



SOUTHEASTERN REGIONAL PLANNING AND ECONOMIC DEVELOPMENT DISTRICT

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THE BUZZARDS BAY PROJECT

LAND USE CHANGES IN THE BUZZARDS
BAY DRAINAGE AREA - 1951 to 1984

JUNE 1989

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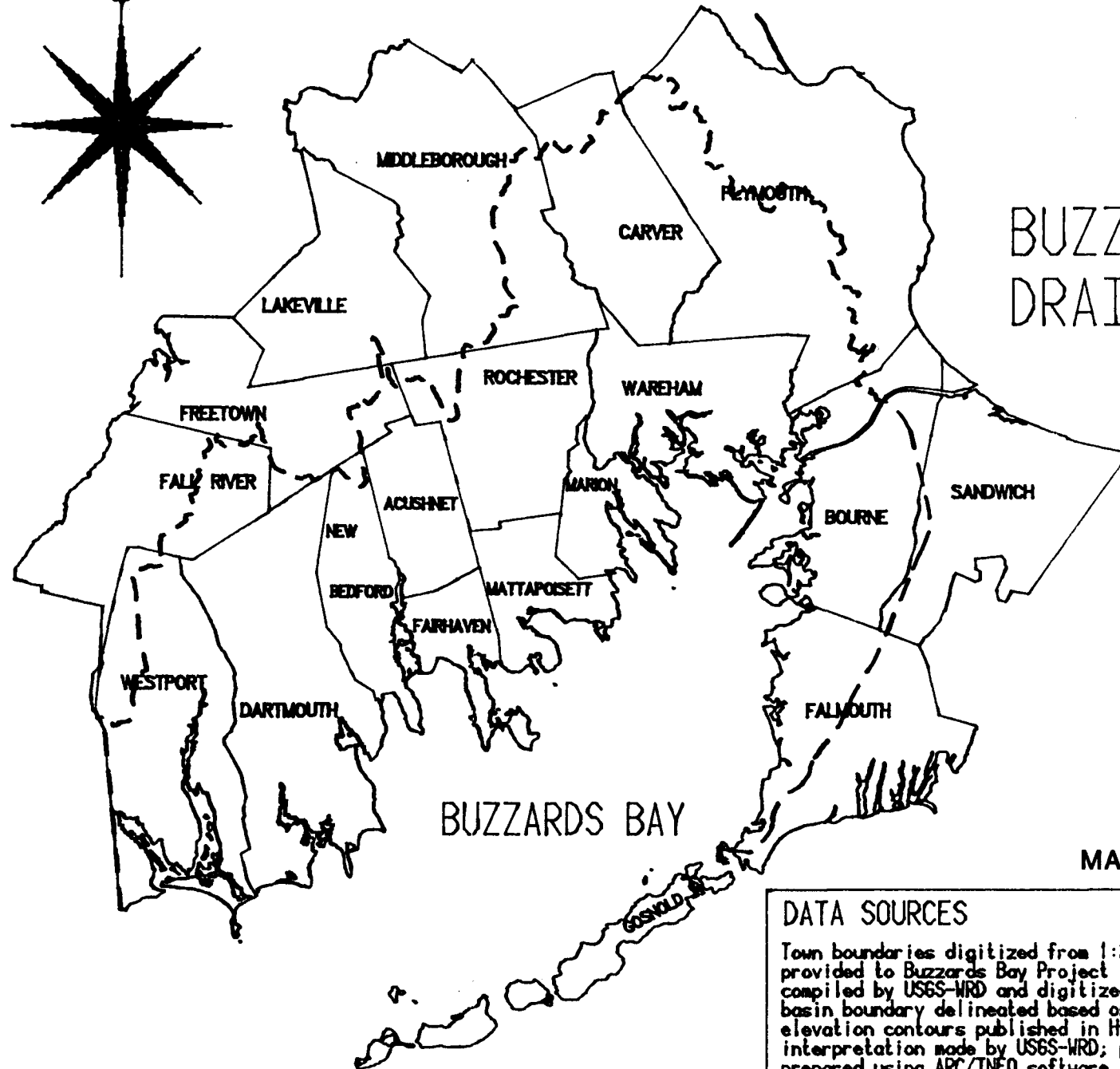
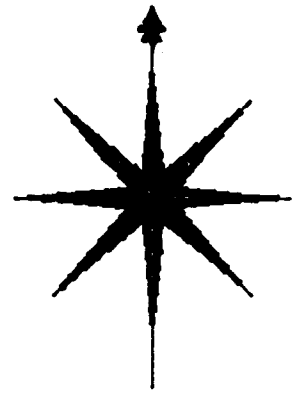
LAND USE CHANGES IN
BUZZARDS BAY DRAINAGE AREA - 1951 to 1984

