total		2849	2848	

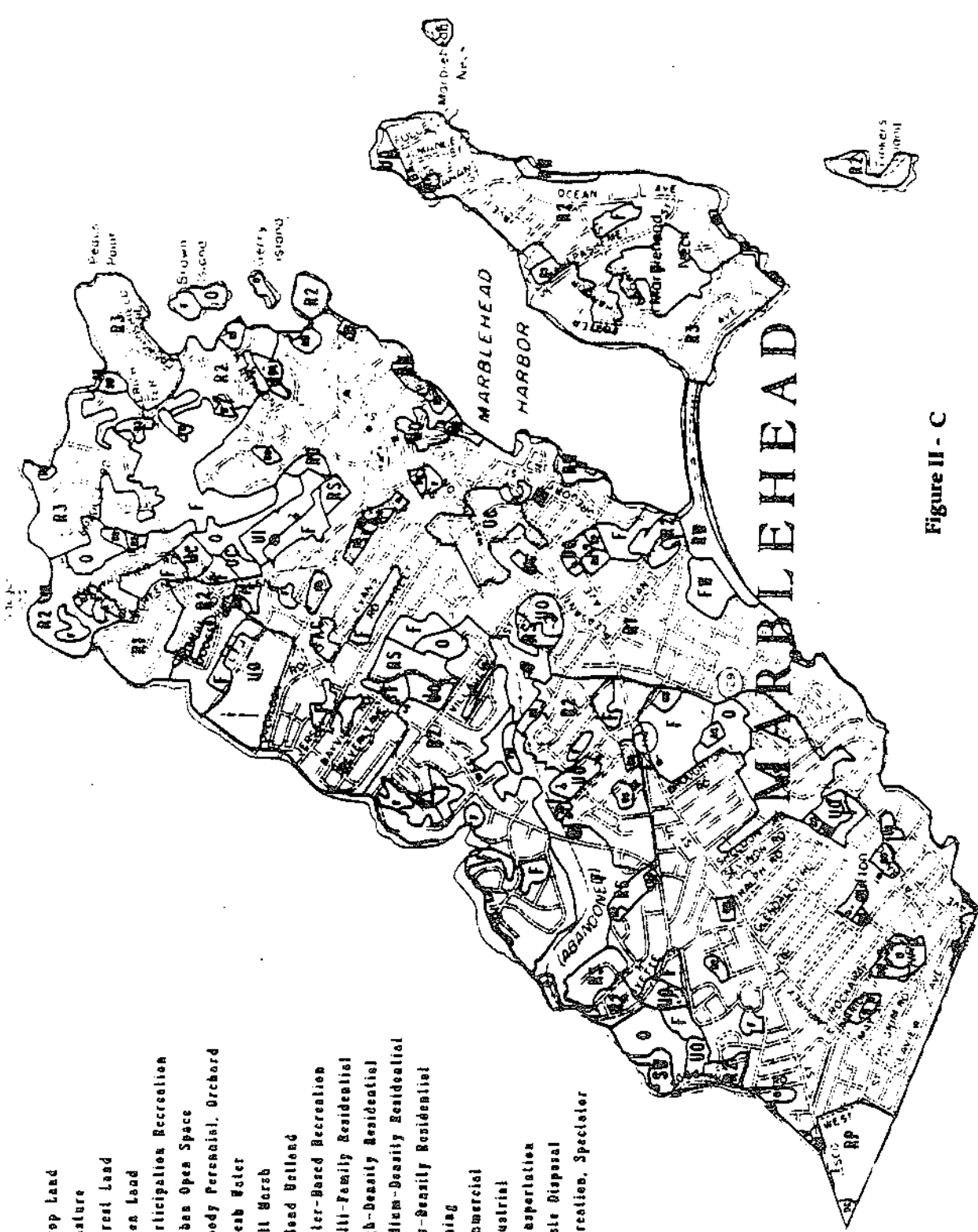
The 1971 data were reformatted to conform to the 1985 categories. Photo interpretation, funded by the Massachusetts Department of Public Works, was carried out in 1987-88 by the Remote Sensing Project, Department of Forestry and Wildlife Management, University of Massachusetts, Amherst. Statistics were prepared by the Hazardous Waste Facilities Site Safety Council in 1988. Land use maps displaying this data at a scale of 1:25,000 are available from MAPC.

LAND USE CHANGE 1971-1985

Figure II-B



Source: MacConnell Land Use Survey



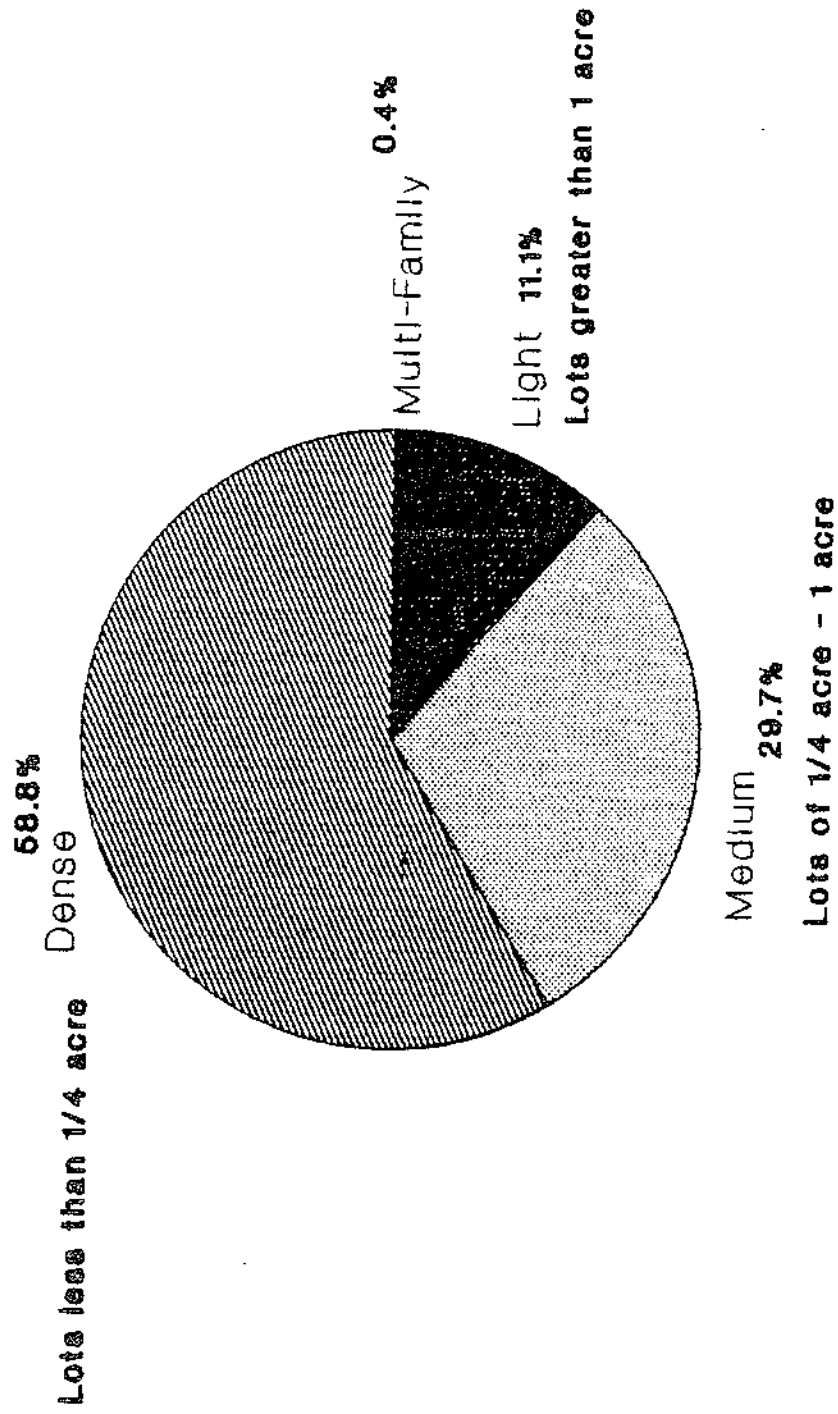
- AC Crop Land
- AP Pasture
- P Forest Land
- O Open Land
- RP Participation Recreation
- UO Urban Open Space
- BP Woody Perennial, Orchard
- P Fresh Water
- SF Salt Marsh
- PB Island Balland
- BB Water-Based Recreation
- B0 Multi-Family Residential
- B1 High-Density Residential
- B2 Medium-Density Residential
- B3 Low-Density Residential
- R Mining
- UC Commercial
- UI Industrial
- UT Transportation
- UR Waste Disposal
- OS Recreation, Spectator

Figure II - C



RESIDENTIAL DENSITIES - 1985

Figure II-D



Source: MacConnell Land Use Survey

D. THE ATLANTIC AVENUE DEVELOPMENT POTENTIAL ANALYSIS

Purpose of the Study - In 1987 MAPC analyzed the development potential of the Atlantic Avenue commercial area and prepared a report entitled "Development Potential Analysis of the Atlantic Avenue Project Area". The study was designed to estimate the maximum amount of development permitted under zoning, to recommend measures to ensure that future development is compatible with existing development, and to suggest alternatives to public financing of the recommended measures. This study illustrates very clearly that there is a potential for intensification of land use without an increase in acreage.

Study Methodology - The study analyzed three development options for each parcel in the study area. The first examined the potential of converting existing residential structures to nonresidential uses. The second evaluated the potential nonresidential development that could occur if existing structures were replaced with new ones. The third option determined the amount of development allowable if all existing structures were demolished and replaced with new buildings that contain both residential and nonresidential uses.

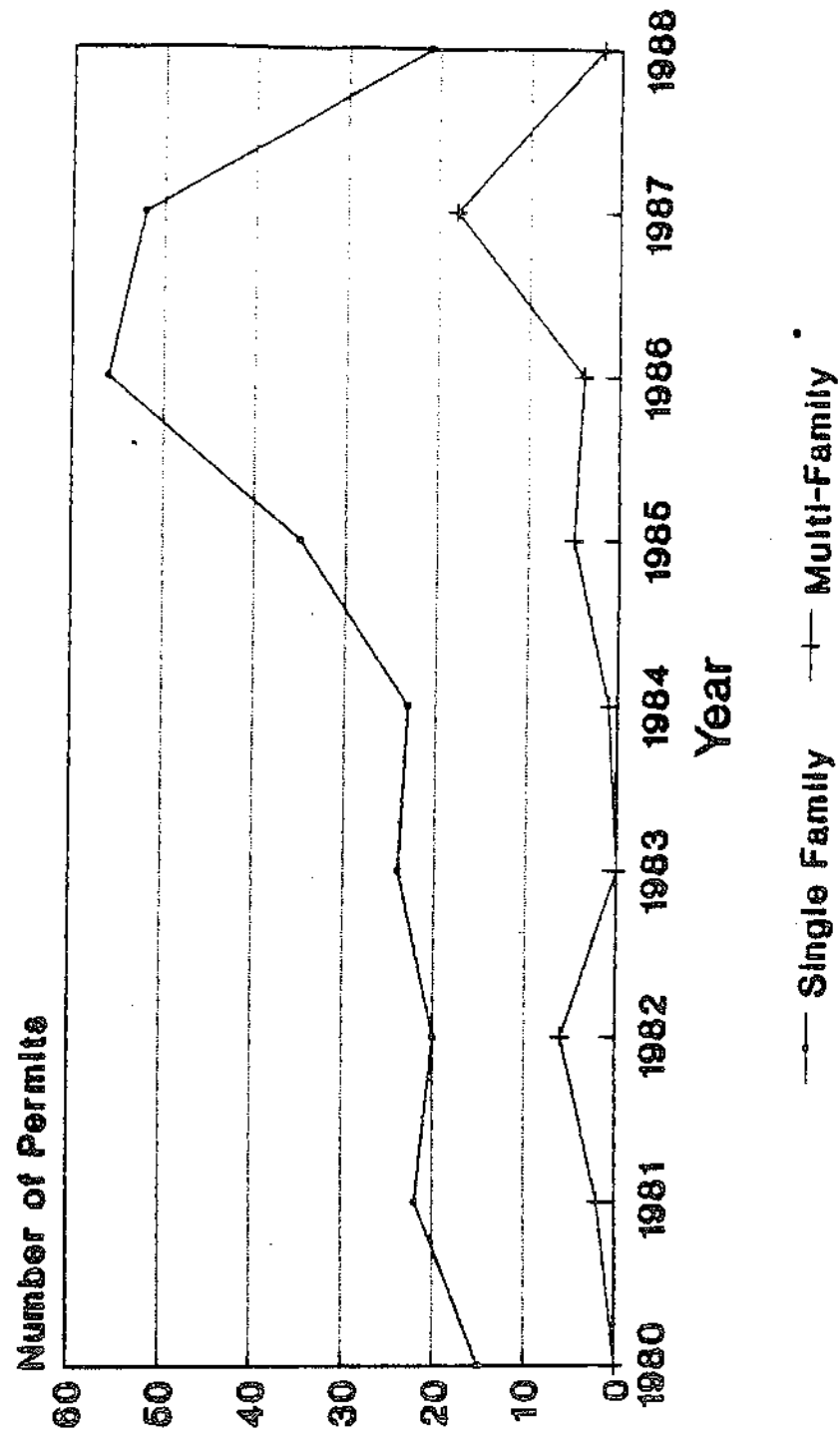
Findings of the Study - The study found that nonresidential development could increase by 8% in the Business-Residential zoning district. In the Business-1 and Business Residential districts, total building area could increase by 103% if all structures were replaced with new mixed-use developments.

Recommendations - The study made five recommendations:

- 1) Institute impact fees to help pay for traffic mitigation measures within the site plan review process. (Approved at 1987 Annual Town Meeting).
- 2) Increase the open space requirement for mixed-use structures in the Business-1 and Business-Residential zoning districts to reduce the development potential. (Approved at 1987 Annual Town Meeting).
- 3) Change the boundary between the Business-1 and Business-Residential districts and the boundary between the Business-1 and General-Residence districts so that each lot is governed by one zoning district.
- 4) Insert a maximum lot coverage restriction to limit the size of the building footprint on any lot.
- 5) Incorporate design guidelines into the site-plan review bylaw to ensure that building and site design reflect the historic character of the town.

RESIDENTIAL BLDG. PERMITS

Figure II-E

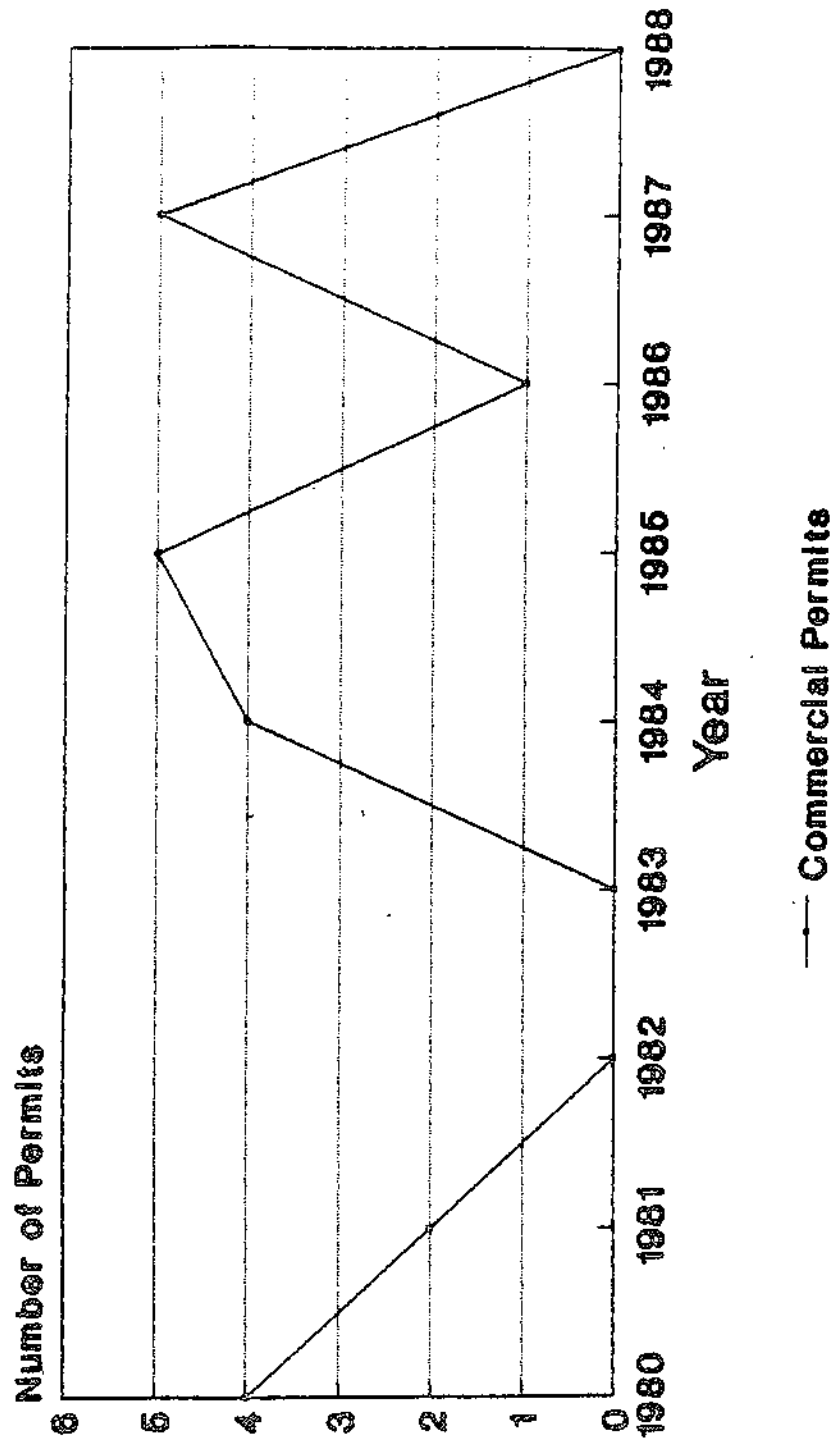


Source: Town Reports, Building Inspector

• Most units were 2-family or semi-detached.

COMMERCIAL BLDG. PERMITS

Figure II-F

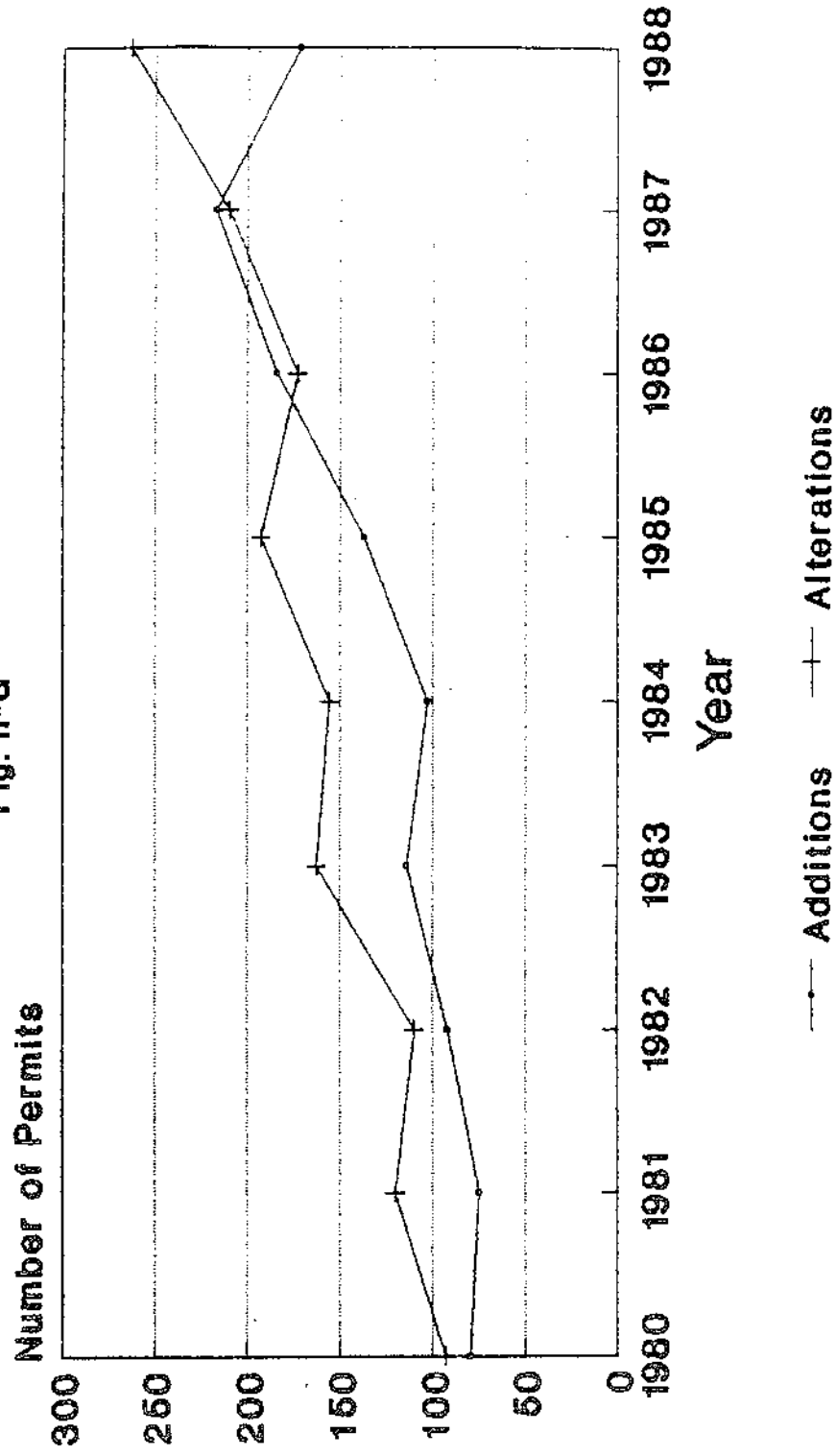


Source: Town reports, Building Inspector

ADDITIONS AND ALTERATIONS

Permits Issued 1980-1988

Fig. II-G



Source: Town reports, Building Inspector

III. POPULATION CHARACTERISTICS

A. INTRODUCTION

Demographics are a key element in any planning effort. The current and projected population is a factor in many municipal decisions regarding the level of future services required such as water supply, sewage disposal and schools. The age of the population affects the type of services and facilities which will be needed. The purpose of this section is to present data on the current and future population as well as to outline some of the demographic trends operating in the region. The discussion of demographic trends is taken from a 1985 publication by MAPC entitled "State of the Region: A Statistical Portrait". This report examined six trends at work in the metropolitan region which have implications for long-range planning and public policy formulation. Two of these trends are introduced briefly below. A more detailed discussion of these trends can be found in "State of the Region".