Introduction

The purpose of this study was to acquire land use data for the Buzzards Bay drainage area and to identify major trends in land use for the period from 1951 to 1985. To accomplish this purpose, 1984 land use statistics were purchased from the University of Massachusetts, Department of Forestry and Wildlife Management. In addition to the standard 21 land use categories presently available, statistics were purchased for six additional land use categories that have importance for water quality. These include marinas, cranberry bogs, power lines, golf courses, tidal salt marshes and irregularly flooded salt marshes. The report also includes a brief analysis of land use trends. Changes in land use from 1951 to 1984 are described and related to other factors such as changes in population, housing construction and employment.

The drainage area for Buzzards Bay is shown on Map 1. This area includes all or part of 19 municipalities. However, because of funding limitations, land use data were purchased for only fifteen municipalities. In general, these were the municipalities with the highest percentage of land area within the Buzzards Bay drainage area.* Of the fifteen municipalities, six were completely within the drainage area (Acushnet, Dartmouth, Fairhaven, Marion, Mattapoisett, Wareham), and statistics for the entire town are presented. Three municipalities (New Bedford, Rochester, Westport) were also included in their entirety even though they had a small amount of land outside of the drainage area. This had the added benefit of allowing comparisons with 1951 land use data. (Because of funding limitations comparisons between 1951 and 1984 were only possible where data were available for an entire municipality). Two municipalities (Bourne, Falmouth) were included in their entirety even though they had large land areas outside of the drainage area. This was done because there was not a commonly agreed upon watershed boundary at the time

* Gosnold is an exception. Even though it was entirely within the drainage basin, it was excluded because there was little land use change between 1951 and 1984.



BUZZARDS BAY DRAINAGE BASIN

MAP 1

DATA SOURCES

Town boundaries digitized from 1:25000 scale USGS quads; provided to Buzzards Bay Project (BBP) by MassGIS. Basin boundary compiled by USGS-WRD and digitized by MassGIS. Cape Cod side basin boundary delineated based on interpreting water table elevation contours published in Hydrologic Atlas No. HA-692, interpretation made by USGS-WRD; processing by BBP staff. Map prepared using ARC/INFO software.

this study was prepared. Finally, four municipalities which had large areas outside of the drainage area were included on a partial basis. These municipalities are Carver, Fall River, Middleborough and Plymouth. As previously stated, comparisons with 1951 data are not possible for these municipalities.

Trends in Major Land Use Categories

The entire Buzzards Bay drainage area has experienced rapid development over the past 35 years. These changes are reflected in the statistics presented in this report on land use, population, housing and employment. The land use information* was compiled for the drainage area from the land use studies supervised by Professor William P. MacConnell of the University of Massachusetts, Department of Forestry and Wildlife Management for 1951, 1971 and 1984.** The data are presented below in summary form for the entire drainage basin and for separate municipalities in Appendix A.

An analysis of land use change in the Buzzards Bay drainage area which focuses on broad land use categories shows a trend of land use change in which open land categories (agriculture, forestland, water*** and wetlands****) lost land area and urban land categories (mining/waste disposal, transportation, residential) gained land area. These changes parallel the growth in population, housing units and employment which occurred in the drainage area between 1951 and 1984.

* These dates correspond to aerial photographs of Massachusetts. As such, comparable land use data are not available for other time periods.

** A description of the activities included in each land use category is contained in the publication "Remote Sensing 20 Years of Change in Massachusetts 1952-1972, Classification Manual, Land Use and Vegetative Cover Mapping," Research Bulletin #631, University of Massachusetts at Amherst, College of Food and Natural Resources, William P. MacConnell, September, 1975.

*** This is not a true loss of area but a change in the classification of water areas. In 1951 the ocean/freshwater interface was usually marked by the first road crossing. Areas landward of this road crossing were classified as open water and included in a municipalities total area. In 1971 and 1984 much of this area was reclassified as ocean, thus significantly reducing the acres in open water and the total municipal area.

**** The wetland category does not include wooded or forested wetland. The reason for this is that the aerial photographs from which the land use statistics were compiled were generally taken when vegetation was in "leaf."

The pattern of land use change showed a subtle difference over time. From 1951 to 1971 all open land categories lost land area. After 1971 there were only minor losses in agricultural land and water and wetlands. Most of the loss of open land after 1971 was in the forestland category. This pattern was true for both the eleven municipalities for which statistics are shown for the complete municipality and the 4 municipalities for which land use statistics are presented for only a part of the municipality. The trends in the major categories of land use are shown in Tables 1 and 2 and Figures 1 and 2.

TABLE 1
LAND USE CHANGES 1971 TO 1984
(15 Municipalities)

	<u>ACRES</u> <u>1971</u>	<u>ACRES</u> <u>1984</u>	<u>NET</u>	<u>CHANGE</u> <u>PERCENT</u>
Forestland	206,273	193,013	-13,260	-6.43%
Agriculture/Open	40,734	40,050	-684	-1.68%
Water/Inland Wetland	16,973	17,589	616	3.63%
Saltwater Wetland	5,367	5,350	-17	-0.32%
Mining/Waste Disposal	2,239	2,827	588	26.26%
Recreation	3,639	3,865	226	6.21%
Urban Land	<u>43,776</u>	<u>56,262</u>	<u>12,486</u>	<u>28.52%</u>
Total	<u>319,001</u>	<u>318,956</u>	<u>-45</u>	<u>-0.01%</u>

TABLE 2
LAND USE CHANGES 1951 TO 1984
(11 Municipalities)

	<u>ACRES</u> <u>1951</u>	<u>ACRES</u> <u>1971</u>	<u>ACRES</u> <u>1984</u>	1951-1984		1971-1984	
				<u>NET</u>	<u>CHANGE</u> <u>PERCENT</u>	<u>NET</u>	<u>CHANGE</u> <u>PERCENT</u>
Forestland	150,029	139,847	131,147	-18,882	-12.59%	-8,700	-6.22%
Agriculture/Open	41,862	30,168	29,310	-12,552	-29.98%	-858	-2.84%
Water/Inland Wetland	16,177	8,916	9,013	-7,164	-44.29%	97	1.09%
Saltwater Wetland	5,928	5,367	5,350	-578	-9.75%	-17	-0.32%
Mining/Waste Disposal	**	1,997	2,450	2,450		453	22.68%
Recreation	**	3,477	3,620	3,620		143	4.11%
Urban Land	<u>22,470</u>	<u>39,518</u>	<u>48,360</u>	<u>25,890</u>	<u>115.22%</u>	<u>8,842</u>	<u>22.37%</u>
Total	<u>236,466</u>	<u>229,290</u>	<u>229,250</u>	<u>-7,216</u>	<u>-3.05%</u>	<u>-40</u>	<u>-0.02%</u>

** These land use types were not used in 1951. Their areas were combined with other land use types and land use changes in them between 1951, 1971, and 1985 cannot be measured.