B. THE CURRENT POPULATION: AN OVERVIEW

The most detailed population statistics are generally found in the U.S. Census. Therefore, the most current U.S. Census (1980) data will be the primary source. A summary of population characteristics for 1970 and 1980 is given in Table III-A.

The 1980 population was 20,126 persons. Of the total population, 46.8 % were male and 53.2 % were female. There were 7,915 households and the majority of these households were families (5,386). The median age was 36.1 years. The minority and non-white population of the town is only 1.3%.

The 1988 official town census was 20,456.

C. THE AGE OF THE POPULATION

Data on age is presented in three tables. The forecasts for 1990 and 1995 are shown along with the 1980 Census data in Figure III-B (Population by Age). Table III-C (Age Groups as a Percentage of the Population) shows the breakdown by age for the actual 1980 figures as well as the forecasted population. Table III-D (Age by Sex for 1980) shows the age breakdown for the 1980 Census.

In 1980 the highest percentage of the population was in the 30-39 year old age group (17.7%). The smallest percentage of the population was in the 0-9 year group (9.34%). By 1995, the percentages will change but the relative importance of these two groups will remain the same. Over the period 1990 - 1995, the two age groups projected to show a numerical increase will be the 10-19 year olds and the 50-59 year olds.

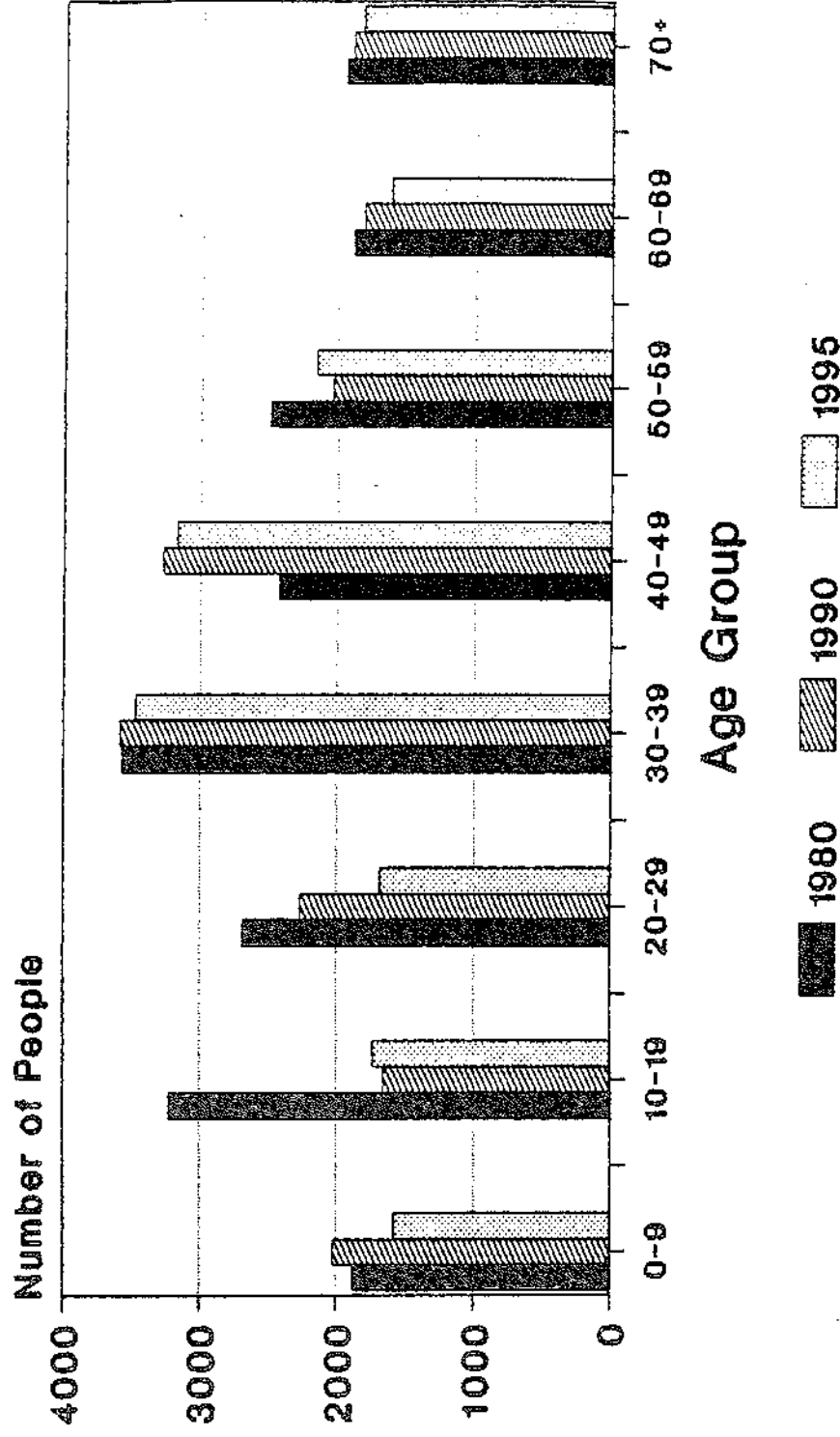
POPULATION CHARACTERISTICS
TABLE III-A

	1970	1980	BOSTON SMSA 1980
Persons	21,295	20,126	2,763,401
Age			
Under five years, percent	7.3	4.1	5.2
18 years and over, percent	68.4	77.1	75.6
65 years and over, percent	12.2	13.8	12.5
Median years	33.6	36.1	31.3
Race			
White, percent	99.7	99.2	91.2
Black, percent	0.3	0.3	5.8
Other race, percent	0.0	0.5	2.9
Households	7,156	7,915	990,660
Persons per household	2.96	2.5	2.7
Families	5,674	5,386	669,028
Single-parent families with children, percent of all families		362 6.7	67,779 10.1
Persons in group quarters, percent	0.7	0.7	3.7
Per capita income	\$5,390	\$11,619	8,182
Household income			
Less than \$10,000, percent		16.5	26.3
\$40,000 or more, percent		22.7	12.4
Median		\$23,982	\$18,694
Family income			
Less than \$10,000, percent	26.8	9.9	16.0
\$40,000 or more, percent		28.9	16.3
Median	\$14,222	\$29,167	\$22,848
Persons with income below poverty, percent of all persons	1004 4.8	986 4.9	252,197 9.4
Persons in families, income below poverty, percent		448 3.9	117,411 7.5
Enrolled in kindergarten, elementary or high school	5,244	3,882	542,234
Enrolled in private schools, colleges, or universities.	1,547	1,242	222,392
College graduates, % of persons 25 yrs	31.2	39.8	24.7

Source: 1970, 1980 U.S. Census

POPULATION BY AGE

Marblehead Fig. II-B



Source: 1980 - Census; Projections - Mass. Institute
for Social and Economic Research

The Uneven Age Profile - One demographic trend which is discussed at length in "The State of the Region" is termed the uneven age profile. During the 1960's and 1970's there was a rapid decline in the number of births. This has resulted in different age groups increasing and decreasing at very different rates. During the late 1990's there will be a sharp decrease in the number of children under five years of age and an increase in the number of persons 75 years and older, due to increasing longevity. The decrease in children under five is reflected in the MISER (Massachusetts Institute for Social and Economic Research) projections for Marblehead. The number of persons 75 and older is projected to decrease although it will increase as a percentage of the population.

The implications of this uneven age structure are far-reaching. Institutions will need to continually anticipate and adjust to the varying sizes of the age groups they serve. School departments may face the prospect of closing high schools. Elementary school enrollments will rise for several years. The result of this age structure is that there may be a confusion of signals in the near future as elementary and high school enrollments move in opposite directions. This will necessitate flexibility in allocating space.

As for employment, job growth has exceeded the region's increase in population for the past several decades. It will be increasingly difficult to fill entry-level, semi-skilled jobs as the number of young adults is projected to drop. Employers may find that they have to offer on-the-job training in order to insure a continuing supply of skilled workers. Labor availability will become more of a factor in industry's plans for expansion or siting.

D. HOUSEHOLDS AND FAMILIES

Looking at the details of how families and households are structured is very important in planning due to the differing needs of various family and household types. A family household consists of a householder (the person or persons in whose name the home is owned or rented) and others related by blood, marriage or adoption. A nonfamily household consists of people living alone or unrelated people living together. MAPC's "State of the Region" report identified the "shrinking and reformulation of households" as one of the most significant demographic trends.

Smaller households are not merely shrunken versions of larger ones. Decline in household size accelerated over the 1970's, not only because of the falling birth rate, but because the young are forming their own households earlier, more people are divorcing, separating, and postponing or foregoing marriage, and life expectancy is increasing, leaving many elderly people to live alone longer. As a result, sharp changes have occurred in the extremes of household size distribution. There has been a large expansion in single-person households and a large reduction in households containing more than four persons (Page 4).

Household size has declined from an average of 4.93 persons in 1890 to 2.75 persons in 1980 and there are indications that this trend will continue. Future declines in household size in Marblehead are likely to come from the increasing number of women who outlive their husbands and maintain their households alone.

A smaller household size reduces the attractiveness of houses with a large number of rooms. However, in some areas large homes with many bedrooms continue to be built and to be sold. This also means that the financial burden of keeping up a large home may lead to units being poorly maintained and may necessitate more flexible provisions for accessory apartments. As the number of single-parent families increases, there is likely to be pressure for local, state and federal programs such as day-care as well as for employers to assist with day-care and to allow flexible working hours. There is also likely to be more emphasis on programs such as Meals-on-Wheels and home-based medical care to allow the elderly to remain in their homes.

In Marblehead, the average household size in 1980 was 2.5 persons per household. The breakdown of households in 1980 was as follows:

Number of family households	5,386
Married couples with children	2,019
Married couples with no children	2,553
Single parents	406
Related persons	408
Non-family households	2,529
People living alone *	2,045
Unrelated persons	484
Total households	7,915

* This number includes 139 males and 746 females over the age of 65.

Of all households in 1980, 68% were defined as family households and 32% were non-family households. The nuclear family (two parents with children) is not the predominant family type. There were more married couples without children (47% of families) than there were couples with children (37% of families). The remaining families were single parents with children (9%) and other related persons living together (7%).

Of the non-family households, 80.9% were individuals living alone and 19.1% were unrelated persons living together.

AGE GROUPS AS A PERCENTAGE OF THE POPULATION
TOWN OF MARBLEHEAD
TABLE III-C

AGE GROUP	1980	1990	1995
0-9	9.34	10.91	9.17
10-19	16.02	8.93	10.06
20-29	13.34	12.23	9.77
30-39	17.73	19.29	20.12
40-49	12.07	17.65	18.40
50-59	12.42	10.97	12.53
60-69	9.38	9.77	9.37
70+	9.66	10.23	10.56

Source: 1980 Census, Mass. Institute for Social and Economic Research

AGE BY SEX MARBLEHEAD- 1980
TABLE III-D

AGE GROUP	MALE	FEMALE	TOTAL
0-4	418	399	817
5-9	531	532	1063
10-14	845	793	1638
15-19	824	764	1588
20-24	616	634	1250
25-29	627	808	1435
30-34	884	1087	1971
35-39	790	808	1598
40-44	558	637	1195
45-49	597	640	1237
50-54	624	638	1262
55-59	607	632	1239
60-64	492	561	1053
65-69	372	463	835
70+	643	1302	1945
TOTAL	9428	10698	20126

Source: 1980 U.S. Census.

E. POPULATION PROJECTIONS

For planning, the future population is even more important than the past and current population. Marblehead's historical population growth is shown in Figure III- E. Population projections done by the Metropolitan Area Planning Council and the Massachusetts Institute for Social and Economic Research (MISER forecasts) are shown in Figure III- F. The MISER forecasts are lower than the MAPC projections. For 1990 the MISER forecasts are 7.1% lower and for 1995, 12.5% lower than the MAPC forecast. However, the 1985 state census of 20,199 and the 1988 town census count of 20,456 would indicate that the MISER projections are too low and that the MAPC projections are closer. Additional population statistics are shown below.

Population Statistics

1985	19,594	Donnelly Demographics
1986	19,580	Mass. Municipal Profile
1988	20,456	Town Census
1990	18,985	Donnelly Demographics

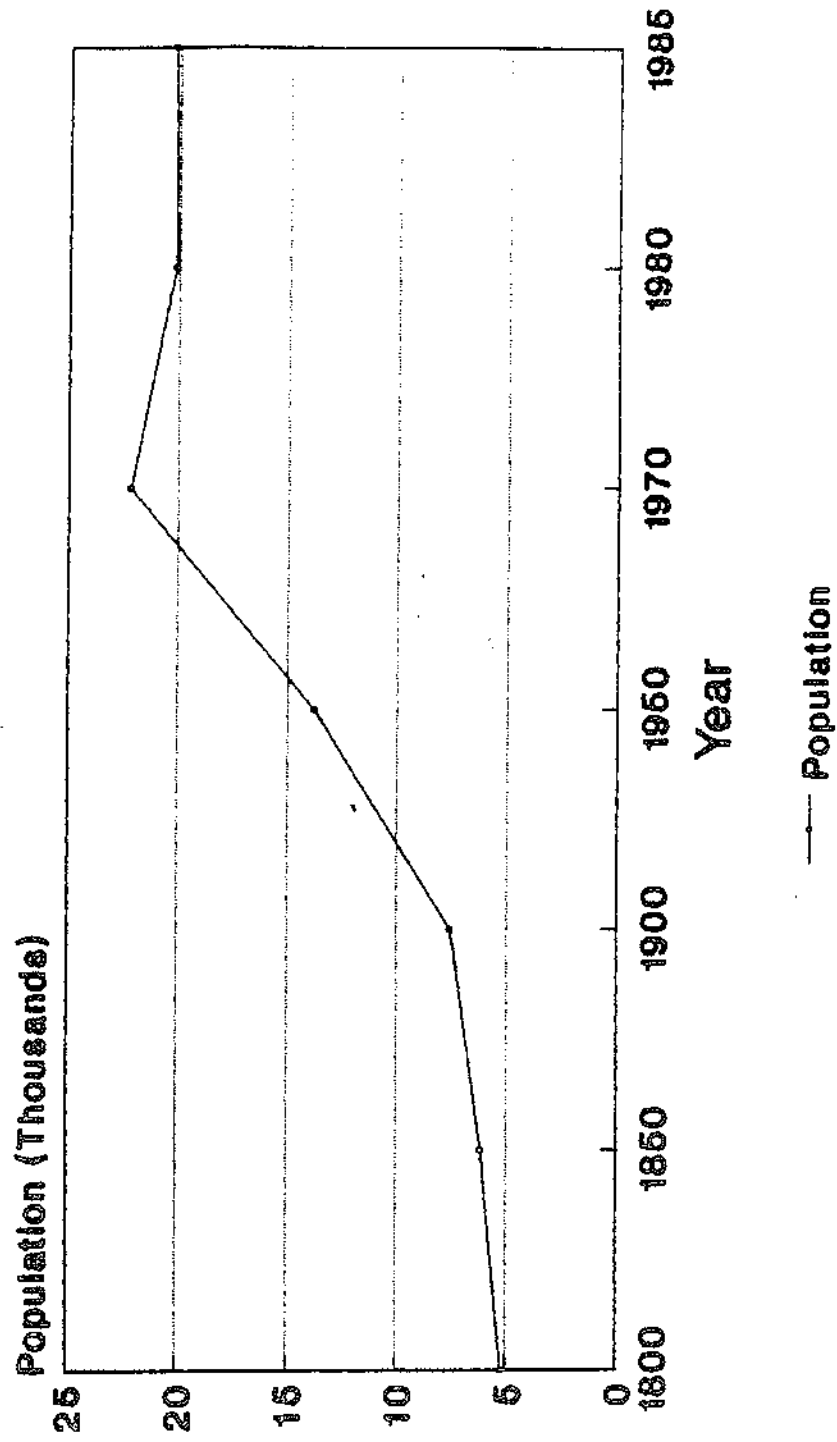
The important factor to remember is that all forecasts show a decline and that both forecasts indicate that the percentage change in population will be small.

F. SOCIO-ECONOMIC CHARACTERISTICS

Table III-G presents employment data from the 1980 Census. A very high percentage (26.1%) of Marblehead residents are employed in the professions. This is reflected in the high median family income (\$29,167) compared to the Boston SMSA. Retail employment (15.6%) is very close to the Boston SMSA.

POPULATION GROWTH

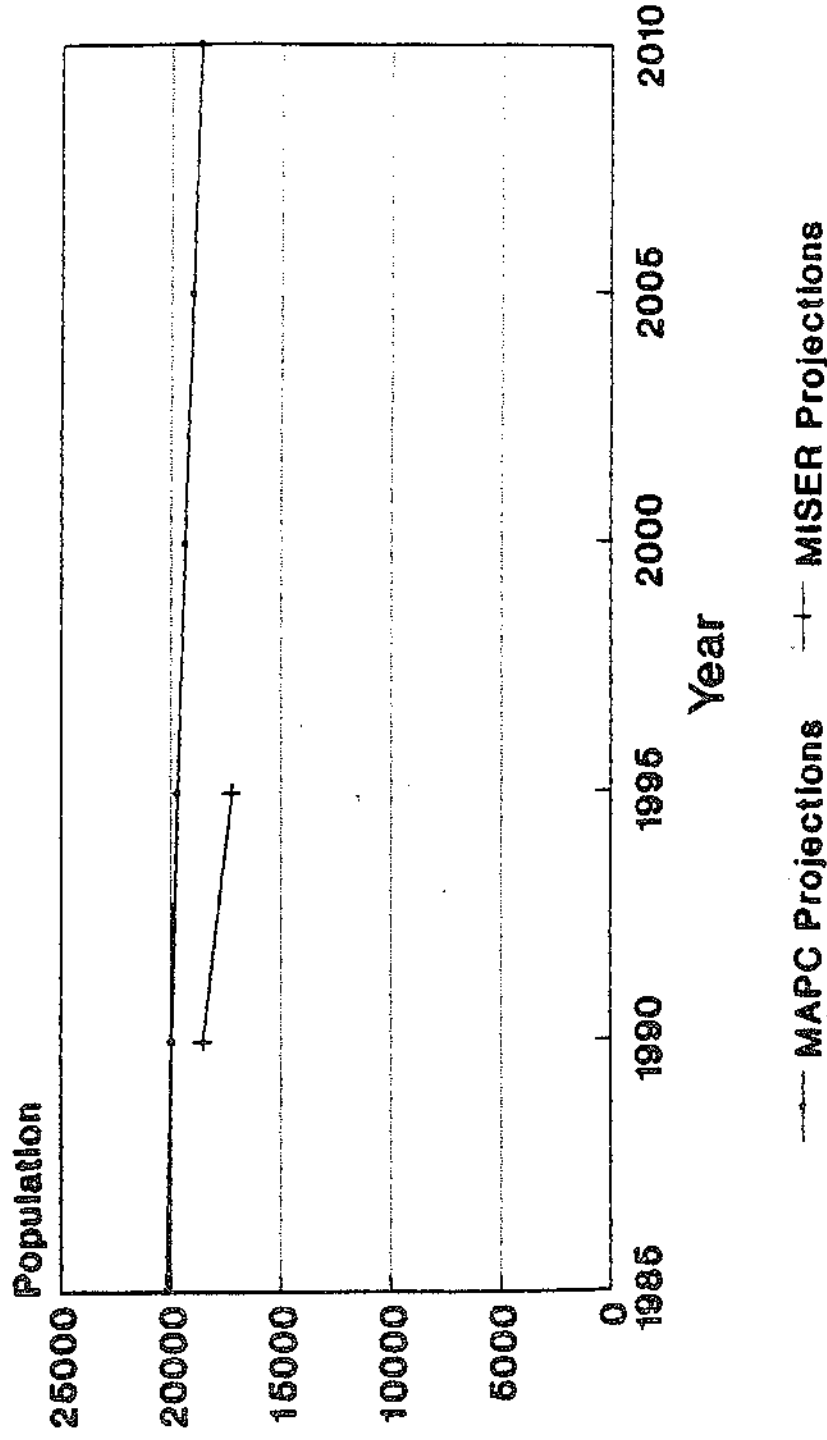
Figure III-E



Source: 1970 Comprehensive Plan, State and Federal Census

POPULATION PROJECTIONS

Figure III-F



Source: Metropolitan Area Planning Council, Mass. Institute
for Social and Economic Research

TABLE III-G

EMPLOYMENT CHARACTERISTICS	MARBLEHEAD	BOSTON SMSA
Employment is reported here by place of residence		
Persons 16 years and over	16,205	2,192,615
Labor force participation, percent	64.8	64.1
Civilian labor force	10,494	1,399,302
Unemployed, percent of civilian labor force	4.2	4.5
Male, percent	3.5	5.5
Female, percent	5.2	2.2
Unemployed in civilian labor force		
White, percent	4.2	2.7
Black, percent	0.0	4.9
Other races, percent	35.0	3.1
Spanish origin (any race), percent	0.0	1.3
Work disability, percent of noninstitutional persons 16 to 64 years	3.9	6.8
Employment by industry for persons 16 years and over, percent	10,051	1,336,220
Industry sector employment, percent:		
Agriculture, forestry, fisheries, mining	0.5	0.5
Construction	4.1	4.1
Manufacturing:		
Nondurables goods	7.0	6.4
Durables goods	10.3	13.2
Transportation, communications and utilities	8.0	6.7
Wholesale trade	5.5	4.2
Retail trade	15.6	15.3
Finance, insurance, and real estate	9.3	7.8
Business and repair services	6.1	5.1
Personal, entertainment, and recreation service	2.6	3.5
Professional and related services:		
Health services	9.9	10.4
Educational services	9.0	11.0
Other professional & related services	7.2	5.9
Public administration	4.9	5.9
Persons employed in executive, administrative, and managerial positions, percent	20.0	12.4
Persons employed in service positions except protective and household, percent	9.1	10.9

IV. HOUSING STUDY

A. INTRODUCTION

Marblehead is experiencing many of the same housing problems which are common to communities in the metropolitan area. Throughout the region, low-income households find it nearly impossible to find adequate housing at reasonable prices. Affordable rental units are fast disappearing as rents increase and units are lost to condominium conversion. The changes in the housing market are affecting moderate and middle-income residents as well. Groups which have been affected include young families, first-time home buyers, single parents, the elderly, municipal workers and skilled professionals relocating to the region. Many department heads in Marblehead indicated that they have had problems recruiting qualified staff and that they preferred that town workers live in the town although this is becoming increasingly difficult.