FIGURE 1

LAND USE CHANGES 1971 TO 1984

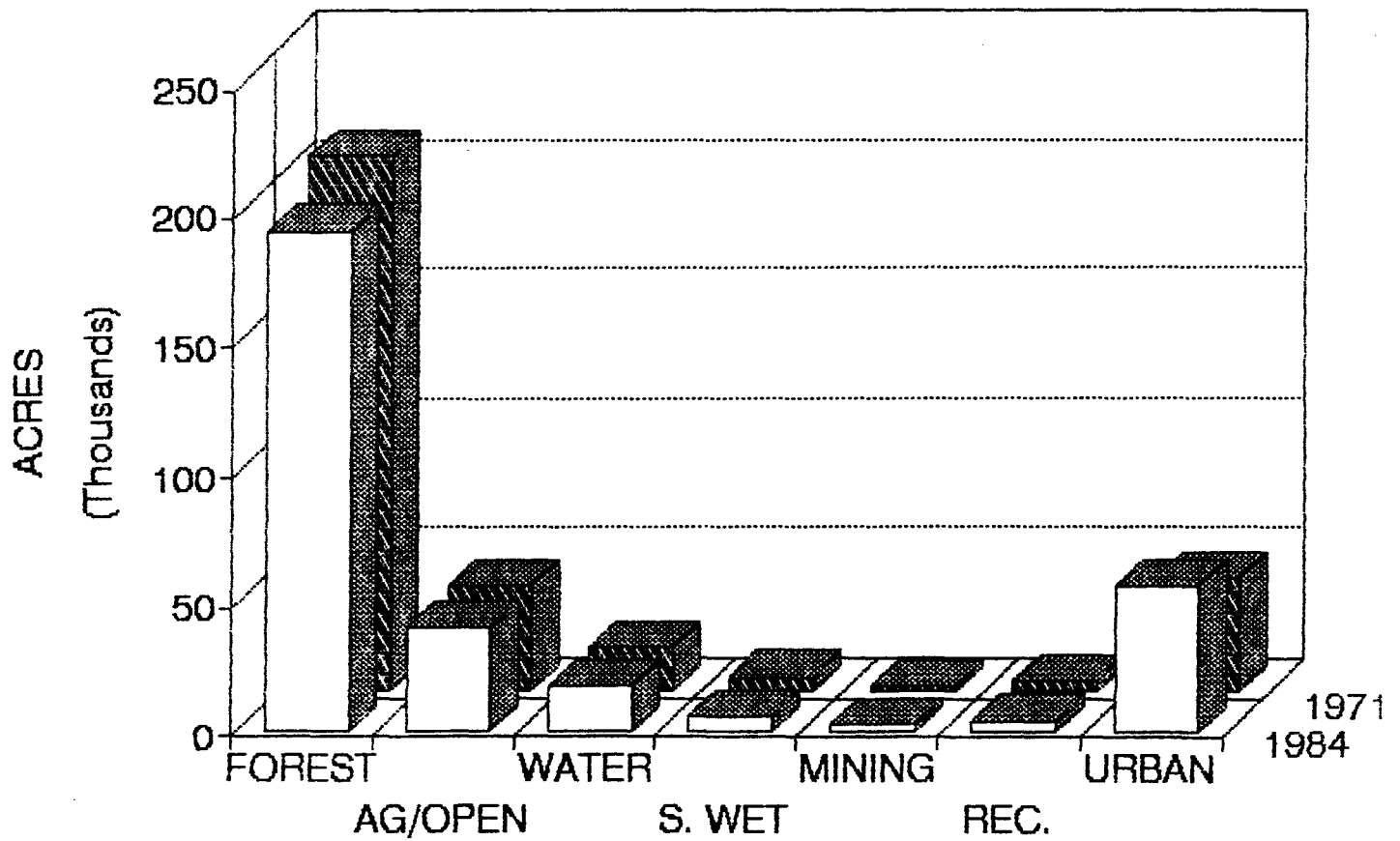
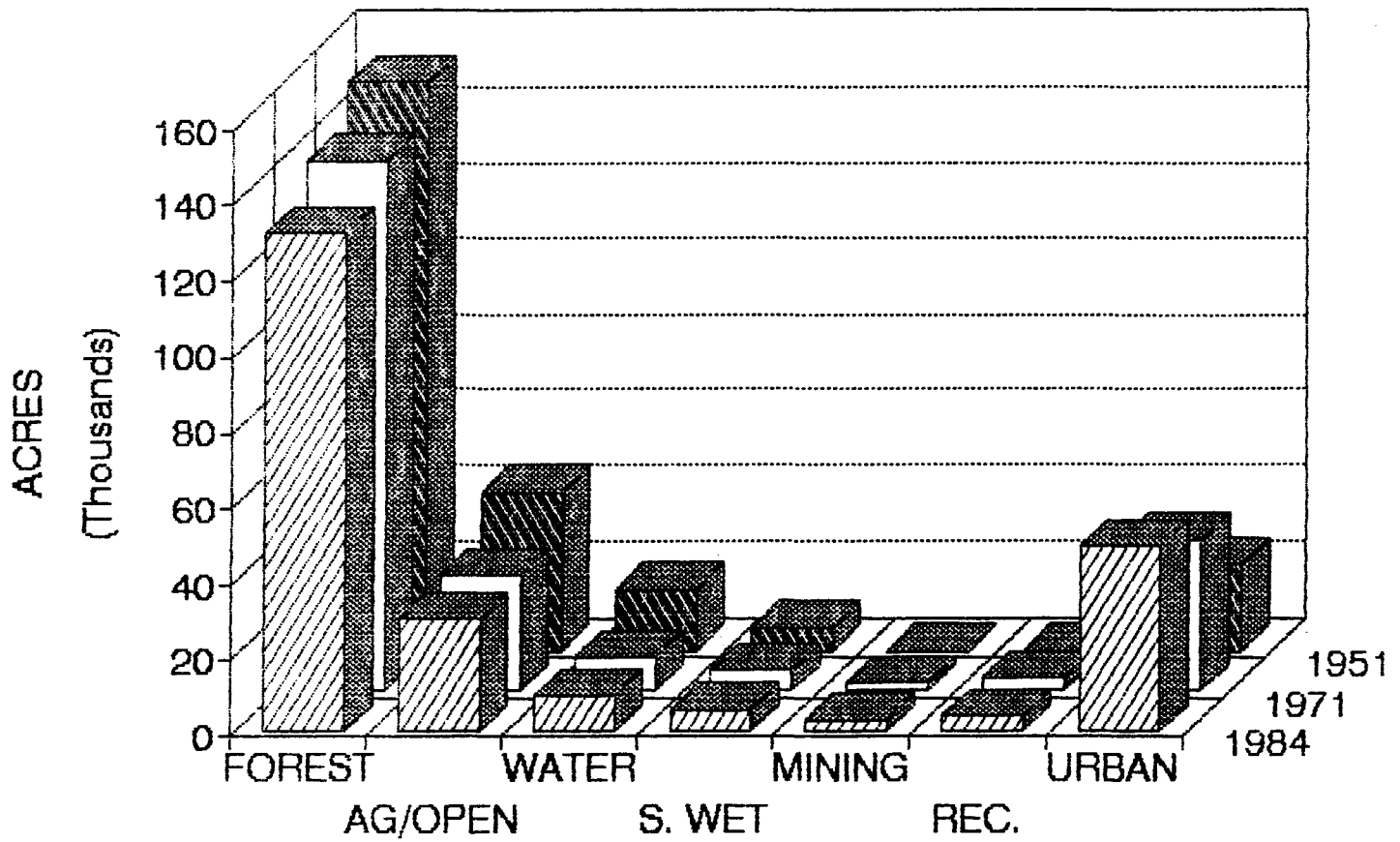