B. HOUSING IN 1970

Table IV-A shows housing data from the U.S. Census for 1970. There were 7,599 dwelling units in 1970. The housing stock was primarily owner-occupied single-family homes. Over 56% of all housing units were built before 1936.

C. GROWTH AND CHANGE IN THE HOUSING STOCK

Since 1970, a total of 1,052 dwelling units were added to the housing stock. Most of this increase occurred between 1970 and 1980. Between 1980 and 1988, when much of the region experienced a surge of new residential development, Marblehead experienced a net change of only 346 units. Only a few vacant sites remain for future residential development -- an 11 acre site on Lime Street, a five acre site and a few 2 acre sites. Development on some of these sites is constrained by the existence of wetlands or ledge.

TABLE IV-B
GROWTH IN DWELLING UNITS

1970	7,200 dwelling units
1980	8,305 dwelling units
1986	8,477 dwelling units (Abt study *)
1988	8,651 dwelling units (estimate based on MAPC development file).

* The Abt study is a report prepared by Abt Associates, Inc. for the Executive Office of Communities and Development (EOCD) in June, 1988 entitled "Housing Inventory and Policy Indicators".

HOUSING CHARACTERISTICS
TABLE IV-A

	1970	1980
Total housing units	7599	8305
Occupied units lacking complete plumbing for exclusive use, %	1.4	0.6
Occupied units with 1.01 or more persons per room, %	1.6	0.6
Value of owner-occupied units		
Less than \$30,000, percent	59.3	3.1
\$50,000 or more, percent	14.8	75.5
Median	\$32,200	\$80,900
Contract rent, renter-occupied units		
Less than \$100, percent	25.2	8.3
\$300 or more, percent	10.7	49.1
Median	\$137	\$304
Total housing units vacant	242	308
For sale only	17	47
For rent	78	88
Held for occasional use	32	65
Other vacants	71	108
Housing units by units in structure		
1 unit, percent	71.85	71.7
2 units, percent	NA	10.9
3 & 4 units, percent	NA	9.7
5 or more units, percent	8.5	7.7
Mobile home, percent	0	0
Housing units with 3 or more bedrooms		
Owner-occupied	3880	5032
Renter-occupied	421	554
Housing units in structures built before 1939, percent	56.2	52.2
Sewerage disposal by public sewer		
Percent	94.8	97.3
Median monthly owner costs		
With mortgage	NA	\$543
Without mortgage	NA	\$251
Median gross rent, incl. utilities	\$150	\$346

SOURCE: U.S. Census of Housing, 1970, 1980

While the net change represents only a small fraction of the total housing units (4%), this number hides the fact that a more substantial amount of housing related activity occurred. In addition to the development of new, single family homes and duplexes, a significant number of conversions of rental units to condominium ownership occurred. As Table IV-C shows, between 1980 and 1986 there was a net increase of 504 owner-occupied units and, concurrently, a net loss of 335 rental units. Of these 504 owner-occupied units, only 117 were single family homes. Three hundred and eighty-seven were multifamily dwellings.

Housing Stock: Owner-Occupied vs Renter-Occupied 1980-1986

Four hundred and sixty-six (466) condominium units were added between 1980 and 1986. A large number of these (429) occurred as a result of conversion from existing rental units. Twenty-four were added through new construction and 13 were added from adaptive re-use of existing structures. Clearly, nearly all the loss in rental units occurred when units were converted to condominium ownership.

TABLE IV-C
THE HOUSING STOCK SINCE 1980

	1980	% Total	1986	% Total	Change 80-86
Total units	8305		8477		172
Owner-occupied	5624	67.72	6128	72.29	504
Single-family	5201	62.62	5318	62.73	117
Multi-family	423	5.09	810	9.56	387
Renter-occupied	2291	27.59	1956	23.07	-335
Mobile Homes	2	.02	1	.01	-1
Seasonal Units	99	1.19	100	1.18	1
Vacant Year-Round	291	3.50	294	3.47	3
New Construction:1980-1986					180
Conversions from adaptive re-use					13
Gross additions					193
Demolitions					21
Net change					172

Source: Abt Study, 1988

TABLE IV-D
CONDOMINIUMS

Total units 1980:	169
Added through new construction:	24
Added through conversion from rental:	429
Added through adaptive reuse:	13
Total units 1986:	635
1980-1986 Change:	466

Source: Abt study

Condominium Ownership

Table IV-D clearly illustrates the trend towards condominium conversion in Marblehead. The trend towards condominium ownership provided housing that was, in some cases, less expensive than the purchase of existing or new single family homes in the community. However, conversion reduced the number of rental units overall and drove up prices of the remaining units. Because the condominium market has softened in the region as a whole, Marblehead may experience less pressure to convert rental units to condominiums in the near future.

D. CHANGE IN HOUSING COSTS

The change in housing costs since the 1970 Comprehensive Plan has been dramatic. Median rents increased approximately 286% since 1980 and the cost of single family homes increased approximately 290%. While housing costs have increased, mean household incomes have not kept pace. Incomes increased by only 161% between 1980 and 1986.

Median rents

Median rents increased approximately 286% between 1980 and 1987. The 1987 figures from the Rental Housing Association of the Greater Boston Real Estate Board study were based on a sample of only 11 units; therefore, further analysis based on a larger sample would be necessary before drawing accurate conclusions.

As part of this study, several realtors were contacted in April, 1989 to determine the range of rents for apartments. A two bedroom apartment generally rents for \$700-1,000 without utilities and a three bedroom apartment for \$850-1,200. Townhouses are generally \$1,000 and up without utilities.

TABLE IV-E
MEDIAN RENTS

1970	\$150
1980	\$346
1987	\$991

Source: 1970, 1980 Census, Rental Housing Association of the Greater Boston Real Estate Board)

Median housing costs - ownership

TABLE IV-F
HOME OWNERSHIP COSTS

<u>Single Family</u>		<u>Condominium</u>
1970	\$32,200 (1970 Census)	
1980	\$80,900 (1980 census)	
1986	\$235,000 (Abt study)	\$135,000 (Abt study)
1988	\$250,850	\$177,988 (County Home Data)

% increase 1980 to 1986 = 290%

% increase 1980 to 1988 = 310%

Mean Household Income

1980	\$29,329 (1980 Census)
1986	\$47,362 (Abt study)

% increase between 1980 and 1986 = 161%

E. THE IMPLICATIONS OF HOUSING TRENDS

The statistics provided above point to a number of important trends occurring in Marblehead -- trends which adversely affect some segments of the town's population.

Housing costs are increasing more rapidly than income.

This disparity means households who have recently purchased homes or who continue to rent pay an increasing percentage of their incomes on housing costs. Longer-term, existing owners experience a windfall in terms of housing values, but realize it only if they refinance or sell their homes.

An increase in condominium units and a decrease in rental units.

Condominium conversion can provide more affordable ownership opportunities for first-time homebuyers. However, conversion reduces the supply of rental housing available to those community members who either do not have enough income to buy -- primarily young families and single-income households -- or to those community members -- single persons or elderly households who do not want the responsibility or cannot afford the costs of maintaining a home and prefer the advantages that renting provides.

According to the town's planner, few privately-owned parcels, appropriate for residential development, remain. Aside from the 11+ acres on Lime Street for which a 260 unit, mixed-income development is being proposed (see discussion below) and another 5 acre site, most of the remaining parcels are 2 acres or less or have environmental constraints that would make residential development impossible or very expensive -- the presence of wetlands or ledge on the site.

Because many of the state's housing programs rely on the production of new housing units, the lack of available sites for development makes it difficult for the town to expand the number of units available to low-and moderate-income households or meet the housing needs of its existing citizens.

When new development occurs, it most likely will come as a result of more intense land uses.

F. LOCAL EFFORTS TO PRODUCE AFFORDABLE HOUSING

There have been a number of efforts to increase the number of affordable housing units in the community. For the purposes of this report, the state definition of low-and moderate-income will be used. Low-income is defined as a family income which is up to 50% of median family income in the SMSA (Standard Metropolitan Statistical Area) in which the community is located and moderate-income is defined as 50-80% of median family income. The SMSA is an area defined by the U.S. Census Bureau.

The Housing Authority

In 1970, the Housing Authority managed 210 units for low-and moderate-income households. One hundred and thirty-four of the units were for elderly households, and 76 were for families. Since 1970, the Housing Authority has added another 96 units -- 88 of which are units for elderly households, 8 for families. As of 1989, the Housing Authority manages a total of 306 units, or 3.61% of the total housing units in the town. No state funded Chapter 707 or federally funded Section 8 rental certificates are available. The town has applied for these certificates but was denied due to funding constraints.

State Subsidized Housing for Low and Moderate Income Households

	<u>1970</u>	<u>1988</u>
Family Units:	76	84
Elderly Units:	<u>134</u>	<u>222</u>
Total Units:	210	306

The Housing Authority Director reports that there is approximately a one year wait for an elderly unit and a 4 year wait for a family unit. As many as 3 elderly placements are made per month, with an average of 36 placements a year. However, the waiting list for families is significantly longer and there is far less turnover of units.

The Authority would like to purchase additional units on a scattered site basis throughout the community, or find available land for new subsidized housing construction. However, the cost of existing housing and new condominium units coming on the market have precluded purchasing additional units given the price constraints of existing state public housing programs.

As noted earlier, little buildable land remains in the community. The Housing Authority recently applied for a grant from the EOCD to study several available sites for potential development but was not granted the funds. One site that had become available from the school department was considered for public housing development. However, funding programers from the state deemed the site too costly to develop.

Currently, a survey of existing municipally-owned and school department controlled properties is being conducted for the purpose of identifying publicly owned sites for affordable housing development. Of particular interest to the Housing Authority, as well as other housing advocates in town, is the proposal to consolidate town offices and make a municipal building available for conversion to affordable housing.

Comprehensive Permits

Under Chapter 774 of the Acts of 1969, a public agency, a non-profit corporation, or limited dividend corporation can apply for a comprehensive permit approval for a mixed-income housing development which overrides existing restrictions on multi-family housing development or can build a development at a higher density than allowed by right under local zoning laws. This can occur only if less than 10% of the town's housing stock is subsidized through state and federal housing programs and is available to low and moderate income households. Marblehead, at 3.61%, is significantly below this threshold.

Lime Street - A developer is discussing with a town study committee (comprised of members from the housing authority, the planning board, the engineering department and the board of appeals) a proposal to build 260 rental units, on a 11.28 acre site with funds from the state's TELLAR program. Under TELLAR guidelines, fifty-two of the units (20%) would be available to low-and moderate-income tenants, 208 units would be rented at market rates.

The town has applied for a Municipal Advance Grant from the EOCD to review the Lime Street project in light of local affordable housing needs and the community's goals.

The Director of the Housing Authority noted that, in addition to the Lime Street proposal, the owner of another, vacant 5 acre parcel might propose a development under the comprehensive permit process at a future date.

The Fair Housing Committee

In 1985, the Fair Housing Committee completed a housing needs study entitled Housing Opportunity in Marblehead. The report identified a number of housing needs and suggested a number of actions the committee and others interested in expanding housing opportunities in the community could take. The recommendations are summarized below.

- 1) Establish an affirmative program to increase the number of minorities who chose to live in Marblehead.

2) Assist the Housing Authority to locate sites, obtain local approval, and prepare proposals for state funding to increase the supply of public housing in Marblehead. Also investigate other state and federal programs for low and moderate income housing.

3) Propose zoning provisions which would permit greater density in order to encourage private developers and non-profit corporations to construct lower cost housing. The adoption of "cluster development" and "inclusionary zoning" provisions for appropriate areas of town could be one such approach.

4) Propose zoning provisions supportive of congregate housing for the elderly, and for the conversion of single family dwellings to two family dwellings.

5) Request that the relevant Town boards request developers, as a condition for securing approval necessary for projects, to agree to take affirmative steps to attract minority buyers or tenants.

6) Encourage the reuse of existing surplus town buildings and structures for low and moderate income housing rather than for luxury housing. In particular, the Gerry School and the Sewall Building should be set aside for addition to the town's assisted housing stock, either through the Housing Authority or through private development.

7) Encourage and assist the Housing Authority in expanding its rental subsidy program.

8) Propose that Town Meeting adopt a Fair Housing Policy Resolution for the Town and its governing bodies. The resolution should set forth reasons why economic and racial diversity will benefit all residents. Under the resolution, all units of Town government would be required to consider the impact of any action upon the economic and racial diversity of the Town.

Since the report, the committee has submitted a Fair Housing Resolution to the 1986 Town Meeting which passed unanimously. The Resolution draws attention to a number of housing problems:

- o the shortage of housing for persons of low, moderate and fixed incomes,
- o the scarcity of available land and the high costs of new development,
- o the escalating cost of home maintenance because of inflation and taxes and its impact on citizens of moderate means,
- o the town's desire to maintain diversity among its residents, and not lose long-term residents or exclude new residents solely because they are of low-or moderate-income,

The Resolution recommends that:

- o the Marblehead Housing Authority work to increase the supply of subsidized low-and moderate-income housing, particularly for families, through the use of available state and federal subsidy programs,
- o the Marblehead Planning Board consider zoning ordinances designed to expand the inventory of low-and moderate-income housing, within the context of other community planning goals.

The Fair Housing Committee's efforts to achieve fair and affordable housing in Marblehead include:

- o promoting scattered-site housing to balance the impact of affordable housing projects and neighborhood concerns,
- o conducting a community survey to identify those seeking affordable housing and help the town plan for how much housing needs to be provided,
- o investigating how to form a non-profit community development corporation dedicated to the production of low and moderate-income housing,
- o working with private developers to have them include low and moderate income housing within new housing developments planned in Marblehead,
- o educating the community as to the benefits of fair and affordable housing to the town.

The Fair Housing Committee's current efforts include:

A study of town-owned parcels suitable for scattered-site affordable housing development. Sites include vacant land, municipal buildings, school controlled land and buildings.

The Planning Board

The Board has researched and considered the adoption of an inclusionary housing bylaw which would require residential developers seeking density bonuses or zoning relief to include some percentage of affordable units within the development. To date, no bylaw has been adopted. However, the town planner reports that when residential developers are requesting zoning relief from the town, the town will negotiate for the inclusion of affordable units in the development. Currently, the town and one developer seeking zoning variances for a new subdivision are now considering such a proposal.

The town is applying to the Massachusetts Housing Partnership to be designated a partnership community. As such, the town forms a broad based committee of individuals interested in addressing the affordable housing problems in the community. MHP committees can apply for a wide range of state housing and planning funds.

Marblehead Unique Seaport Trust (MUST) - The proposal to create the Marblehead Unique Seaport Trust is the town's adaptation of the concept of land bank legislation which has been discussed throughout the Commonwealth over the past few years. This proposal is discussed more fully in the section on open space. If enabling legislation is passed and Marblehead is able to implement the trust idea, a certain percentage of all revenue generated by the real estate transfer tax would be earmarked for affordable housing efforts.

In 1987 the Massachusetts Affordable Housing Alliance estimated the amount of revenues from a real estate transfer tax for each community based on actual 1985 real estate transfers. With a 1% tax and no exemptions, Marblehead's revenues would have been \$732,700 for 1985. The MUST Committee calculated that the total value of real estate sales (619 transfers) for 1986 was \$148,771,506. Revenues from the transfer tax would vary depending on the percentage voted by the town. These statistics demonstrate that the real estate transfer tax would provide a significant source of new revenue for both housing and open space/maritime protection efforts. Information on property transfers is shown in Figures IV-A and IV-B.

G. RECOMMENDATIONS

✓ 1. Develop a Comprehensive Housing Program

The town should consider developing a housing program. The program would cover the following issues:

- For whom should an affordable housing program be targeted?
- Are current residents being displaced by the loss of rental opportunities, the conversion of rental units to condominiums, inability to purchase a first home?
- Are existing residents able to maintain their homes and keep up with tax increases?
- Are certain population groups being excluded from the community?

2. Consider the community's stance on condominium conversions.

Identify the issues:

- What impacts have conversions had on the community?
- Are these impacts positive or negative?
 - loss of rental opportunities?
 - creation of more affordable units?
 - creative, adaptive reuse of housing as family size shrinks?
- What amount of additional conversion might be likely?
- Given that the condominium market has softened recently, should the community consider taking any action?

Based on findings, should Marblehead examine local options to control future conversions?

Does the community have the authority to take any action?

What would conversion regulations accomplish?

Consider the adoption of appropriate regulations.

3. Consider the development of a housing program to address the needs of the community's elderly.

Will the number of elderly units available through the housing authority be adequate?

Do elderly residents who would prefer to remain in their homes need either financial or social service support?

How could the community develop a program to address their needs?

Allow accessory apartments?

Allow home sharing?

Create a matching program for elders to share their homes.

✓ 4. Examine ways to produce new housing for low- and moderate-income households.

Develop new housing on community-owned land. (Site survey now underway)

Convert surplus schools or municipal buildings to affordable housing. Examine alternative forms of tenure to ensure long term affordability of all new units: Community Land Trusts, Cooperatives, Mutual Housing.

Consider the purchase of existing housing.

Determine financial feasibility

Explore funding sources

Adopt an incentive zoning bylaw.

Ensure future residential development includes some proportion of affordable units.

✓ 5. Establish a non-profit housing development corporation.

Identify its purpose or mission.

Produce new housing, guide new development, maintain long term affordability restrictions, housing counseling, manage elderly program, raise funds, receive donations of land or buildings, establish a downpayment assistance program, other?

Examine alternative forms of non-profit organization.

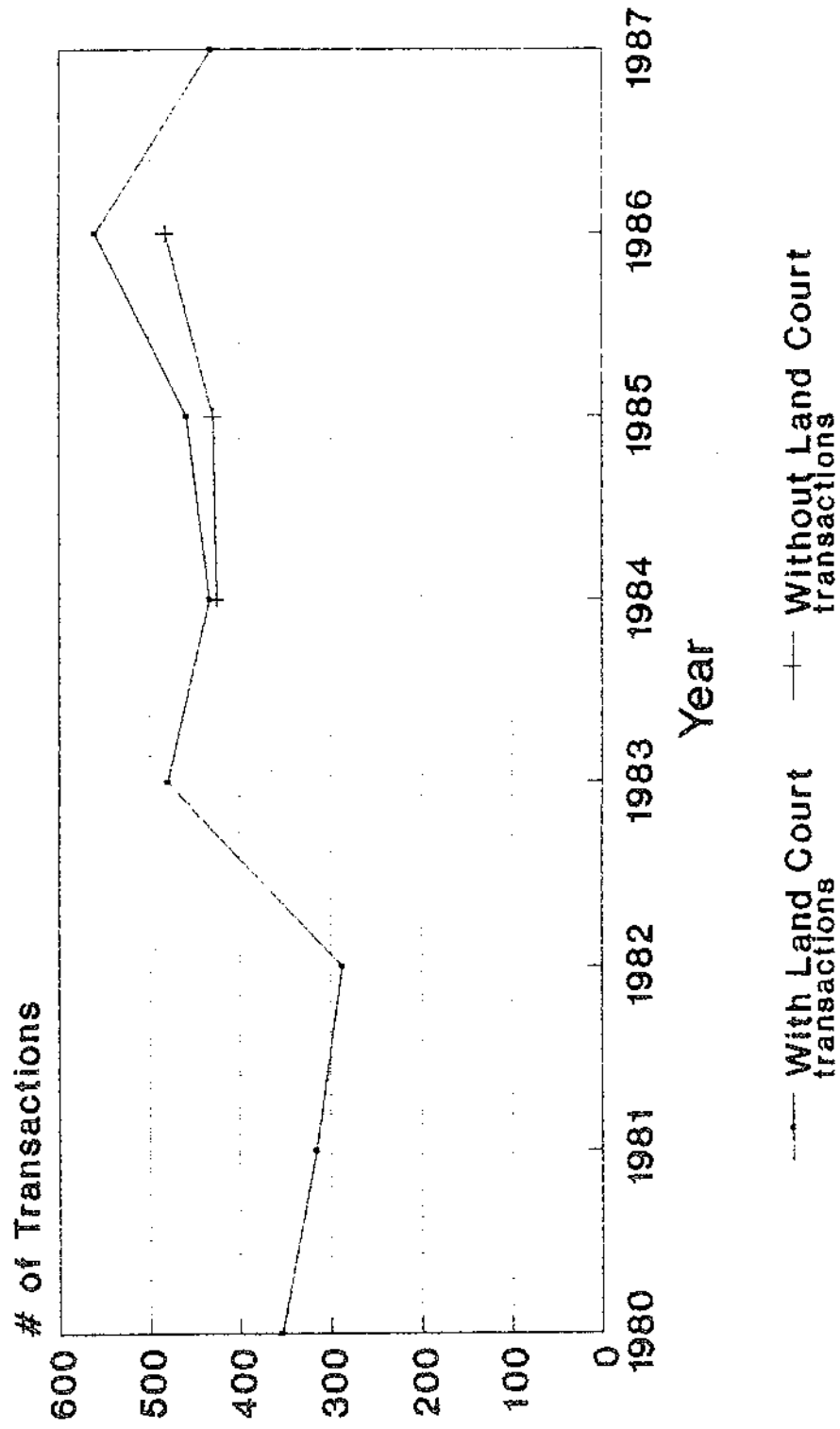
Evaluate effectiveness of forms to achieve local goals.

6. Work Towards Passage of the Marblehead Unique Seaport Trust

Because of the lack of state and federal funds for housing programs, the potential revenue from the real estate transfer tax could play a very important role in funding future housing efforts in the town.