FIGURE 2

LAND USE CHANGES 1951 TO 1984



Trends in Detailed Land Use Categories

Data for the 11 municipalities which were included in their entirety show that the largest numerical decrease in land use was in forestland, which decreased from 150,029 acres in 1951 to 131,147 acres in 1984, a loss of 18,882 acres or 12.6 percent. Roughly half that acreage (8,700 acres) was lost between 1971 and 1984. Pastureland had the second largest decrease, with 10,731 acres lost out of a total of 16,900 acres (63.5 percent decline). The third largest loss was in open water, with a loss of 6,833 acres out of the total of 12,630 acres in 1951 (54.1 percent decline).* The fourth largest loss was in cropland, which dropped by nearly 3,000 acres or over 23 percent between 1951 and 1984. The majority of the loss in area in pastureland, open water and cropland occurred between 1951 and 1971.

Other types of wetland, including inland wetland and salt marsh, also showed decreases. Inland wetlands lost 331 acres, a decrease of over 9 percent out of the total of 3,537 acres. Salt marsh (both irregularly flooded and tidal) lost 578 acres, nearly 10 percent of the 1951 total of 5,928 acres. For the most part, these losses occurred prior to 1971.

While statistics were not available in 1951 for golf courses, the change recorded between 1971 and 1984 was insignificant. It is interesting to note that cranberry bogs increased from 4,553 acres in 1951 to 5,177 acres in 1984, an increase of 633 acres or 14 percent.

The largest single increase was in residential land use, which rose nearly 100 percent, from 18,338 acres in 1951 to 36,509 acres in 1984. Although breakdowns of residential land use by types were not available in 1951, the largest increase between 1971 and 1984 was in low density residential, an increase of 3,051 acres or 32 percent. This was followed closely by medium density residential, which increased by 2,665 acres or 21 percent. The second largest land use increase was in transportation, which rose from 170 acres in 1951 to 3,420 acres in 1984, an increase of 3,241 acres. This is primarily the result of the extensive highway construction program during the period which resulted in the construction of Routes I-195, 25, 140 and the Route 28 extension.

*See last footnote on page 3.

The third largest increase was in commercial acreage, which rose from 796 acres to 2,829 acres, an increase of 2,033 acres. The majority of this increase occurred prior to 1971. Changes in industrial land were more modest between 1951 and 1984. Since 1984 the pace of commercial and industrial development has quickened. Many small strip shopping centers have been built and most industrial parks have added tenants.

Adding in the four partial communities (Carver, Fall River, Middleborough, Plymouth) increases the total 1984 land area from 229,252 acres to 318,957 acres. The basic changes in land use types remain the same with the addition of these communities. Forestland still shows the biggest loss, with a total of 13,260 fewer acres in 1984 than in 1971. This is a reduction of approximately 6.5 percent. Open land showed a more dramatic change when the four partial municipalities were included. For the entire drainage basin the open land category decreased by 1,359 or 16 percent. Roughly half of the open land acreage lost in the drainage basin, 673 acres, was in Carver, Fall River and Middleborough.

The four partial municipalities had large increases in medium and low density residential land, open and public land, and cranberry bogs. In 1984, 7,559 acres of cranberry bogs were under cultivation in the four partial municipalities. This was an increase of 819 acres or 12 percent over the 1971 figure. For the entire drainage basin, the area in cranberry bogs increased from 11,557 acres in 1971 to 12,736 in 1984, an increase of 1,179 acres or 10 percent.

Trends in Population, Housing and Employment

The total population for the 15 communities in the Buzzards Bay drainage area grew from approximately 303,517 in 1950 to an estimated 394,930 in 1986,* an increase of 30 percent. However, if Fall River, which had only 12 medium

* 1986/1985 is used as a basis of comparison for population, housing and employment in order to be roughly comparable to the land use time periods. More current data on population and employment is shown in Appendix B.

density and 74 low density residential acres in the drainage area in 1984 and which experienced an overall population decline during the past few decades, is eliminated from this tally, then the overall population increase is much greater. The combined increase, excluding Fall River, is from 191,554 in 1950 to an estimated 304,510 in 1986, an increase of nearly 59 percent. Excluding Fall River, the population increase from 1970 to 1986 was 67,645 persons or 29 percent.

Likewise, the increase in total housing units from 1970 to 1985 (minus Fall River) is significant: 36,380 additional units, which represents a 44 percent increase. (Data is not available for 1950.)

Employment grew by even greater percentages in the Buzzards Bay drainage area. (Fall River is eliminated from the tally because Fall River had no commercial or industrial acres in the drainage area in 1985.) The total average annual employment for the area was 62,054 in 1971 and 106,491 in 1985, an increase of 44,437 jobs or 76 percent. (Statistics are not available from the same source for the 1950's.)

Land use changes for individual municipalities are described in Appendix A. More current data on municipal population and employment are shown in Appendix B.

TABLE 3

LAND USE IN 1951, 1971 AND 1984 IN BUZZARDS BAY DRAINAGE AREA

TOTALS FOR 11 COMPLETE COMMUNITIES:

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1984	1951 TO 1984 NET	%	1971 TO 1984 NET	%
CROPLAND	12,546	9,762	9,600	(2,946)	-23.48%	(162)	-1.66%
PASTURE	16,900	6,535	6,169	(10,731)	-63.50%	(366)	-5.61%
FORESTLAND	150,029	139,847	131,147	(18,882)	-12.59%	(8,699)	-6.22%
INLAND WETLAND	3,537	3,246	3,206	(331)	-9.35%	(27)	-0.83%
MINING	N.A.	1,353	1,598	N.A.		245	18.12%
OPEN LAND	7,660	6,947	6,253	(1,407)	-18.36%	(694)	-9.99%
PARTICIPATION REC.	N.A.	478	534	N.A.		56	11.69%
SPECTATOR REC.	N.A.	514	568	N.A.		54	10.50%
WATER-BASED REC.	N.A.	16	17	N.A.		1	6.25%
VERY HIGH DENSITY RESIDENTIAL		509	963			453	88.95%
HIGH DENSITY RES.	18,338	7,039	7,600	18,171	99.1%	566	8.04%
MEDIUM DENSITY RES.		12,761	15,426			2,665	20.89%
LOW DENSITY RES.		9,469	12,520			3,051	32.22%
MARINA	N.A.	193	203	N.A.		9	4.86%
COMMERCIAL	796	2,386	2,829	2,033	255.5%	443	18.58%
INDUSTRIAL	882	1,132	1,456	574	65.1%	324	28.64%
OPEN/PUBLIC LAND	2,275	3,328	4,146	1,871	82.3%	818	24.58%
TRANSPORTATION	179	2,894	3,420	3,241	1810.5%	526	18.18%
WASTE DISPOSAL	N.A.	644	852	N.A.		207	32.18%
WATER	12,640	5,670	5,807	(6,833)	-54.1%	136	2.39%
WOODY PERENNIAL	212	460	478	266	125.6%	30	6.59%
CRANBERRY BOG	4,544	4,817	5,177	633	13.9%	361	7.49%
POWER LINE	N.A.	1,647	1,633	N.A.		(13)	-0.78%
BEACH	N.A.	772	772	N.A.		0	0.00%
GOLF COURSE	N.A.	1,504	1,526	N.A.		23	1.51%
TIDAL SALT MARSH		1,975	1,970			(5)	-0.27%
IRREGULARLY FLOODED SALT MARSH	5,928	3,392	3,380	-578	-9.75%	(11)	-0.34%
TOTAL	236,466	229,292	229,252	(7,214)	-3.05%	(38)	-0.02%

N.A. = Not Available

The following land use types were not used in 1951. Their areas were combined with other land use types and land use changes in them between 1951, 1971 and 1984. cannot be measured.