PROPERTY TRANSFERS

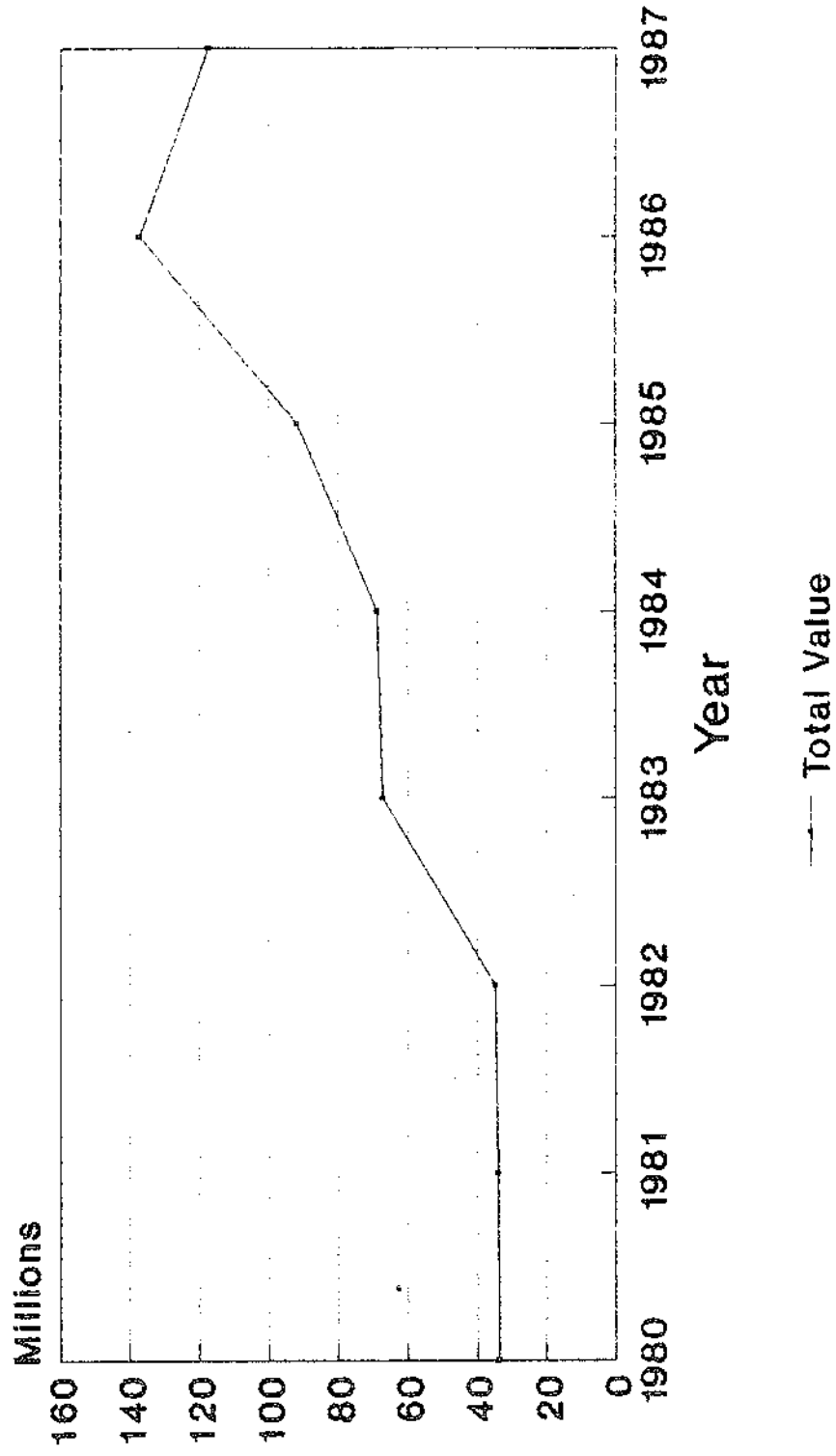
1980-1987 Fig. IV-A



Source: Banker & Tradesman, County Home Data

TOTAL VALUE

Property Transfers Fig. IV-B



Source: Banker & Tradesman, County Home Data

V. TRAFFIC, TRANSPORTATION AND PARKING

A. THE 1970 PLAN

The transportation section of the 1970 plan was developed around two particular events which did not take place. First, the plan is tied to the construction of I-95 through Saugus to Boston, with a new expressway serving Marblehead. Second, the plan emphasizes automobile travel and predicts the demise of the MBTA and, in particular, commuter rail service. The plan provided no alternative future if the opposite were to happen.

B. THE LOCAL STREET SYSTEM

The local street system has not changed substantially since 1970. This is due to the urban nature of the town. However, circulation changes have occurred. The traffic proposal (updated) by Police Lt. Millett documents some proposed changes to the system as it relates to traffic circulation.

C. TRAFFIC GENERATORS

The 1970 plan identified particular locations as being major traffic generators. This detail may not be necessary in future planning. Land use maps should suffice for this type of analysis.

D. TRAFFIC CONGESTION

Most residents probably have strong opinions on traffic congestion based on their own experiences. However, transportation planners generally measure congestion by calculating the Level Of Service (LOS). This requires data on turning movement volumes, the number of lanes at each intersection, sight distance and on-street parking. Calculating the LOS can aid in prioritizing and designing traffic improvements.

E. PARKING

Parking in Marblehead was a problem in 1970 and remains a problem in 1989. It has been recommended on numerous occasions that the only solution is to construct an off-street parking facility. Such a facility could address the existing shortage and the need to eliminate on-street parking as the only solution to traffic congestion.

F. PUBLIC TRANSIT

Marblehead is well served by public transit for the commute to and from Boston. This service can also be considered useful for travelling from Marblehead to Salem or Lynn. However, the North Shore is not particularly

well served by transit for the majority of trip-making. This problem has been pointed out on numerous occasions. There appears to be a significant market for service from Marblehead to Peabody, Beverly and Danvers, yet convenient service is unavailable.

Marblehead is served by commuter rail through Swampscott and Salem. While the service is quite frequent, it is often standing room only for commuters from these locations. Commuter parking is a problem on the North Shore rail lines. These two problems discourage greater rail use by Marblehead residents.

G. REGIONAL TRAFFIC CIRCULATION

Marblehead, as a peninsula community, is somewhat constrained. Its primary regional access is provided via Route 114 and Route 129. It has no direct access to the interstate system or to any major arterial roadway.

Route 114 provides access to Route 128, but only after traversing Salem and Peabody. The corridor is extremely congested and is a high priority of the North Shore Transportation Task Force. Pending improvements that will benefit Marblehead along this corridor are the reconstruction of Riley Plaza in Salem and the relocation of Route 114 from Route 128 through Peabody Square and onto the future Bridge Street bypass.

Riley Plaza is expected to be reconstructed in 1989. The alternative Route 114, while not yet formally designated is available for use by commuters. Route 129 provides access through Swampscott and Lynn. This corridor is also heavily congested.

H. RECOMMENDATIONS

✓ 1) Update the Transportation Section of the 1970 Master Plan

The transportation section of the 1970 Master Plan is out of date and in need of complete revision. The purpose of this task is to provide the town with recommendations for improvements to its transportation infrastructure based on current conditions and future trends. There are a number of subtasks required to prepare an update.

a) Develop a Circulation Map

A map should be developed that illustrates the circulation pattern town-wide, or at least for all locations with one-way streets and turn-restrictions. This map should be supplemented with traffic volumes on as many roads as possible and a summary of accident data for street segments.

b) Collect Traffic Volume Data

The traffic volume data may be developed through the collection of peak hour turning movement counts or through 24-hour machine counts. Directions on data collection for both traffic and accidents are available from MAPC. A local scout troop may be able to assist in this data collection as one of their community service projects.

c) Prepare a Pavement Condition Inventory

The final piece of data that is valuable to a community would be to inventory pavement conditions and develop a pavement management program as part of its Capital Improvement Program. MAPC has several documents available on pavement management as well as computer software which will assist in pavement management planning.

d) Calculate Level of Service

If the town chooses to collect turning movement volumes, MAPC can provide a quick analysis of level of service using planning guidelines in the 1985 Highway Capacity Manual. The town would need to provide MAPC with the number of lanes at the intersection for each approach, identification of on-street parking and any sight distance restrictions.

e) Prepare the Final Plan - The transportation section of the Master Plan would be prepared using the outline described below.

2) Participate in the North Shore Transportation Task Force - Marblehead should continue its participation in the North Shore Transportation Task Force's efforts to develop regional transportation priorities.

Outline for Transportation
Section of Master Plan

I Existing Conditions

A. Street Network

1. Volumes
2. Accidents
3. Capacity Analysis
4. Pavement Conditions

B. Transit Network

1. Bus Service
2. Rail Service

C. Parking Supply

D. Regional Transportation

II Recommendations

- A. Street Network
 - 1. Safety Improvements
 - 2. Capacity Improvements
 - 3. Pavement Management Program
- B. Transit Network
 - 1. Bus Service
 - a. Commuter Parking
 - b. New Services
 - 2. Rail Service
 - a. Capacity Improvements
 - b. Commuter Parking
- C. Parking Supply
 - 1. Off-Street Parking Facility
- D. Regional Transportation
 - 1. New Transit Services
 - 2. Improved access to Route 128, Route 1 and Interstate 95
 - 3. Improved access to Lynn, Salem, Peabody and Beverly

VI. ECONOMIC BASE

There are two approaches to presenting and analyzing economic data. The first gives data on the types of jobs found in the town. The second approach looks at the employment of residents of Marblehead regardless of where they work.

A. EMPLOYMENT IN MARBLEHEAD

The data in Table VI-A represent the number of people employed in Marblehead in various categories for 1980, 1985 and 1987 (the most recent year for which data are available). These are jobs located in Marblehead but not all of these jobs are held by town residents. These numbers represent average annual employment.

TABLE VI-A
EMPLOYMENT IN MARBLEHEAD

EMPLOYMENT SECTOR	1980	1985	1987	% Change 1980-1987
Government	943	859	780	-17
Agriculture	19	38	38	100
Mining	0	0	9	
Construction	116	155	184	57
Manufacturing	710	613	447	-37
Transportation/Utilities	137	158	111	-19
Wholesale/Retail Trade	1335	1278	1323	-1
Finance, Insurance				
Banking, Real Estate	203	320	428	110
Services	882	1342	1514	72
TOTAL	4345	4763	4834	11

SOURCE: Massachusetts Division of Employment Security

Total employment in Marblehead in 1987 was 4,834 persons. The service sector had the most number of people employed and represented 31% of all employment. Wholesale and retail trade was the next highest category. Total employment increased by 11% over the seven years. There were several significant shifts in employment. The financial services category and the general services category both saw large increases (110% and 72% respectively). Manufacturing jobs declined by 37%.

B. EMPLOYMENT OF MARBLEHEAD RESIDENTS

In 1980, 10,051 Marblehead residents, 16 years and older, were employed. This represented 64.8% of the total population. Table VI-8 shows the percentage of employed residents in each of 14 categories. When the subcategories within professional and related services are totaled, 26.1% of all Marblehead residents are employed in professional occupations.

Of all employed Marblehead residents in 1980, 28% worked in town. Private automobile was the most common means of transportation with 81% of all residents commuting by car. Only 6.4% of Marblehead residents commuted by public transportation.

TABLE VI-B
EMPLOYMENT OF MARBLEHEAD RESIDENTS- 1980

Industry Sector	% of the Labor Force
Agriculture, forestry, fisheries, mining	0.5
Construction	4.1
Manufacturing:	
Nondurable goods	7.0
Durable goods	10.3
Transportation, communications and utilities	8.0
Wholesale Trade	5.5
Retail Trade	15.6
Finance, insurance and real estate	9.3
Business and repair services	6.1
Personal, entertainment, and recreation services	2.6
Professional and related services:	
Health services	9.9
Educational services	9.0
Other professional and related services	7.2
Public Administration	4.9

SOURCE: 1980 U.S. Census

C. THE ECONOMY OF THE HARBOR

The importance and strength of the harbor to the economy of Marblehead is changing. While boating and fishing have always been a major component of the economy, their importance and strength is changing as land values rise and residential development of the harborfront continues to grow.

The "Marblehead Waterfront Study" prepared by the SEAREACH Corporation in 1981 took a more detailed look at the economics of water-dependent uses in the harbor. The report summarizes the impacts and returns from water-related uses as follows:

Returns from both recreational boating and commercial fishing amount to approximately \$12.8 million. Returns from recreational boating amount to approximately \$10.3 million. While most of this amount is generated in Marblehead itself, a large percentage of the dollar return from recreational boating and sailmaking goes outside of the Town as sales or through distant business subsidiaries of Marblehead firms. Much of the value from Marblehead fishing remains in the Harbor area as salaries, but less than one third of the potential market value from Marblehead fishing products remains in Town. The majority of the economic value is generated by processors and distributors in major fishing market centers such as Gloucester and Boston...The economic return coming directly to Marblehead from commercial fishing activities, however, amounts to over \$2.5 million annually-- a substantial sum. (The Marblehead Waterfront Study, Page 2-1).

The report also analyzed the future economic potential for water-related uses.

Commercial Fishing - At the time the report was prepared, most fishing in Marblehead was inshore fishing. The report predicted moderate growth. There is the potential for attracting offshore fishing boats due to the location between Gloucester and Boston. However, this potential is constrained by the lack of land for the necessary on-shore support facilities.

Recreational Boating - The greatest economic returns in recreational boating come from sailmaking and new and used boat sales. Based on national and regional trends, the report predicted an annual growth rate in recreational boating of 5-8%. The ability of Marblehead to profit from growth in recreational boating is dependent on the availability of support services. There is very little land left for storage, launching or tie-ups.

VII SCHOOLS

A. SCHOOLS AND ENROLLMENT IN 1970

At the time the 1970 Comprehensive Plan was written, Marblehead had seven elementary schools, a junior high school, a senior high school and one parochial school. Elementary school enrollment was 2,270 pupils. The junior high had 1,128 pupils and the senior high school enrollment was 998 for a total public school enrollment of 4,396.

The Comprehensive Plan reviewed the recommendations of two previous reports and identified two major proposals:

- a) Create a middle school.
- b) Replace the Gerry-Roads-Story elementary schools with a consolidated school.

B. CHANGES IN SCHOOL FACILITIES

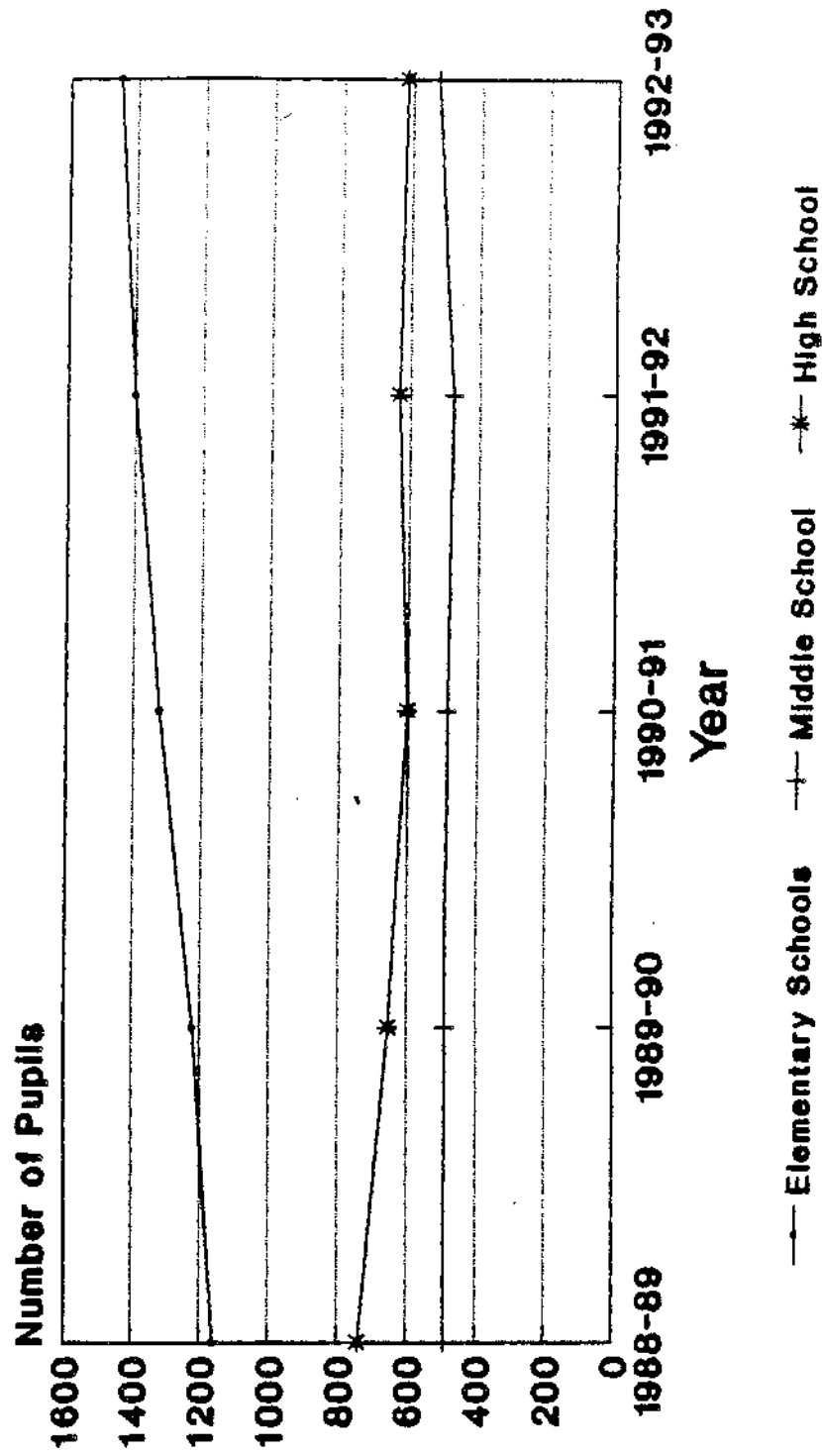
Since the 1970 Plan two elementary schools; the Story school and the Roads school, have been closed. The two schools were turned back to the Board of Selectmen for disposition. The Story school was sold to a developer and converted to private housing. The Roads school was converted to elderly housing. The Star of the Sea school, a parochial school run by the Archdiocese, was closed in the early 70's and leased by the School Department until 1976. The building is now a community center run by the parish. The Junior High School was converted to a Middle School. There were major additions to the High School made during the period 1976-1979. A building committee will be studying future space needs in the elementary schools during 1989.

C. SCHOOL ENROLLMENTS

Between 1969 and 1987, public school enrollment declined by 45%. However, over the past three years enrollment in the elementary schools has been increasing. Enrollment in the Middle School has been stable and high school enrollment, which had been decreasing, has stabilized. The School Department has been using the NESDEC (New England School Development Council) enrollment projections and has found them to be reliable. Figure VII-A show the NESDEC projections through 1992-1993. These projections show the elementary school enrollment will increase steadily, middle school enrollments will increase towards the end of this time period and high school enrollment will decrease.

FUTURE ENROLLMENT

Figure VII-A



Source: New England School Development Council

D. RESERVE LAND HELD BY THE SCHOOL COMMITTEE

The School Committee has four sites totaling approximately 65 acres held in reserve for future building needs:

Sevinor - A 30 acre parcel which houses the school department building.

Byors Property - A 7 acre parcel on Durwich Street adjacent to the Middle School.

Lincoln Avenue - A parcel adjacent to the Reynold's Playground.

Green Street - A parcel at the intersection of Green Street and West Shore Drive.

Five separate committees have studied alternative uses for these four parcels. A report was produced in 1986. The report recommended that the Lincoln Avenue parcel be returned to the jurisdiction of the Board of Selectmen because it had the least potential for future school use. There are no plans at this time to convert any of these sites to alternative uses, given that enrollments are increasing. The parcels are being used for recreational purposes under cooperative agreements with the Parks and Recreation Department and the Conservation Commission.

VIII. PUBLIC AND PRIVATE COMMUNITY FACILITIES

A. TOWN OFFICES

Marblehead has long had a need for additional space to house town offices. In addition to requiring more space, many departments would benefit from being in close proximity to other town departments. This would expedite communications and also enable offices to share support services. The majority of town offices currently are in Abbot Hall or the Sewall Building. There is currently a Municipal Office Study Committee. The committee is studying the potential for using the former Mary A. Alley Hospital for municipal offices. The hospital building now houses the Board of Health and the Inspector of Buildings.

B. POLICE AND FIRE FACILITIES

Police Department - The Marblehead Police Department is located on Gerry Street. The current staff consists of 43 full time police officers, 20 part-time officers (5 or 6 are usually working on a regular basis), one full time administrative assistant, the Police Chief, two part-time clerks and one maintenance worker. There is a need for three additional full time officers.

The Police Department is in need of approximately 50% more space to accommodate needs such as property storage, garaging, and locker room space. A Building Study Committee was formed three years ago to review the space needs and an architect drew up preliminary plans. Expansion on the current site is possible and would require that the space occupied by the adjacent Wire Inspector's building is utilized when that building is phased out as planned. The space needs of the police department will be studied as part of the town-wide municipal office study.

Fire Department - The Marblehead Fire Department consists of two stations, 46 men and five pieces of equipment (3 pumpers, one reserve pumper, one ladder truck). The headquarters is on Ocean Avenue at Pleasant Street. There is some room for expansion at this site. The second station is on Franklin Street. The building is over 100 years old and there is no room for expansion. There is no on-site parking and parking on the street is difficult to find. The Board of Selectmen purchased a site on Cressy Street to be used for a fire station but cost constraints have prohibited relocating the station to this site. At this time there is no need for additional equipment but another eight firefighters would be desirable.

C. MARY A. ALLEY HOSPITAL

This 37 bed hospital closed on December 3, 1986, due to the changing demographics and the economics of health care. The Ambulatory Health Care facility remains open. The building will be used for town offices and currently houses the Inspector of Buildings and the Board of Health.

D. SAMUEL HOBBS MEMORIAL

The Samuel Hobbs Memorial is a three story residence on Clifton Street which was bequeathed to the town and saw limited use as a meeting place for community groups. It now houses the Community Counseling Center.

E. ABBOT PUBLIC LIBRARY

The Abbot Public Library is currently undergoing a much-needed expansion. The current construction will increase the space by two-thirds.

F. MUNICIPAL GARAGE

The municipal garage is located on Tower Way off of Village Street. It houses all vehicles belonging to the Water and Sewer Department, the Highway Department, the Town Engineer and the Health Department. There is currently enough space for most vehicles and some possibility for expansion behind the garage. There are several other departments which have their own garages and the consensus is that the town should work towards having a consolidated garage.

G. OLD TOWN HOUSE

The Old Town House, located on Washington Street, houses the Veteran's Agent and the Dog Officer. It also contains a meeting room and a small museum.

H. PRIVATE ORGANIZATIONS

Star-of-the-Sea School - This is no longer being used as a school but has been converted to a community center.

The Tower School - This private school is still in operation.

The Hillel Academy - This is another private school.

IX. PUBLIC AND PRIVATE RECREATION AND OPEN SPACE

A. OPEN SPACE AND RECREATION IN THE 1970 PLAN

As of 1970, there was a total of 171.8 acres of open space and recreation lands. This acreage was broken down into 24 acres of land under the jurisdiction of the Conservation Commission, 7.8 acres of beach property, 43 acres of parks, 32 acres of school property, 28 acres devoted to playgrounds and 37 acres of quasi-public land.

B. THE 1980 OPEN SPACE PLAN FOR THE TOWN OF MARBLEHEAD

Introduction - In 1988, the Conservation Commission, the Recreation and Park Commission and the superintendent of the Recreation and Park Department worked together to develop an updated open space plan. The purpose of the plan was to guide the townspeople and various town commissions in short and long-range planning for open space and recreation and to fulfill the requirements of the Commonwealth's Division of Conservation Services in order to be eligible for funding programs. At this time, the plan has been submitted to the Division of Conservation Services and is still under review.

The town is in the process of undertaking a joint venture with the City of Salem to acquire thirty acres (in three parcels) of adjoining property in both municipalities along the Forest River estuary. One parcel is along the estuary and the other two are on Leggs Hill Road. The land abuts existing conservation land and aquifer protection land owned by Salem.

Summary of Open Space and Recreation Lands - Table IX-A provides a summary of the open space and recreation sites. Marblehead has approximately 296 acres of publicly-owned open space and recreation and an additional 64 acres of quasi-public open space. This represents a very healthy increase of 188 acres over eighteen years.

The Five Year Action Plan - The goals and objectives of the 1988 Plan have been grouped into four categories: acquisitions and funding, programs, operations, water quality control and supervision. The Five Year Action Plan contains many recommendations for open space and recreation improvements through 1992. The major actions recommended in the plan are repeated below:

- 1) To investigate the feasibility of the acquisition of lands under the control of various commissions including undeveloped School department and Board of Health lands.
- 2) To pursue acquisition of lands abutting conservation lands to link conservation areas, provide access to the Harbor and tidal areas and access to streams and ponds.

OPEN SPACE AND RECREATION SITES
TABLE IX-A

NAME OF SITE	ACREAGE
CONSERVATION COMMISSION	
Forest River	26.00
Hawthorn Pond	9.79
Ram Island	5.50
Steer Swamp	43.50
Ware's Pond	8.50
Wyman Woods	33.50

Total for Cons. Comm.	126.79
RECREATION/PARK COMMISSION AND SCHOOL DEPARTMENT LANDS	
Parks and Recreation Sites	
Chandler Hovey Park	3.74
Castle Rock Park	1.20
Seaside Park	33.70
Crocker Park	2.82
Fountain Park	0.63
Redd's Pond	1.81
Fort Sewall	2.50
Lincoln Avenue	6.50
Memorial Park	0.32
Railroad Wye Pond	1.09
Village St. Recreation Area	0.90
Sevinor Site	33.29
Beacon Street Site	5.70
SUBTOTAL	94.20
Playgrounds	
Orne Playground	5.22
Reynold's Playground	5.45
Gatchell Green	2.50
Gatchell Playground	8.33
Hobb's Playground	1.14
Gerry Playground	6.85
SUBTOTAL	29.49

OPEN SPACE AND RECREATION SITES
TABLE IX-A

NAME OF SITE	ACREAGE
Schools	
Gerry	1.50
Coffin	1.50
Glover	4.30
Eveleth	3.50
Middle	16.00
Senior High	2.00
Bell	6.60
SUBTOTAL	35.40
BEACHES	
Devereux	5.48
Riverhead	1.65
Gashouse	
Fort Beach/Lovis Cove	2.87
Grace Oliver's	0.80
TOTAL	10.80
PRIVATE/NON-PROFIT	
Brown's Island	5.00
Goldthwaite Reservation	14.00
Audubon Sanctuary	16.00
Cat Island	29.00
TOTAL	64.00
TOTAL OPEN SPACE AND RECREATION	360.68

- 3) To continue the program of trail review and improvement, prevent erosion and vandalism.
- 4) To encourage water conservation.
- 5) To work with the City of Salem to maintain and enhance water quality in Thompson Meadow and Legg's Hill.
- 6) To commence the environmental study of Marblehead waters.
- 7) To negotiate with members of the private sector for the acquisition of lands on the seashore and tidal areas by acquisition, easement or restriction.
- 8) To expand the review of the acquisition of lands constituting the emerald necklace to the areas adjacent to Steer Swamp, Beacon Street, West Shore Drive, Ware's Pond and the Forest River.
- 9) To establish a composting area for leaves and seaweed.
- 10) To create a community clean-up program of hazardous waste each year.
- 11) To update the Conservation Land Guide.
- 12) To commence a pond-dredging survey for Flagg and Ware Ponds.
- 13) To work with the Division of Fisheries and Wildlife to enhance and develop wildlife habitat areas.
- 14) To make specific improvements to parks as noted in the plan.

C. SUBREGIONAL COMPARISON OF OPEN SPACE

MAPC conducted an open space survey during 1988 and prepared an analysis of this data on a subregional basis. Marblehead is a member of the MAPC subregion known as the North Shore Transportation Task Force. Figures IX-B, C and D compare Marblehead's open space and recreational acreage to the other fourteen municipalities in the subregion. Marblehead ranks seventh in the amount of recreational land, ninth in conservation land and sixth in open space and recreation as a total of the municipality's acreage. As can be seen from Figure IX-D, there is a wide variation in the percentage of open space throughout the subregion. This is due to many factors including the rate of development, presence of state or federal parks, fiscal constraints and geography.

D. MARBLEHEAD UNIQUE SEAPORT TRUST

One method of financing the preservation of open space and the creation of affordable housing which has gained a great deal of attention over the past three years has been the real estate transfer tax (also known as the Land Bank Bill) . Many municipalities have filed petitions with the state legislature to allow such a tax but none have been acted on (except for Martha's Vineyard and Nantucket) pending passage of statewide enabling legislation. Marblehead has taken the real estate transfer tax concept and tailored it to reflect the maritime heritage of the town.

In 1987 the Marblehead Unique Seaport Trust Committee was created to draft legislation to carry out this concept. The preamble to the legislation states that the purpose of the trust is to " preserve and promote Marblehead's maritime heritage and its recreational and commercial marine facilities." The Trust would be funded by a one percent tax on property transfers and 25% of the funds would be earmarked for affordable housing. The town is working with legislators to expand the language of proposed state enabling legislation to include maritime resources within the definition of resources to be protected.

E. STATE OPEN SPACE PLANNING PROGRAMS

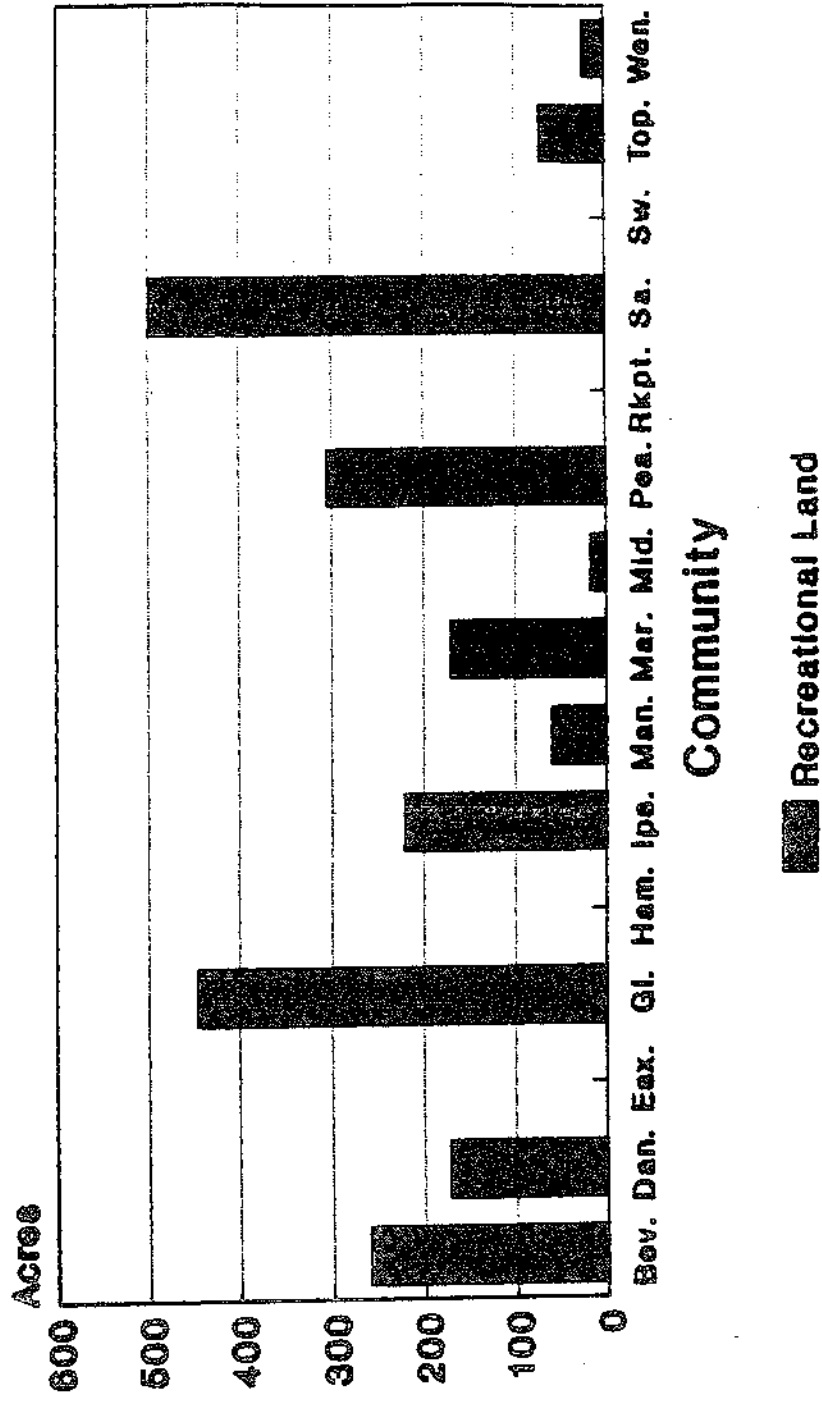
There are many state programs which are relevant to open space and recreation planning. A comprehensive list of these programs can be found in the SCORP Plan.

The SCORP Plan - The 1988 Statewide Comprehensive Outdoor Recreation Plan (SCORP) has recently been completed. This plan is the state's five year plan for open space and recreation. It includes a wealth of information on supply and demand for recreation and open space and techniques for protecting open space. It also has a section on the state's goals and objectives and a description of many state programs. Any future open space planning undertaken by the town should make use of the information in this plan.

The Open Space Element of the Statewide Geographic Information System (GIS) - The state is currently developing a computerized natural resource database and information system known as the MASS-GIS. The Executive Office of Environmental Affairs (EOEA) has started to compile an open space data layer to be included in the database. The state is seeking the cooperation of each community in compiling this information at the local level. The open space data layer is described in detail in Volume II of the SCORP Plan. The town should be aware of this project if it plans to do any mapping of open space in the future.

NORTH SHORE SUBREGION

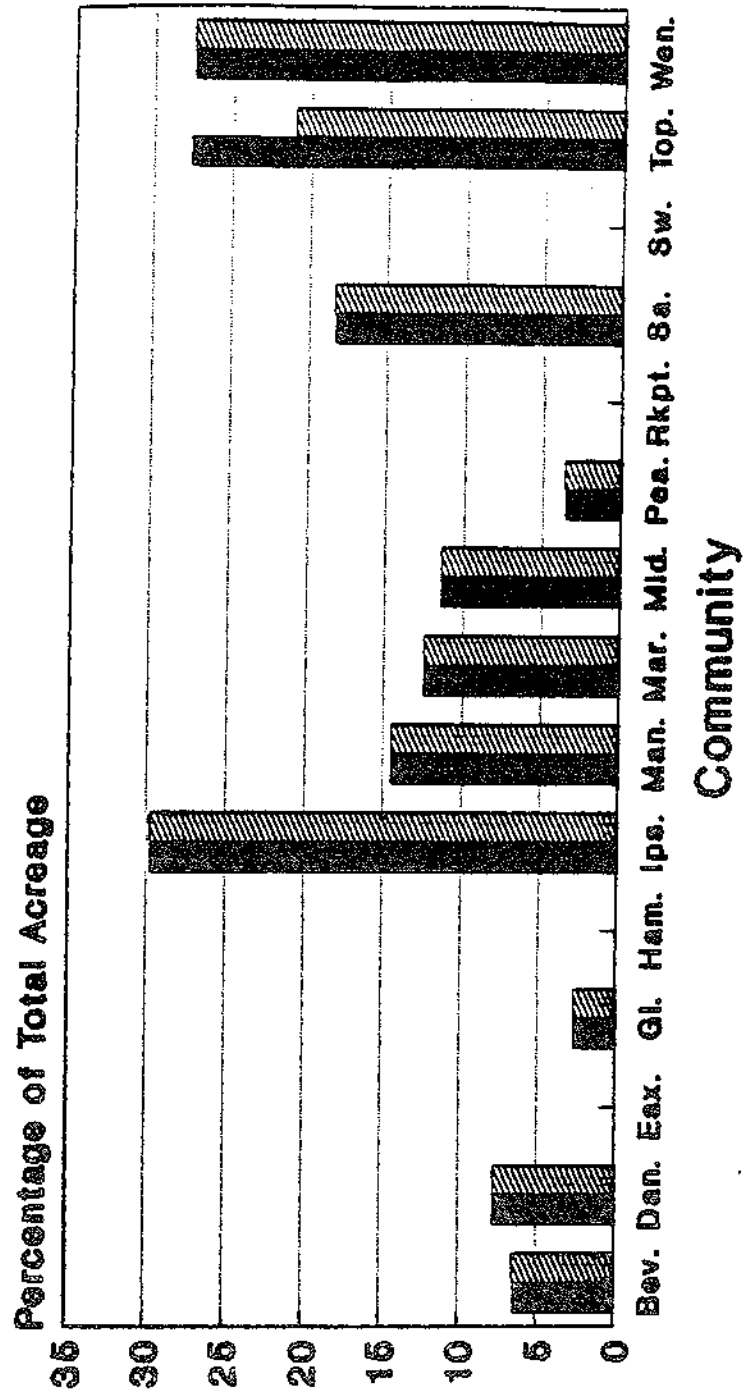
Recreational Land - Fig. IX-C



Source: MAPC Open Space Inventory 1988

NORTH SHORE SUBREGION

% of Open Space - Fig. IX-D



Excludes all land under Chapter 81, 81A, 81B

Source: MAPC Open Space Inventory 1988

X. PUBLIC UTILITIES

A. SOLID WASTE

Past Disposal Practises - Until 1975, the town disposed of solid waste at a municipal incinerator. The incinerator was shut down in 1975 because it did not meet federal air quality emissions standards. After the incinerator shut down the town contracted with the waste disposal firm, SEA, Inc. for disposal at a landfill.

Current Waste Disposal - In 1984 the town began to send its waste to the RESCO facility in Saugus. The town purchased the transfer station located at West Shore Drive and Green Street from SEA, Inc. and purchased trucks for transporting the waste directly to RESCO. The town handles curbside collection as well.

The town is in the fourth year of a ten year contract with RESCO. The contract allows for the disposal of 18,600 tons per year. The cost per ton in 1987 was \$20.49. The 1987 figures for waste disposal are as follows:

Municipal Collections	8,721 tons
Commercial and Non-household waste	9,056 tons
TOTAL	17,777 tons

This represents a decrease of 2.8% from 1986. In 1987, 853 tons of waste were recycled.

Recycling - The town has a mandatory recycling bylaw. Collection of recyclable materials takes place at the curbside and includes bottles, cans, newspapers and waste oil. The bylaw states that recycling is at the discretion of the Board of Health due to fluctuations in the market for recyclable materials. Besides market fluctuations, another major factor in the cost-effectiveness of the recycling program is the high cost of transporting materials due to Marblehead's relative geographical isolation. The town also has a leaf composting program.

Household Hazardous Waste - To date the town has not held any household hazardous waste collection days although there has been some interest. This is due in part to concern over liability issues and the difficulties involved in organizing an efficient program.

The Future of Waste Disposal - The RESCO facility is the oldest waste-to-energy plant in the state and by 1993 will have been in operation for twenty years, bringing it to the end of its design life. However, it is possible that the plant will continue to operate beyond that time. The

continuation of waste-to-energy plants is consistent with the draft State Solid Waste Management Plan which is expected to be finalized within a year. The plant may need to be shut down at some point for improvements to bring the technology up to date, increase efficiency and possibly to expand the capacity. This is likely to increase the per ton cost for future contracts.

The state's Solid Waste Management Act, passed in 1987, requires a municipality to prepare a solid waste management plan if the town applies for state funding for solid waste facility construction projects.

B. SEWAGE DISPOSAL

Prior to 1978, sewage was not treated and was disposed of through an ocean outfall pipe. In 1978, Marblehead began sending its sewage to the South Essex Sewerage District treatment plant in Salem where it receives primary treatment only. The South Essex Sewerage District is currently in the process of siting a secondary treatment plant. Sewerage is available to the entire town and all but 100 houses are connected. The remainder are still using septic systems.

The town disposes of a yearly average of 2.3 million gallons per day (MGD). The town has an allocation of 6 MGD of capacity at the plant. This is sufficient capacity for all current and foreseeable future needs. An infiltration/inflow study is underway to detect leaks in the system and there is an active five year program for repairing and replacing old lines. At this point there are no critical problem areas.

C. WATER SUPPLY

Marblehead receives its water from the Massachusetts Water Resources Authority (MWRA) and there is no contractual limit on the amount of water the town is entitled to. Marblehead faces a rate increase of 26% for the next fiscal year. The water department has a five year master plan for replacing old water mains and increasing pipe diameters to provide higher water pressure.

D. MUNICIPAL LIGHT COMPANY

The Marblehead Municipal Light Company was established in 1894. It owns and operates an electric light plant which is located on the harbor at Commercial Street. The plant is diesel powered. There are also two substations; one on Village Street and one on Beach Street. As of 1987 there were 9,698 metered customers amounting to 84,416,843 kilowatt hours of electricity. The light company is in the process of installing a computerized load management program and is upgrading the plant from five to six megawatts. Growth in electrical demand has been approximately 3% per year.

E. GAS SERVICE

The majority of the town is served by the Boston Gas Company. A portion of the town in the vicinity of West Shore Drive and Beacon Street and the Naugus Head section of town is not served. Representatives from Boston Gas Company indicate that service could be made available to this area although the cost would be significant. This is due to the presence of ledge and the fact that all other utilities are in place, thus requiring streets to be dug up again in order to install gas lines.

F. RECOMMENDATIONS

- 1) Conduct a public education program on household hazardous wastes - There are many pamphlets available on household hazardous wastes. As a first step in educating residents, the town should consider mailing one of these pamphlets to every household. MAPC can assist in locating and evaluating which material is most relevant.
- 2) Consider the development of a regional collection center - Many communities have held once a year household hazardous waste collection days for their residents to encourage the safe disposal of household hazardous wastes. The state has supported these collection days as a beginning step but is now looking for more innovative approaches to the problem. State funding may be available for regional collection centers. Marblehead should consider meeting with the Health Departments of surrounding communities to discuss the possibility of developing such a regional collection center.

XI. PRINCIPAL BUSINESS DISTRICTS

A. RETAIL TRADE

The total number of retail establishments has not changed significantly over the years although there have been some shifts in the type of retail trade. There was a 73% increase in the number of eating and drinking places in town (indicative of the importance of tourism in Marblehead) and a 44% decrease in the number of food stores. Most other categories remained relatively stable.

TABLE XI-A
RETAIL TRADE ACTIVITY

Trade Classification	Establishments with Payroll			
	1958	1963	1967	1982
Building Materials, Hardware	4	8	7	8
General Merchandise	3	1	7	0
Food Stores	27	25	18	15
Automotive Dealers	7	5	12	10
Gasoline Service Stations	9	11	12	6
Apparel, Accessory Stores	12	11	13	13
Furniture and Home Equipment	7	3	6	7
Eating and Drinking Places	19	23	19	33
Drug and Proprietary Stores	4	5	6	4
Miscellaneous Retail Stores	38	39	47	34
TOTAL	130	131	147	130

SOURCE: 1980 Census of Retail Trade, U.S. Bureau of the Census

B. TOURISM/RECREATION

As noted in the Marblehead Waterfront Study, most retail uses in town are partially dependent on tourism. It is estimated that approximately 60,000 people per year visit the Spirit of '76 at Abbot Hall and the Fourth of July Arts Festival attracts 50,000 people in one weekend. Most visitors to Marblehead stay for a day only due to the lack of overnight accommodations. Parking for restaurants and shopping is also limited and constrains the potential for increasing tourism.

C. BUSINESS DISTRICT IMPROVEMENTS

The major improvement needed in both business districts remains the same as it was in 1970; parking. An article in support of building a parking garage has been voted down twice in Town Meeting. A parking garage could provide much needed parking space but could also increase congestion on the roads by encouraging more cars to enter the downtown area.

XII. URBAN DESIGN STUDY

A. THE 1970 COMPREHENSIVE PLAN

The urban design chapter in the 1970 Comprehensive Plan focused on two separate design elements; the Harbor-oriented activities and, the town-owned abandoned railroad right-of-way. The chapter discussed the man-made and natural features that make up Marblehead's distinctive character. The majority of these design elements have not changed much. This chapter will summarize the current status of these design features and of the varied issues covered in this chapter of the 1970 Plan.

B. URBAN DESIGN ISSUES IN 1989

Leggs Hill- Forest River - The 1970 Plan discussed the environmental features and options for development of this area. The Conservation Commission is currently in the process of negotiating the acquisition of 30 acres of land along the Forest River Estuary and on Leggs Hill Road.

Sevinor Land - Development options for the Sevinor property were also discussed. A portion of this site was acquired by the School Department. It is being held in reserve for future use for a school site. In the interim, it is being used for recreation purposes.

Cluster Zoning - The 1970 Plan recommended that Marblehead adopt a cluster zoning bylaw to allow more flexible development options and to preserve open space. A cluster zoning bylaw was proposed at town meeting several years ago but was defeated.

Housing for the Elderly - The 1970 Plan anticipated that land values and the lack of suitable sites would necessitate the construction of elevator apartment buildings to provide elderly housing. The Housing Authority has added 88 units of elderly housing since the 1970 Plan.

Historic Districts - There are two historic districts in Marblehead; the "Old Town" district and Gingerbread Hill. The Old and Historic Districts Commission was formed in 1967 to oversee all exterior architectural changes. There is also a separate Historical Commission, established in 1964, to preserve and develop the historical aspects of the town.

Bicycle Trail - The 1970 Comprehensive Plan discussed the potential conversion of the abandoned Boston and Maine Railroad right-of-way to use as a bicycle trail. This conversion has been accomplished. The right-of-way is owned by the town and is under the jurisdiction of the Sewer Department and Municipal Light Department. The trail is four miles long and 40 feet wide. The surface is gravel and stone dust. The path connect three conservation areas (Ware Pond, Hawthorn Road and Wyman Woods. The path is used for walking, jogging, bicycling, horseback riding, cross-country skiing and nature study.

Conservation Programs - The 1970 Plan discussed the importance of an active program of land acquisition in preserving the unique environmental characteristics of Marblehead. The Conservation Commission has been very active and has added 188 acres of conservation land since 1970.

Riverhead Beach - The 1970 Plan presented a scheme for extensive recreational developments at Riverhead Beach including a marina, boat launch ramp, swimming pool and harbor-front promenade. There is a boat ramp but none of the other improvements were undertaken. There had been a proposal for siting a sewage treatment plant on one portion of the site but this never occurred because Marblehead joined the South Essex Sewerage District.

Community Appearance - The 1970 plan noted that Marblehead has always set a high standard in community appearance. The importance of maintaining the appearance of all types of development is still a concern. In 1988 the Planning Board published a document entitled "Applying for a Special Permit under the Site Plan Review Process in Marblehead with Design Guidelines." This publication discusses the application procedure as well as design guidelines for waterfront areas, view corridors, public spaces, landscaping, walkways, parks, storefronts, signs, site layout, outdoor lighting, residential building facades, historic preservation, fences and maintenance. This document presents sound design guidelines which can be applied to any type of renovation or new construction regardless of whether a special permit is required.

C. RECOMMENDATIONS

1) Distribute Site Plan Review Brochure

The brochure "Applying for a Special Permit under the Site Plan Review Process in Marblehead with Design Guidelines" contains a wealth of information on design issues. This brochure should be given a wide distribution, particularly within the business community.

2) Resubmit Cluster Bylaw to Town Meeting

Many towns have found that having a cluster bylaw allows for more creative subdivision options. Although there are few large tracts still to be developed in the town, having a cluster bylaw would give developers an option to a standard subdivision.

XIII. THE MARBLEHEAD HARBORFRONT

A. INTRODUCTION

The 1970 Comprehensive Plan did not include a separate chapter devoted to harborfront issues. The decision to include such a chapter in the updated master plan is in recognition of the importance of the harbor to the economy and quality of life in Marblehead. This chapter will summarize the issues and planning efforts related to the harborfront.

B. THE MARBLEHEAD WATERS AND SHORELINE STUDY

In 1977 students from the Harvard Graduate School of Design's Community Assistance Program prepared the Marblehead Waters and Shoreline Study. A copy of this study has been attached as Appendix C. The study identified six issues of concern and seven policies related to the waters and shoreline uses. The seven policies which the study recommended are as follows:

- 1) Ensure that all town-level decisions consider Marblehead waters and shorelines through recommendations from an established regulatory body capable of problem-solving and solution implementation.
- 2) Secure and promote water-dependent development -- especially marine services.
- 3) Ensure and promote fishing/lobstering as an industry and attraction.
- 4) Encourage water and shoreline uses that preserve the natural amenities, protect marine ecosystems, and enhance the cultural heritage of Marblehead.
- 5) Clearly define and secure existing areas for public use of waters and shorelines.
- 6) Enforce state Coastal Zone Management policies for the waters and shorelines.
- 7) Develop design standards for review of all developments and improvements of the waters and shorelines in compliance with the aesthetic quality of a "natural shoreline".

The study also made the following recommendations for future actions.

- 1) Marblehead Waters and Shorelines Commission - The study recommended that a Waters and Shorelines Commission be established. The Commission would serve to identify problems, manage and coordinate public and private improvements and would have permitting authority within the area of jurisdiction.

E. MARBLEHEAD UNIQUE SEAPORT TRUST

The concept of the real estate transfer tax as a method of funding the preservation of open space and the creation of affordable housing was discussed in the chapter on open space. The Trust would be funded by a one percent tax on property transfers and 25% of the funds would be earmarked for affordable housing. The remainder of the funds would go towards preserving Marblehead's maritime heritage.

F. THE HARBORS AND WATERS BOARD

In 1965, the Board of Selectmen created the Harbor Advisory Committee. This committee was dissolved in 1979 and the Harbors and Waters Board was established. The Harbors and Waters Board is appointed by the Board of Selectmen. The Harbormaster reports to this board. The Board and Harbormaster are charged with overseeing many activities in the harbor including the issuance of mooring permits and rescue operations.

G. SEA LEVEL RISE

Any master plan for a coastal community must take into account the potential loss of shoreline areas. This problem has also been termed coastal upland retreat. The loss of upland areas in a coastal community is a complex issue. It is caused by a combination of active wave-produced erosion, passive loss caused by sea-level rise and land subsidence. The Massachusetts Coastal Zone Management Office prepared a report entitled "Massachusetts Coastal Submergence Program - Passive Retreat of Massachusetts Coastal Upland Due to Relative Sea-Level Rise". The report states that "Relative sea-level rise along the Massachusetts coast over the past 40 years ranges between 2 and 3 millimeters per year. Within recent years, however, a rapidly increasing body of data has appeared in support of the hypothesis that global climatic warming within the next century will cause increasing global sea level rises that can not be ignored".

The report outlines a method used to estimate the area which would be submerged by the year 2025 under three different scenarios. The estimates for Marblehead range from a low of 7.1 acres lost to a high of 24.8 acres by the year 2025.

The report briefly touches on some of the implications of this trend for planning and regulating development in coastal communities. The report urges increased awareness of these issues on the part of planners, politicians and decision-makers but cautions that changes in legislation and regulations would be premature.

Marblehead has received a grant of \$18,000 from the Federal Emergency Management Agency (FEMA) to do a two phase study. The first phase would determine the most likely scenario of rate of sea-level rise and the amount of land area which would be lost over the next fifty years. The second phase would produce a handbook evaluating mitigating measures for structures along the coast and outlining potential planning and regulatory requirements.

H. ZONING FOR WATERFRONT REGULATION

Marblehead has created two zoning districts to regulate waterfront development: the Harborfront District (created in 1978) and the Coastal Overlay District (created in 1987).

The Coastal Overlay District was created as the result of a waterfront building moratorium which was imposed in 1986. A Moratorium Steering Committee was formed and one of the committee's recommendations was to establish a Coastal Overlay District. The Coastal Overlay District is defined as (a) The areas between Mean Low Tide and Mean High Tide (b) all areas seaward of Mean Low Tide (Commonwealth Waters and the Waters of Marblehead) (c) the area lying between the line of Mean High Tide and a line 300 feet upland of the line of Mean High Tide (d) all air space above this area. The Coastal Overlay District allows all uses in the underlying zoning district but requires that any use which is allowed by right in the underlying district is by special permit in the overlay district. This applies to new construction only. Expansion or modification of existing uses does not require a special permit. There are additional criteria for special permits in this district. They include the extent to which the use promotes water-front development and marine services, protection of natural amenities, public access to the waterfront, visual access to the waterfront, and density.

There are three areas designated as Harborfront District including Gerry Island. The Harborfront District restricts the type of residential development and all retail uses are by special permit only except for boat services. Industrial uses are limited to research facilities by special permit.

Figure XIII-A: *Planning Studies and Actions Related to the Harbor*

1965

Harbor Advisory Committee created.

1977

Marblehead Waters and Shoreline Study.

1978

May, Harborfront Zoning District established.

1979

Harbor Advisory Committee dissolved; Harbors and Waters Board created.

1980

Marblehead Waterfront Study—SEAREACH report.

1986

Harborfront Study Committee formed. Waterfront Building Moratorium imposed. Moratorium Steering Committee formed.

1987

Marblehead Unique Seaport Trust Committee formed; legislation drafted and submitted to legislature. Coastal Overlay District approved at Town Meeting.

XIV. IMPLEMENTATION

A comprehensive plan is a useful document for consolidating factual information and recommendations for the future. It does not substitute for action by the various town departments and boards which have jurisdiction over particular recommendations. This final section outlines some additional recommendations for implementation of the plan.

A. RECOMMENDATIONS

1) Annual Long-Range Planning Retreat

Since the 1970 Comprehensive Plan was completed, there have been numerous studies done on various long-range planning issues in the town on an ad-hoc basis. This is a common way of responding to planning issues. Such studies can serve a useful purpose but the proliferation of separate studies can lead to a disjointed planning effort.

MAPC recommends that the Planning Board sponsor an annual long-range planning retreat involving all town boards, departments and non-profit social service agencies. This could take several forms but would most likely be a one-day event with a combination of structured and un-structured time. The purpose would be to provide an opportunity for all departments and groups in town to share their long-range planning concerns and discuss their needs for planning studies. This forum would also provide an opportunity to set priorities for future studies. This would help ensure that scarce funds would be allocated to studies which would be most useful for long-range planning purposes and avoid duplication of efforts.

2) Distribute the Comprehensive Plan

The Planning Board should make a list of all the town boards and departments as well as social service organizations, civic groups and business groups who are involved in decisions affecting growth and land use changes in the town. A copy of the plan should be distributed to all these groups.

3) Keep the Plan Updated

There is no real reason why a comprehensive plan needs to become obsolete. An annual review and update of the plan should be scheduled. New information which has become available during the year can be added to the plan so that it is always current. An example would be the 1990 Census. When the data becomes available, it should be analyzed and incorporated into the comprehensive plan. This could be done in conjunction with the annual planning retreat.

APPENDIX A

DEFINITIONS OF LAND USE CATEGORIES ON THE 1971 AND 1985 LAND USE MAPS

1. Industrial (UI). This is land containing facilities for the manufacture, storage or assembly of products ranging from electronics to chemicals. This land would also typically include warehouses and transportation facilities.
2. Commercial (UC). Commercial land is predominantly used for the distribution or merchandising of goods and services. Typical buildings are not only stores, hotels, offices but also apartment buildings and smaller warehouses set close to streets having a close pattern. In cities, most people not living in residential areas live here.

Commercial also includes modern commercial buildings away from the urban core; it also includes highway "strips" containing gas stations, motels, drive-ins and stores.
3. Multi-Family Residential (R0). Land containing urban apartment buildings, and town or row houses set close to streets having a close pattern. Also included are garden apartments set back from the street and perhaps including attached recreational facilities.
4. High Density Residential (R1). Urban residential land used for homes that are spaced closely, set back from the street, and arranged in orderly rectangular patterns or lots less than 1/4 acre in size. Nearly all street frontage for these building lots is about fifty feet and many of the streets are laid out at 200' intervals; there are about eight dwelling units per acre.
5. Medium Density Residential (R2). Land used for closely spaced homes arranged in orderly curved or rectangular patterns and set on 1/4 to 1/2 acres. Street frontage is typically 100' and there are two to four dwelling units per acre.
6. Low Density Residential (R3). Residential land with lots as small as 1/2 acre but also including large residential estates and very light density forested land with small clearings for the house.
7. Transportation (UT). This category includes divided highways with 200 feet or more of developed right of way width but not smaller roads. Also included are railyards, terminal freight and storage facilities and rail stations. Docks, warehouses and related land-based storage facilities are also included as well as airports and their related facilities.

8. Urban Open or Public (UO). This can be either green space such as parks or open undeveloped land lying idle in the midst of urban areas. It can range from landscaped hospital grounds and colleges to bulldozed rubble.
9. Cropland (AC). Intensive agricultural land that consists of tilled or unused tillable land. The land supporting a farm buildings is included.
10. Pasture (AP). Pasture or abandoned hay fields not suitable for tillage .
11. Woody Perennial - Orchard (WP). This land use category includes nurseries, greenhouses and land adjacent to them as well as land supporting horticultural specialities, ornamentals, shrubs and Christmas trees. Also included are productive cranberry bogs and fruit orchards.
12. Open Land (O). Open land includes abandoned fields and orchards, heath plant communities or moors, open sand areas away from beaches and power-line easements.
13. Forest (F). Land covered by trees taller than 1 foot. Included are both hardwoods and softwoods.
14. Water (W). Lakes, rivers and large streams; water depth is greater than three feet during the growing season. The boundary of coastal water is located by drawing a line across the river mouth to connect the edges of the coastline. Man-made features like roads, railroads or bridges crossing rivers or inlets at or near the coast are used as boundaries for measuring inland water.
15. Salt Marsh (SM). Land type containing tidal salt marsh flooded twice daily and also irregularly flooded salt meadows and ditched salt meadows.
16. Inland wetland (FW). This is a very broad category of fresh water wetland types that includes seasonally flooded basins, bogs, shrub swamps, seasonally waterlogged meadow soils, shallow water-covered marsh, deep marsh and beaver paths. It does not include swamps with trees having a high degree of crown closure - these are categorized as forest.
17. Participation Recreation (RP). This consists of developed facilities such as tennis court complexes, golf courses, skeet shooting and archery ranges, playgrounds and alpine but not cross-country skiing areas.

18. Spectator Recreation (RS). Stadiums are typical examples. Others include race tracks, athletic fields, commercial amusement parks, agricultural fairgrounds, drive-in theaters, urban parks or commons and zoos.
19. Water Based Recreation (RM). This includes marinas, boatyards, freshwater and saltwater sand beaches and swimming pool complexes with their bathhouses, and parking related facilities.
20. Mining (M). Mining is mainly for sand, gravel or stone. When exhausted and revegetated, sand and gravel banks fall into area of the other land-use categories.
21. Waste Disposal (UW). Included are active sanitary landfills, automobile junk yards and sewage treatment plants.

METHODOLOGY

The maps and their associated land use statistics were produced for MAPC by analysts from the Resource Mapping Group of the University of Massachusetts, Amherst.

UMass used 1:25,000 color transparencies taken in late 1984 for the area south of Boston and photographs taken in early 1985 for the rest of the region. They used a Bausch and Lomb Zoom Transfer Scope to superimpose the 1984-85 color transparencies on 1971/72 1:20,000 black and white aerial photographs. They were then able to delineate developmental land use changes greater than one acre into the 22 categories with a 95+% confidence level. Analysis of the photographs took place in early 1987 and the results digitized into a computerized geographic information system (GIS) IBM PC format called ARC/INFO. The Massachusetts GIS Project, funded by the United States Geological Survey and located in Boston at the Hazardous Waste Site Safety Council (HWSSC) then processed the data on a USGS mainframe computer to create town land use category totals and a magnetic tape of the town data. The magnetic tape was then transformed into mylar map plots by Camp Dresser and McKee. MAPC checked the results against its 1980 maps, CDM made appropriate corrections and HWSSC entered the corrected data into its files of record.

APPENDIX B
LAND USE ASSESSMENT FOR AFFORDABLE HOUSING

Marblehead's Total Land Area

2771 Acres

Area to be excluded pursuant to 760 CMR, s. 31.04

Conservation land	126.80 ac
Recreation & Park land	91.95
Railroad Right of Way	19.39
Waterbodies (ponds)	9.10
School land	75.19
Health Department land	16.00
Water and Sewer Department land	3.26
Cemetery land	41.06
Other Municipally owned land	2.85
Non-Profit Recreation land	29.00
Non-profit Conservation land	34.40
Roadways	290.00
Off Street Parking areas	132.00

TOTAL	871.00

Total Land Area 2771.00 acres

Minus Total excluded land 871.00 acres

Total Land Area of 1900.00 acres
residential, commercial,
industrial use as defined
in CMR 760 s. 31.04;

$1900 \times .015 = 28.50$ acres

28.50 acres is the minimum amount of land area needed for the Town of Marblehead to be exempt from Ch. 774 s. 20.

10.22 acres is only approximately one half percent of 1900.00 acres.

APPENDIX C

THE MARBLEHEAD WATERS AND SHORELINES STUDY

Marblehead Waters and Shorelines Study

Marblehead, Massachusetts

Himmel Conway Clifford Leisinger John Wieneke

Community Assistance Program

Harvard Graduate School Of Design

Spring 1977



A BRIEF HISTORY OF MARBLEHEAD

It is said that the first settler, a fisherman, came across the bay from the colony at Salem and lived in a large hogshedd on the Marblehead shore, on what is now Pease's Point. Other early settlers came from the Channel Islands of Jersey and Guernsey in 1629. The settlement was part of Salem until 1640, when the Town of Marblehead was incorporated. The original deed of purchase from the Indians may be seen today in Abbot Hall.

A village of fishermen, originally called Marble Harbor because the rocky cliffs looked like marble to the passing fishing boats; usage soon changed the name to Marblehead, suitable because the town is on a rocky headland jutting into the Atlantic Ocean. From a poor fishing village the town grew and prospered through the clipper ship days when Marblehead vessels sailed the seven seas, brought wealth to the "merchant princes", some of whose opulent mansions still stand as fine examples of Colonial Architecture.

The prosperity and gay life brought by the wealth of trade was ended by the Revolution. The town was a center of blazing patriotism that drove out the few who remained loyal to the Crown. Fortunes and lives were freely given in the cause of independence. Marblehead sent an entire regiment, under General John Glover, which climaxed its heroic deeds by transporting Washington and his army in the famous crossing of the Delaware. In 1775 General Washington commissioned the "Hannah", manned and owned by Marblehead men, as the first American warship, thus supporting the town's claim, "Birthplace of the American Navy". Elbridge Gerry, one of the signers of the Declaration of Independence and later vice-president of the new United States, was born in Marblehead, in a house which still stands.

Impoverished by the Revolution, which left over 400 widows and hundreds of fatherless children in the town, the community went back to fishing, until a great gale in 1846 destroyed the fishing fleet, took the lives of 65 men and boys. The Industrial Revolution brought shoe factories to Marblehead, and these became the major source of income, until two great fires in 1877 and 1888 destroyed the wooden buildings, and the discouraged manufacturers went elsewhere rather than wait to rebuild.

After the Civil War, growing interest in yachting and the town's beautiful harbor contributed to its becoming a summer resort, popular because of its prevailing cool breezes, scenic beauty, as well as its quaint historic charm. As transportation facilities improved, summer residents remained all year, until now Marblehead has become primarily a year-round residential suburban town, but with carefully preserved background and atmosphere of rich historic interest, and the reputation for its picturesque harbor as the Yachting Capital of America.

9/10 - 2/77 - 5.00

From: "Marblehead, Massachusetts", Bicentennial Edition;
Marblehead Chamber of Commerce

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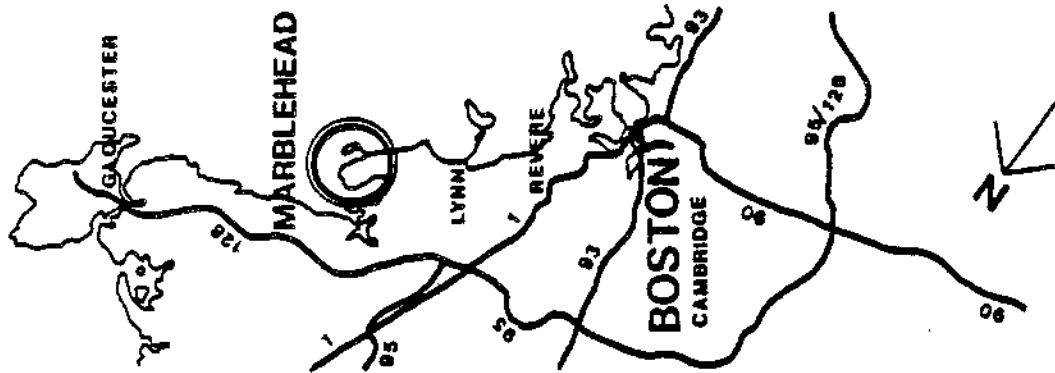
Introduction

Situated 17 miles from Boston, and north of the towns of Lynn and Swampscott and northeast of Salem, the town of Marblehead is part of a rapidly growing suburban-metropolitan area. Its municipal boundaries cover 4.4 square miles of hilly, rocky terrain with varying elevations to 110 feet above sea level, and it contains 14.2 miles of tidal shoreline. The population has increased gradually over the years to a 1971 estimate of 22,026.

An established yachting and fishing community, Marblehead has seen over the years a marked increase in water activity, to the point where it has reached limitations in use. The demand for mooring space in Marblehead Harbor far exceeds the present supply. Conflicts between commercial and leisure craft usage exist, and, at the same time, marine services are limited. In addition, general navigation of harbor waters is poorly defined, if not hazardous. These problems, as cited by the Citizens' Advisory Committee on Harbor Use, in its preliminary report to the Planning Board, laid the groundwork for the direction of this report.

It is apparent, however, that the problems pertaining specifically to harbor waters actually encompass all waters within Marblehead's jurisdiction, as well as its shorelines. Thus the problems become a community issue, as they affect the environmental quality and character of the entire town. The continuing concerns with Marblehead waters and shorelines are perpetuated by the present structure of local government and a lack of community awareness. Consequently, the issues require social,

political, and economic problem-solving at the local level. This report addresses the issues pertaining to Marblehead waters and shorelines from the perspectives previously mentioned, and the means by which these issues might be properly and effectively resolved. Its aim is to serve as (1) an educational tool for conveying the significance and problems of Marblehead waters and shorelines, and (2) a professional tool for implementing a waters and shorelines program.



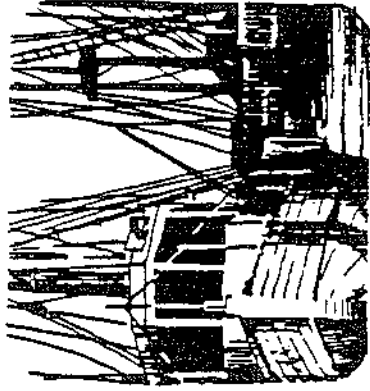
A Marblehead Image

Through events of its history, the town of Marblehead has evolved into a community rich in a heritage that means many things to its citizenry. Well known in its early days as a thriving fishing village, it has maintained throughout three centuries, that industry as well as a natural quality to its waters and part of its waterfront lands. Several buildings of fine architectural character have been preserved, resulting in two zoned Historic Districts. In addition, the 19th-century notion of yachting and leisure-craft recreation has enabled Marblehead to declare itself today as the "Yachting Capital of America."

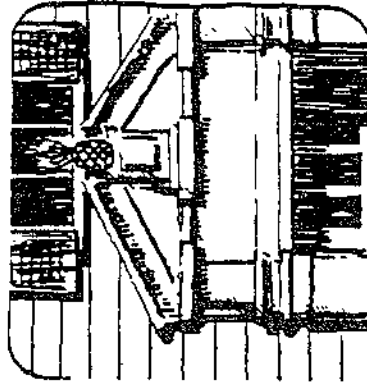
Residents, in the early days, were largely comprised of established families which, for generations, have remained there. More recently, however, the community makeup has shifted to include many who commute to work in Boston and other areas. Combined with this permanent yet changing residency, the population also adjusts in the summer months to accommodate a considerable increase in the use of public waterfront lands. In addition to serving as a summer resort, Marblehead, with its quaint historic charm and many specialty shops, is a year-round visitor attraction. Undeniably, it is a highly desirable place in which to live, reflected not only in the supply and demand for the area but also by its visual appeal. The historically significant, coupled with the natural amenity of the enveloping "waterscape," composes a uniquely attractive community.

The harbor waters and shorelines are elements inseparable to the Marblehead

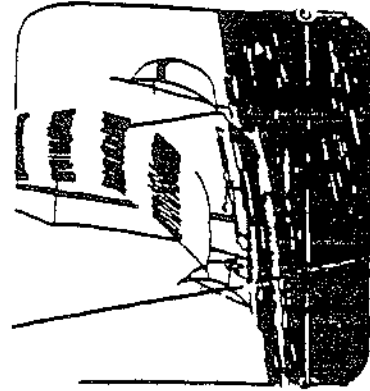
image. We strongly advocate continued enhancement of the qualities inherent in such an image: the aesthetic and historic, the tradition of fishing, yachting, and the invaluable assets the waters and shorelines provide to the community.



Fishing



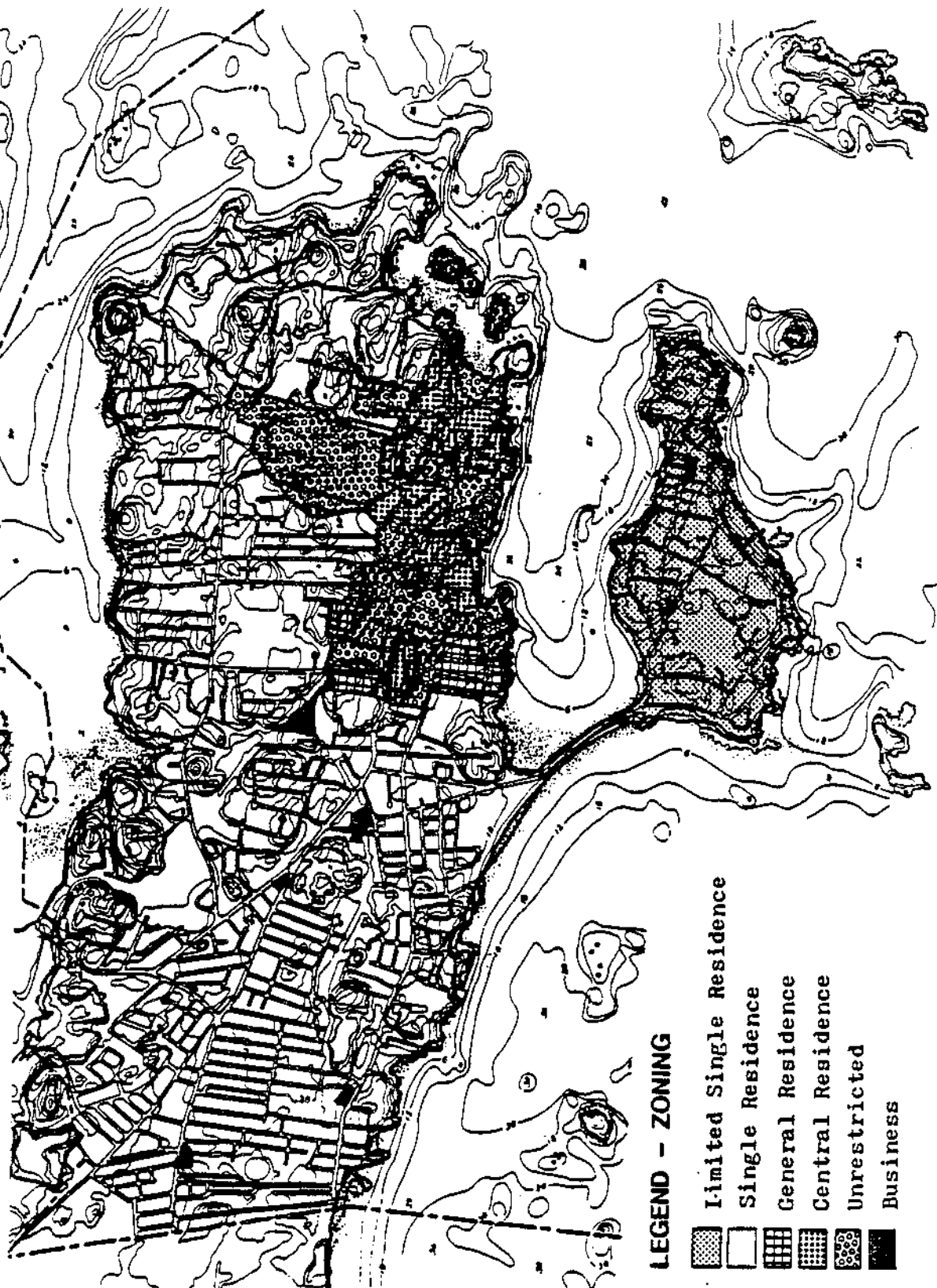
Architecture









Yachting

Marblehead Waters and Shorelines Study

Marblehead, Massachusetts



LEGEND - ZONING

-  Limited Single Residence
-  Single Residence
-  General Residence
-  Central Residence
-  Unrestricted
-  Business

Issues

The Citizens' Advisory Committee on Harbor Use identified several harbor-related problems, occurring now as well as fore-shadowing others stemming from future growth and demand upon the town:

- (1) Marblehead Harbor has been classified by the U.S. Army Corps of Engineers as "over-used", while more than 500 applicants await mooring permits;
- (2) Fishermen and lobstermen are lacking facilities necessary to perform staging and maintenance work; and
- (3) Marine services do not fully accommodate boating demands.

Recognition and investigation of these problems raises several major questions, which are discussed here as six closely related issues:

Issue 1: Can the present management system provide the planning necessary to solve existing and future problems of Marblehead waters?

Increased use of the waters has resulted in congestion at docks and landings. It has consequently affected land use by augmenting traffic congestion and demands for vehicular parking near the shoreline. Moving and parking violations are as prevalent as mooring and navigation violations. It is evident, then, that water use directly affects land use.

In order to address the impacts of increased water activity, one must look at related land activities and their effects

as well. At present, this complex interaction between the two is handled by several factions of local government. Responsibilities are scattered among departments, including the harbor master and the selectmen, creating confusion and preventing overall coordination of waters and shorelines. To meet demands and pressures regarding land- and water-use development, Marblehead requires a balanced system of efficient harbor use, effective water and shoreline management, and a regulatory system with powers of authority and centralized duties and responsibilities represented as a single branch of the local government.

Issue 2: Can present land-use development controls deal with today's pressures?

As a means of land-use control, Marblehead uses the traditional tool of zoning. It incorporates six types of districts plus variances and approval by special permit for exceptional uses in each. Although the zoning by-laws are, on the whole, well defined, certain districts allow almost unlimited development opportunities. Districts zoned as "unrestricted" could pose a major threat to the community if outside development interests were to acquire such lands; other districts also allow for a wide range of land-use options without special permit, which could result in incompatible land uses within the district itself. These concerns apply particularly to the future development of the shorelines. With such loose definitions in the present by-laws, land-use development cannot be carefully controlled or directed from a municipal standpoint. An effort should be made to remove the "open-endedness" and

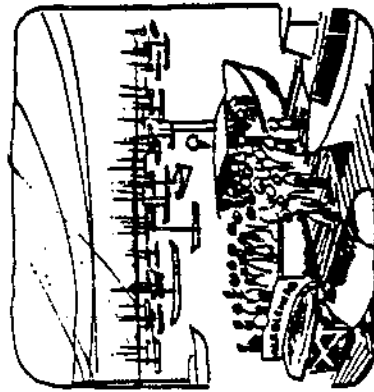
"tighten up" on such districts, through regulation.

Overall, Marblehead has evolved into a community having a comfortable land-use pattern largely void of incompatible development. A major step in the municipality's ability to manage itself is reflected in its zoning in 1965 of two Historic Districts--as a legal device for preserving and protecting the many buildings, sites, and landmarks. Just as its architectural character is essential to Marblehead's image, so are its waters; yet little has been done to legally protect them.

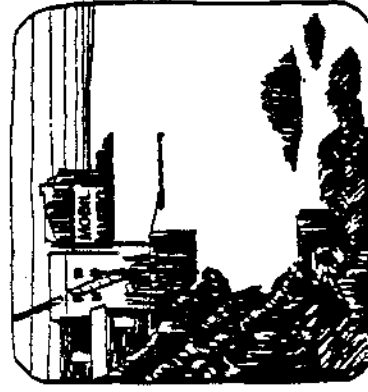
Issue 3: Is Marblehead Harbor over-used or under-developed?

During its peak season, Marblehead Harbor is quite picturesque. The density of boats moored, the mix of different sizes, and the variety of colorful sails and shapes of craft are a highly appealing visual experience. From a practical standpoint, however, that image reflects the serious lack of efficient use and safety of the harbor waters. Increased congestion has resulted from the lack of a well marked fairway within the harbor for access and egress, which are presently an exercise in haphazard maneuvering among moored boats. During inclement weather, the mooring arrangement creates the risk of larger boats damaging smaller craft which are moored next to one another.

Concurrent with the great demand for mooring space, marine services are threatened by development, resulting in a higher economic return on shoreline properties. Marine services are underdeveloped and must be re-established to accommodate the increase in boating needs as harbor growth continues. Long-range accommodations could be met by



Congested Facilities



Marine Services

development of the head of the harbor, construction of a breakwater, or intensified use of the waters along the west shore. Whatever the municipal action taken, coordinated, overall planning for the waters and shorelines should be established through a phased-growth management program; lessening over-use and planning the future of underdeveloped areas would be goals of this program.

Issue 4: Will marine services continue to be threatened by development yielding higher economic returns?

Marine service facilities in a community such as Marblehead would seem to be a prevalent type of land-use development along the shoreline. Other than at the private yacht clubs, however, only one company presently exists for providing fuel, water, ice, and other boaters' needs. This service is an integral part of the marine-oriented commerce and industries of Marblehead; yet, due to economic opportunities for re-use of the property within existing zoned districts, it is not highly marketable. Because marine services fulfill a basic need of the boater and aid in curtailing problems created by "over-use", methods to secure the present facilities and establish additional ones should be considered and investigated.

Issue 5: What roles should resident and non-resident recreation have in the town? Like many other New England communities, Marblehead maintains a rather insular, independent attitude toward its use and development--a posture favoring the interests and rights of its residents. Tourism, in effect, then, is not encouraged, and events are publicized more at the local level than on an area-wide/regional basis. Nonetheless, yachting and recreational events are

well attended and impact the town with traffic congestion, security problems, littering, lodging shortages, and parking limitations.

Seasonal tourism, along with year-round visitors, has initiated an obvious change in the local retail market. Recently, retail businesses in the commercial shopping area of the Historic Districts have shifted from neighborhood convenience stores and provisional marine services to specialty shops (arts and crafts, boutiques, antiques). For example, Chadwick Hardware is now Marblehead Handprint. Meeting such market interests not only reinforces a specific character of the community but also reflects the stimulus tourism creates for local business.

The town must determine the positive and negative impacts of non-resident use. A clear designation of public areas and an acknowledgement of private ownership of land are critical distinctions to be made.

Issue 6: Can the aesthetics of Marblehead's natural harbor and shoreline environment withstand time and growth pressures?

Establishment of historic districts and a waters and shorelines program is a positive step on the part of local government in maintaining an aesthetic quality to the community. The commercial fishing industry--the original economic livelihood of Marblehead--and the natural state of waters and shorelines, has sustained itself over the years. There is no protection, however, against these elements of Marblehead's heritage being overpowered by future growth pressures. The aesthetic quality must be identified, preserved, and enhanced on a community-wide basis.

Policies

Each year, the citizens of Marblehead and members of its government participate jointly in making many everyday decisions as well as resolving major issues on the Town Warrant. It is at this local level that the results of such decisions affect the community, either positively or negatively. Therefore, to assist in and direct the town's planning process, a list of policy statements has been drafted; we recommend that at least the essential points of each be adopted:

- (1) Ensure that all town-level decisions consider Marblehead waters and shorelines through recommendations from an established regulatory body capable of problem-solving and solution implementation;
- (2) Secure and promote water-dependent development--especially marine services;
- (3) Ensure and promote fishing/lobstering as an industry and attraction;
- (4) Encourage water and shoreline uses that preserve the natural amenities, protect marine ecosystems, and enhance the cultural heritage of Marblehead;
- (5) Clearly define and secure existing areas for public use of waters and shorelines;
- (6) Enforce state Coastal Zone Management policies for the waters and shorelines; and

- (7) Develop design standards for review of all developments and improvements of the waters and shorelines in compliance with the aesthetic quality of a "natural shoreline".

These policies are intended as a guide for dealing with existing problems and future growth and demands. They are not intended to provide solutions to the issues cited earlier but to establish a framework for arriving at such solutions.

Recommendation

A Management Base

The local government structure does encourage community participation, as evidenced by the number of appointed committees. The annual town meeting--a tradition of New England--is also a unique and significant opportunity for citizen participation. Interaction between citizens and public officials as well as cooperation among different branches of local government are effective elements in Marblehead's municipal system.

~~jurisdiction and responsibility~~
~~shoreline and shorelines; however, clearly~~
~~emphasize a problem of dispersed and divided~~
~~control.~~ For example, the Board of Selectmen allocates the budget for floats and landings, Grace Oliver Beach, Fort Sewall, and Gas House Beach, although the Town Engineer maintains and operates them through the jurisdiction of the selectmen. The Recreation and Parks Department maintains and improves parks, playgrounds, beaches, and recreation areas, including the Village Street Parking Area. And the Police Department is in charge of the harbor patrol boat.

Two citizens' committees presently serve in advisory capacities on the use and activity of harbor waters and shorelines, but there is no controlling municipal agency. It is truly ironic that a town which has instituted municipal controls to protect its architectural heritage has not done the same for its waters and shorelines--basic elements of the Marblehead image. To solve immediate as well as future problems, a management base is needed, function-

ing through local government in a regulatory capacity. Such a body would provide a choice regarding matters of crucial concern to the community. The following is our recommendation for establishment of a management system to oversee improvements, development, and use of the marine environment that has created and sustained the town of Marblehead for more than three centuries:

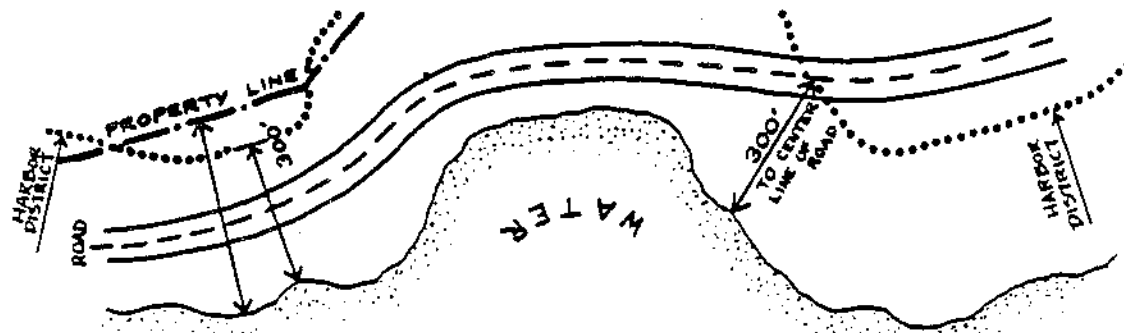
The Marblehead Waters and Shorelines Commission shall:

- (1) Analyze harbor and shoreline conditions.
- (2) Identify and evaluate harbor problems,
- (3) Serve in a problem-solving capacity,
- (4) Manage and coordinate public and private interests for improvement development within a defined area of jurisdiction, and
- (5) Have permitting authority within that area of jurisdiction.

The Commission shall consist of seven members, all chosen by the selectmen: they shall appoint two members for terms of three years each, two members for terms of two years each, and two members for terms of one year each. As these terms expire, the selectmen shall appoint two members to serve for terms of three years each. The seventh member shall always be the current harbormaster. One of the original six members shall be appointed as chairman for

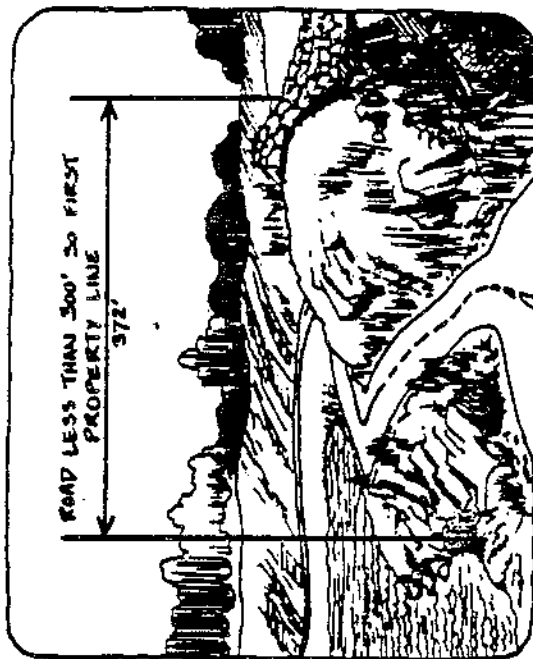
a term of one year; thereafter, the chairman shall be selected by members of the Commission for a one- to three-year term. The Commission should be evaluated annually to determine if adjustments should be made in its structure and form.

The Commission shall occupy an organizational position within the town government parallel to that of the Recreation and Parks Commission.



A Marblehead Waters and Shorelines District shall be identified, where possible, by the center line of the first paved road, located at least 300 feet from the water's edge. Where not applicable, property and/or boundary lines of said district shall serve as connections to parallel paved roads already identified as part of said district boundaries.

A Marblehead Waters and Shorelines Design Review Board shall serve in an advisory capacity to the Waters and Shorelines Commission on aesthetic and ecological matters directly related to improvements and development within the District. The Review Board and the Commission shall develop policies and guidelines on which to base Review Board decisions. The Board shall consist of at least three members nominated by the Commission and chosen by the selectmen for terms of three years each.



Defining the District

The Waters and Shorelines Commission shall have regulatory authority within the District as well as advisory duties on other harbor-related town matters. All appeals shall be reviewed by the Zoning Board of Appeals.

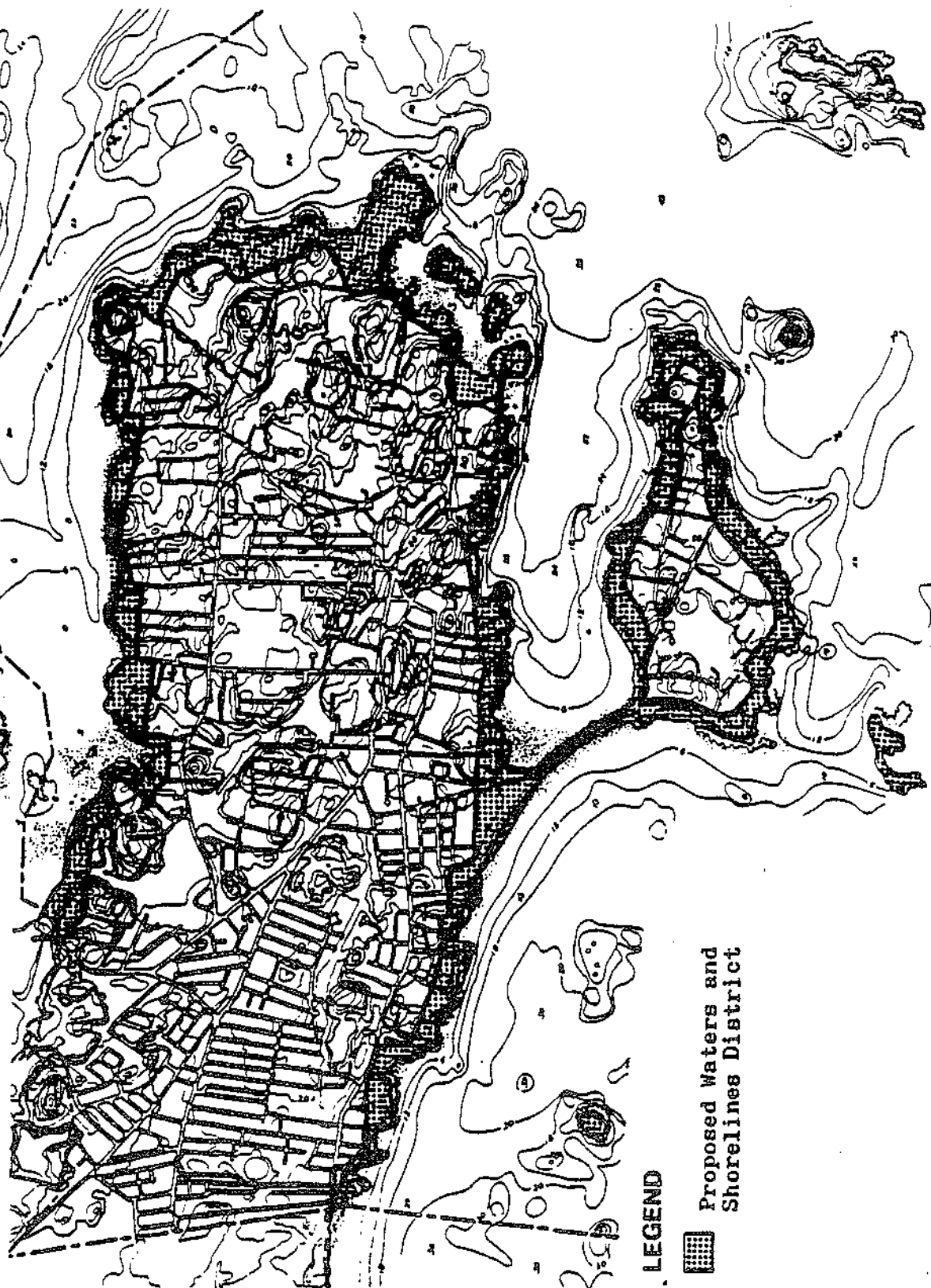
Options: There are numerous variations of structure and authority that can be assigned to a commission; the importance, however, lies in its role as guardian of a specific resource, the mechanisms under which it operates, and support of the community. An additional mechanism for the management system is a Citizens' Advisory Committee to assist on special projects and provide citizen participation and expertise.

An alternative to the designation of a jurisdictional boundary of the Commission's district would be to expand it to include the entire town and its waters. This is a simple, impartial means of designating a district but does not, for all practical purposes, expand the Commission's regulatory role. Because of the specific issues dealt with, it merely reinforces the advisory capacities the Commission would have on harbor-related town matters.


In an effort to encourage interaction

Morblehead Waters and Shorelines Study

Morblehead, Massachusetts



LEGEND

-  Proposed Waters and Shorelines District

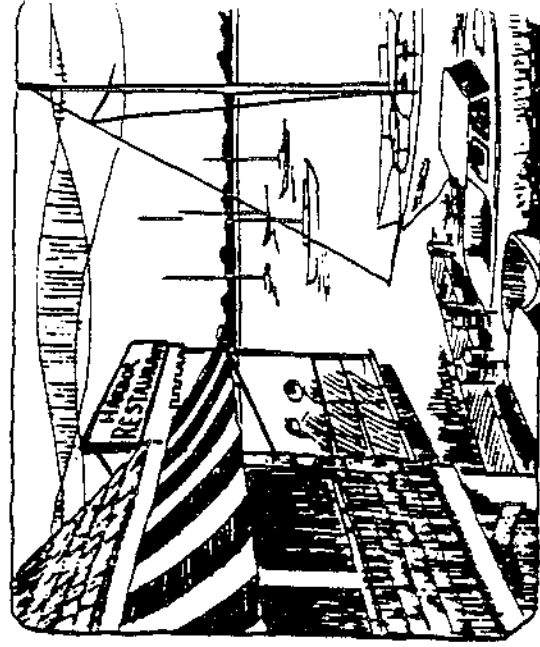
among the various branches of local government, its members or employees who may have some significant relationship to or interest in the waters and shorelines may be appointed to positions on the Commission or its committees. The following branches could provide qualified members: Zoning Board of Appeals, Planning Board, Recreation and Parks Commission, Conservation Commission, Harbor Advisory Committee, and the Citizens' Districts Commission. Consideration should also be given to the appointment of professionals whose fields are directly related to environmental planning and design or coastal zone management, protection, or development.

Waterfront Development

With the establishment of a waters and shorelines district, one can attempt to address specific issues of community concern and apply them to this management system. As mentioned earlier, Marblehead is a complex and changing community of suburban commuters, "traditional" residents of many generations, and seasonal visitors and tourists. Its location, attractive image, and unique annual events subject it to increased developmental pressures. The shorelines are approximately 80% occupied by single-family residential development; the remainder includes restaurants, private clubs, multi-family housing, and marine-industrial services. Confined by this privately-vested interest on the shoreline, the town has provided for a number of public parks, beaches, public ways, and playgrounds which abut harbor waters. This land is highly valued for its panoramic view of Marblehead waters and is thus highly guarded. The use of coastal waters, whether municipally, state, or federally owned, is a right of the public and a privilege of a limited number of private interests. Both

sectors have obvious development potential which must be well-balanced and directed accordingly.

Development within the District and which potentially affects the use, activities and aesthetic quality of waters and shorelines should be regulated through the Commission, collaborating, where necessary with other branches of local government. Such development can be considered in two ways: water-dependent and water-enhanced. Water-dependent includes development whose existence alone depends on the harbor, i.e. marine services, yacht clubs, etc. Water-enhanced describes that which is enhanced by abutting or being situated on harbor waters, i.e., restaurants, hotels, residences, etc. In the latter case, harbor



Water-enhanced Development

waters are an amenity and add value to the land. This is evident in previous land assessments: the formula was adjusted for waterfront lands, resulting in a higher property tax, while inland property

received a proportionately lower value assessment. This added value is accounted for in the town's tax revenues generated from property assessment and promotes increased development pressure without regard for the effect on the waters and shorelines' use, access, and visual and aesthetic qualities.

Marblehead presently has a rather comprehensive set of zoning by-laws. There are six types of zoning districts--Single Residence, General Residence, Central Residence, Unrestricted, Limited Single Residence, and Business--and all about harbor waters. The Zoning Board of Appeals within each district also affords the opportunity for special permits and variances which expand the options for potential uses of land. Because ~~variances are not~~ their "open-endedness" in options of use, allow for the threat of unregulated development, ~~we recommend that they be~~ ~~the by-laws and affected areas be~~ zoned to the district they presently best belong to or the district which predominates in the immediate abutting areas. Special permits and variances should be considered for these districts.

Zoning as a regulatory mechanism of land-use is most effective when used in conjunction with discretionary tax incentives and abatements; within a designated district, this means of directing growth is particularly useful. It is our recommendation that the natural state of the shoreline and water's edge be maintained to the fullest extent possible. Concurrently, needed waterfront land-use (water-dependent) development should be carefully encouraged and planned for, based upon a balanced arrangement of municipally owned land and private development serving the public. ~~Official waterfront development or any~~

~~enhanced~~ development is not favored in this study--without provisions for open-space access to the waterfront, shoreline setbacks where building should occur, and preservation of a natural shoreline edge up to high high tide.

Listed here are types of land-use applied to tax incentives and zoning by-laws as a means of directing development in the Harbor District:

Harbor District	Discretionary Tax Abatement	Zoning	Special*	
			Yes	No
Residential Uses				
Institutional Uses			X	X
Government & Public Services			X	X
Public Services			X	X
+Retail and Consumer			X	X
Open Space	X			NA
+Boat Services	X			NA
Industrial Uses				
+Marine Services	X		X	NA

*Special permit requires public access to water, open-space setback between high tide and inland harbor district boundary, and preservation of visual corridors from the street abutting property used for access.

+Must comply with Design Review Board standards and be in accordance with present zoning district allowances.



Public Ways were established on Marblehead Neck as early as 1918. Considerable legal controversy over the years regarding ownership-privileges and public easement rights has resulted in the return of some of these lands to the private owners. The considerable number of Public Ways which do remain today, however, are poorly demarcated and instead seem almost camouflaged by abutting private lands. Many Public Ways extend down to the water's edge; in particular, Cove Lane extends downward to Marblehead Harbor and actually connects with Chandler Haven Park. We recommend that Public Ways be redeveloped and clearly demarcated for use as such.

passed which decrees upon each state the opportunity for development of a coastal zone management system, later to be promulgated into an overall national policy. In Massachusetts, the U.S. Army Corps of Engineers is responsible for evaluating harbor efficiency and safety, and, unless Marblehead undertakes measures to alleviate congestion in its waters, the Corps of Engineers shall emerge as overseer of municipal waters. Problems include harbor circulation, mooring, policing, and mixed uses in the harbor. To secure safety and efficiency of use, we recommend that fair ~~anchorage, mooring, and~~ ^{anchorage, mooring, and} Marblehead and Salem Harbors be designated. Mooring displacement should be determined as follows:

Reaching a balance between public land-use and private development is crucial to the future of Marblehead harbors and shorelines. Certainly, we advocate conservation, wherever possible, of a "natural state" through open space and recreational/park use. This could be achieved through discretionary tax abatements to private land-owners and/or zoning to regulate land-use opportunities. Alternatives are the outright purchase of development rights or total acquisition of land by eminent domain.

(1) Smallest moorings should be considered first, reducing the cost of transporting or purchasing new moorings; nonresident, non-taxpaying users of moorings should be considered first in displacement, giving preference to resident taxpayers wherever possible. Residents not moored near personal interests (home, club, property) directly related to personal water use have more flexibility in water relocation.

Establishment of a Waters and Shorelines Commission, adjustments to zoning by-laws, and expansion of discretionary tax abatements could be effective management techniques for Marblehead waters and shorelines and could be readily applied to both water-enhanced and water-dependent development. Both could be undertaken by the private or public sector.

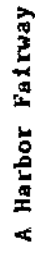
(2) Effort should be made to preserve the visual quality of the harbor when designating a fairway.

For the relocation of moored boats, fairway displacement could be handled in one of the following ways:

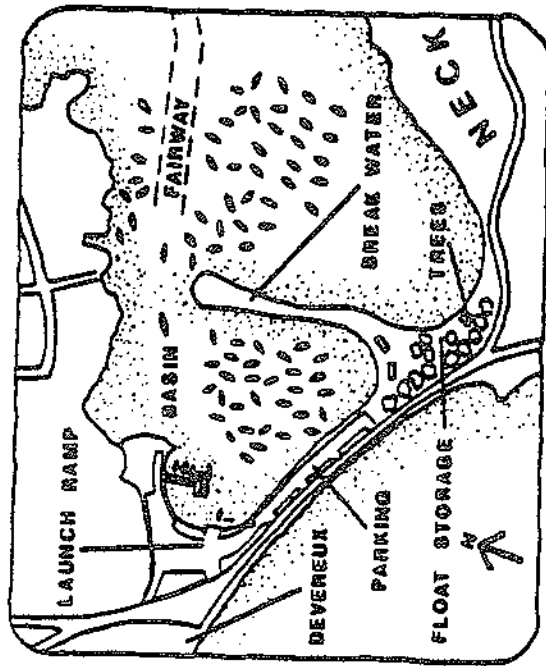
(1) Boats could be given relocated moorings in areas immediately adjacent to the fairway channel where space is available either through forfeiture or rearrangement of that sector of the harbor;

Water Use

Since the early 1970s, coastal zone management has been a source of concern for the nation's shorelines. Recently, an act was



- (2) The head of the harbor could be dredged to accommodate only the needed number of displaced moorings created by the new fairway, with the dredging to be used as fill on Riverhead Beach; or



Future Development Potential

- (3) Displaced boats could be moved to the west shore area for mooring.

Arterial channels leading off of the main fairway to heavily used public or private landings should be considered as well. Although this requires a more extensive change to the harbor arrangement, it does provide additional safety, efficiency, and policing capabilities.

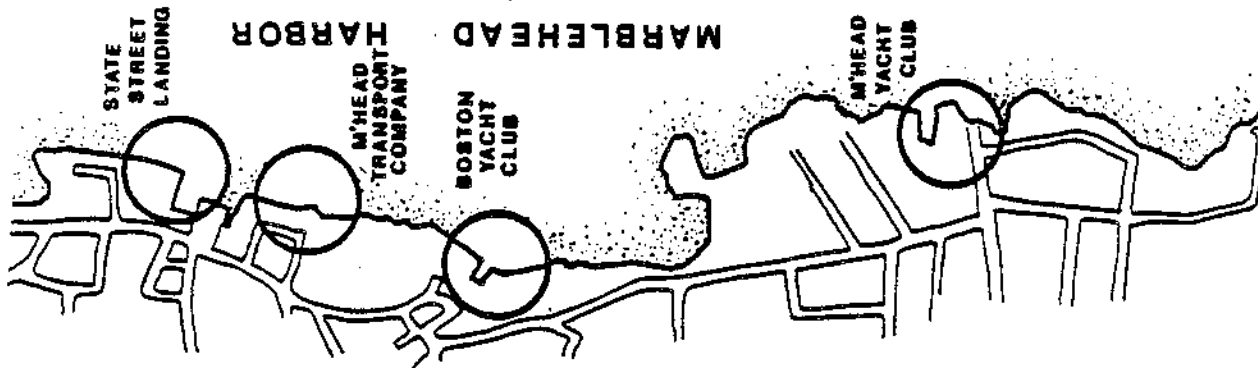
In the same vein, planning should begin now for designation of a fairway in Salem Harbor, either as a shared channel between the towns of Salem and Marblehead or as a fairway designated within Marblehead waters exclusively for that town's use. Access

points to existing and foreseeable future public and private landings should be considered.

Boat circulation problems on waters can be as serious as vehicular congestion and accidents on land. We suggest as a beginning point in this planning effort, that along with the yearly mooring application fee to harbor users, a brief questionnaire be distributed, since direct feedback would be one step toward problem clarification. Meeting with private yacht clubs, commercial fishing enterprises, and resident waterfront groups would also reinforce lines of communication. Such responsibilities would lie with the harbormaster and the Citizens' Advisory Committee.

Mooring space becomes problematic in the areas of density and arrangement. The harbormaster has now declared a moratorium on permitting moorings in Marblehead Harbor. West shore moorings, however, are increasing by approximately 200 per year. Much of the west shore on Salem Harbor is quite shallow and restricts the amount of permitting available during the coming years. The location and monitoring of mooring space is systematically allocated through a grid arrangement mapped over Marblehead waters. This is quite useful for keeping track of where boats are located, but does not necessarily reflect the best use of the harbor.

We strongly recommend a 6-month, off-season moratorium on all permitting in Marblehead waters. Such action would allow local government to develop a planning strategy for solving short-term and immediate problems as well as accommodations for future growth. Long-term planning measures of extensive dredging along Riverhead Beach or construction of a breakwater at Chandler



Hovey Park as proposed over 15 years ago are opportunities for expanding mooring space and increasing safety. During the 6-month period, the following planning considerations should be developed into a program for implementation by the Waters and Shorelines Commission:

- (1) Onshore facilities to accommodate projected boaters' needs, such as parking, access to launches, first aid, and provisional marine services;
- (2) Rearrangement of existing mooring space to increase use of the total water area presently occupied; and
- (3) Careful planning of future available space on the west shore of Salem Harbor, avoiding problems which exist in Marblehead Harbor.

It is also important to note the significance of mooring permits and tie-up fees as a revenue source to the municipal tax base. Presently, permits cost only 50 cents per linear foot of the craft moored, with no distinction made in fees between residents (taxpayers) and non-residents. We suggest that revenues generated from moorings be regulated and increased according to the town's discretion, with residents being charged less than non-residents.

Marblehead waters are navigated by two distinct interests: recreational boaters and lobstermen/fishermen. Conflicts do arise when areas of overlapping use occur, and different types of land/water services are required. Both interests must be acknowledged and provided for.

Although commercial fishing has declined over the years, giving way to recreational boating, a modest fishing/lobstering industry

does exist, which should be protected as its facilities improved. Shared use is feasible as long as areas are clearly defined, and enforced. Related on-land services should be sited with ready access to fairway circulation.

Present local harbor patrolling enforces boating rules and safety regulations in adequately. Penalties and fines for illegal mooring and other water-use violations be carried out to the fullest extent of the law. Marblehead waters are heavily used and violations (such as speeding) jeopardize the safety of others. Effective police power must protect the overall condition of the waters and the well-being of its users. It is recommended that the responsibility be included within the regulatory capacities of the Waters and Shorelines Commission and relieved as a duty of the Police Department.

Marine Shoreline Services

Marine services are being threatened by several factors. As the value of local real estate increases--especially waterfront property, the temptation to sell also rises. Escalating costs of waterfront property is a major concern in Marblehead. In addition, the marine service facilities are located at the water's edge, on land zoned unrestricted, possibly allowing other types of development to occur.

Private holdings of marine services could be secured through discretionary abatements of a portion or complete waiver of all property tax applied to this special use. If such an incentive failed, municipal development of marine services in town-owned lands should be considered. Securing a viable market demand, financing for municipal marine services could be

undertaken through the floating of a general obligation bond.

For securing and developing marine services and related onshore facilities, we recommend:

- (1) Considering municipal development of marine services;
- (2) Granting discretionary tax abatements to existing marine services;
- (3) Providing staging areas for fishermen and lobstermen;
- (4) Planning future landings and services with access to designated fairways;
- (5) Purchasing land to provide parking for marine-related uses; and
- (6) Investigating areas of existing municipally owned lands that would "visually contain" boat and float storage during off-season periods.

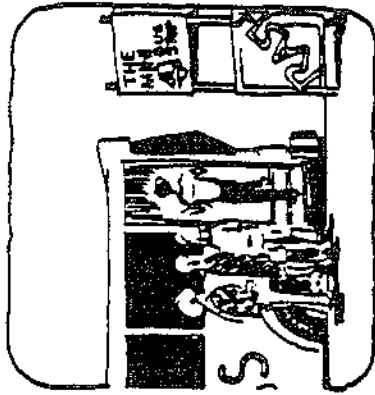
Tourism

In the early 1960s Marblehead was named one of the four most beautiful towns in the U.S., along with Carmel, California; Aspen, Colorado; and Tyron, North Carolina. Publication of this fact already known by many Marbleheaders did not signal the birth of the tourist industry there--it merely helped confirm it. Marblehead, for decades, has served as host to thousands of sight-seers and visitors.

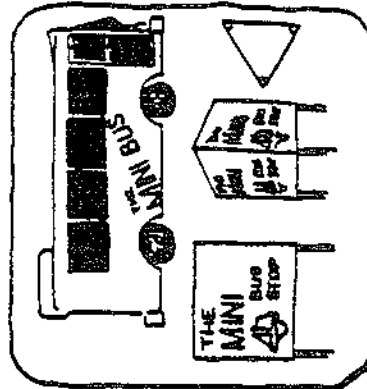
The impact of tourism is a significant determinant of the future of the town's image. Unless tourism is carefully managed, the image could suffer from being "overly commercial". It is recommended that a

professional market study of local tourism be made to determine the direction to be taken in accordance with the community's best interests.

It is unfortunate that along with the tourist dollar comes problems that create hardships for all: traffic jams, parking limitations, lodging shortages, inadequate access to visitor attractions, and a lack of information and facilities for nonresident use. Traffic congestion results from narrow winding streets, inadequate pedestrian walks, and severe limitations on parking, especially during the summer months. Clearly marked satellite parking areas and revitalization of the mini-transit system incorporated during the 1976 Bicentennial, as well as easy-to-read graphic information, efficient time schedules, and transit routes reaching all points of public interest would reduce the problems dramatically.



Transit System



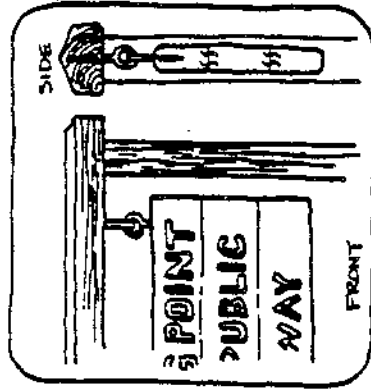
Signage

Public-school parking areas and the acquisition of additional lands, if necessary, would fulfill in-town seasonal visitor parking needs. Residents should receive stickers at a minimal seasonal charge, and visitors should be charged on a daily basis. For pedestrians, sidewalks need to be improved or extended along major thoroughfares, and public accesses to waters and shorelines clearly demarcated. Consolidation should also be given to seasonal, weekend street closing for exclusive pedestrian use.

Lodging facilities and visitor attractions are additional areas of concern. The recent development of apartments and condominiums along Marblehead's shorelines has indeed fulfilled a housing need, but it has also blocked access to and visibility of the town's waters considerably.

It is recommended that lodging be offered

at in-town "guest houses" or "tourist homes". This could be promoted through the granting of special permits to zoned areas upon resident request. In addition to providing residents with an added value to their property, it would allow the town's visual quality and scale of development to remain unchanged.



Visitor Information

Tourist attractions are poorly developed and demarcated. Visitor information regarding landmarks, historic sites, public ways, and beaches should be provided--through graphic information and tourist centers--upon entry to the town at major traffic arteries. Many attractions are only minimally maintained or poorly publicized. Capital improvements for areas such as Barnegat Beach--a potential fishing attraction, Fort Sewall, and Chandler Hovey Park, to name a few, are strongly recommended.

Water and Shoreline Aesthetics

Two elements responsible for the growth and prosperity of Marblehead are its waters and coastal edge. Shorelines of granite rock reflect this New England village as it was long ago. However, the overall aesthetics of the waters and shorelines do not end with the harbors, rocky cliffs of Crocker Park, or Gerry and Brown Islands in Little Harbor. Nor does including the historical architecture complete the image. Significant landmarks also play a major role in Marblehead's character. Among these are Abbot Hall, housing the internationally famous painting, "Spirit of '76", and the residence of native citizen and fifth Vice-President of the U.S., Elbridge Gerry.

Open space brings the whole visual experience together in Marblehead. Crocker Park, for example, serves as a perfect

vantage point overlooking the entire harbor as do Fort Sewall, and Chandler Hovey Park at the end of Marblehead Neck. We recommend that capital improvements be appropriated to enhance such points.

The Waters and Shorelines Design Review Board should oversee--and make recommendations to the Commission for approval of--all developments, improvements, and changes within the District. These would be based on guidelines that consider the following in accordance with Marblehead's image: color, texture, size, and proportion of buildings; obstruction of visual corridors to water; preservation of "natural" shoreline edge to high tide; and provision for open space, access to water, and building setbacks from the shoreline.

The Design Review Board would also be responsible for the inventory of all public and private nonconforming aesthetic conditions that presently exist, and make recommendations for appropriating funds to correct such conditions. It is also recommended that the Board secure an inventory of all existing visual corridors and vistas emanating from inland streets and overlooks for the preservation of the "visual aesthetic" in any future review of proposals for development or improvement.

Conclusions

Marblehead waters and shorelines, since the town's inception in 1649, have been a source of livelihood and pleasure for residents and visitors. A working natural resource functioning in numerous ways, they contribute to the town's heritage, image, and lifestyle. Highly valued for their scenic natural beauty, the waters and shorelines also strengthen the municipal tax base. Through use and development of this unique amenity, however, specific problems have emerged due to a lack of protection and regulation. This report has attempted to address these problems and point out that the issues are not limited to the waters alone, but affect the community at large.

The citizens of Marblehead must first realize the importance of its waters and shorelines as an integral part of the entire community. Marblehead does not have a land-use problem in the traditional sense, but a water-use problem stemming from the great demand that harbor growth brings. A lack of comprehensive planning, adequate management, and environmental protection is reflected in the issues presented here; such an oversight must continue no further. It is the responsibility of the local government and citizens to begin including its waters and shorelines in budget appropriations, by-laws and amendments, and district protection acts; possible consequences from failure to do so are boundless.

We believe in the capabilities and conscientiousness of Marblehead's government and citizenry. We also recognize the value a natural resource can provide to the public at large and the private resident sharing it, and the delicate balance to be

achieved. The problems as well as recommendations for solving them are before you. The future of Marblehead rests with the response of the community--a response reflecting the values of its citizenry and a regard for its natural resources.