Mining	Waste Disposal
Participation Recreation	Power Line
Spectator Recreation	Beach
Water Based Recreation	Golf Course
Marina	

TABLE 4

LAND USE IN 1971 AND 1984 IN BUZZARDS BAY DRAINAGE BASIN

LAND USE	TOTALS FOR 4 PARTIAL COMMUNITIES				TOTAL BASIN AREA			
	AREA IN ACRES 1971	AREA IN ACRES 1984	CHANGE NET	CHANGE %	AREA IN ACRES 1971	AREA IN ACRES 1984	CHANGE NET	CHANGE %
CROPLAND	880	886	6	0.68	10642	10486	(156)	-1.47
PASTURE	336	355	19	5.65	6871	6524	(347)	-5.05
FORESTLAND	66426	61866	(4560)	-6.86	206273	193013	(13260)	-6.43
INLAND WETLAND	3061	3012	(49)	-1.60	6307	6218	(89)	-1.41
MINING	196	322	126	64.29	1549	1920	371	23.95
OPEN LAND	1479	814	(665)	-44.96	8426	7067	(1359)	-16.13
PARTICIPATION REC.	146	228	82	56.16	624	762	138	22.12
SPECTATOR REC.	12	13	1	8.33	526	581	55	10.46
WATER-BASED REC.	4	4	0	0.00	20	21	1	5.00
VERY HIGH DENSITY RESIDENTIAL	0	10	10		509	973	464	91.16
HIGH DENSITY RES.	128	350	222	173.44	7167	7950	783	10.93
MEDIUM DENSITY RES.	1673	3060	1387	82.90	14434	18486	4052	28.07
LOW DENSITY RES.	1619	2688	1069	66.03	11088	15208	4120	37.16
MARINA	0	0	0	0.00	193	203	10	5.18
COMMERCIAL	82	101	19	23.17	2468	2930	462	18.72
INDUSTRIAL	26	65	39	150.54	1158	1521	363	31.35
OPEN/PUBLIC LAND	163	1018	855	524.54	3491	5164	1673	47.92
TRANSPORTATION	567	610	43	7.58	3461	4030	569	16.44
WASTE DISPOSAL	46	55	9	19.56	690	907	217	31.45
WATER	4996	5565	569	11.39	10666	11372	706	6.62
WOODY PERENNIAL	60	60	0	0.00	520	538	18	3.46
CRANBERRY BOG	6740	7559	819	12.15	11557	12736	1179	10.20
POWER LINE	1071	1066	(4)	0.37	2718	2699	(19)	-0.07
BEACH	0	0	0	0.00	772	772	0	0.00
GOLF COURSE	0	0	0	0.00	1504	1526	22	1.46
TIDAL SALT MARSH	0	0	0	0.00	1975	1970	(5)	-0.03
IRREGULARLY FLOODED SALT MARSH	0	0	0	0.00	3392	3380	(12)	-0.04
TOTAL	89711	89707	(4)		319001	318957	(46)	

DEMOGRAPHICS FOR BUZZARDS BAY DRAINAGE AREA

TABLE 5

POPULATION CHANGES

COMMUNITY	POPULATION			POPULATION		CHANGE		CHANGE		
	1950	1960	1970	1980 POP. EST.	7/86 POP. EST.	1950 TO 1986 NET	%	1970 TO 1986 NET	%	
ACUSHNET	4,401	5,755	7,767	8,704	8,808	9,070	4,669	106.09%	1,303	16.78%
BOURNE	4,720	14,011	12,636	13,874	14,995	15,730	11,010	233.26%	3,094	24.49%
CARVER	1,530	1,949	2,420	6,988	8,934	10,470	8,940	584.31%	8,050	332.64%
DARTMOUTH	11,115	14,607	18,800	23,966	24,840	25,610	14,495	130.41%	6,810	36.22%
FAIRHAVEN	12,764	14,339	16,332	15,759	15,645	15,690	2,926	22.92%	(642)	-3.93%
FALMOUTH	8,662	13,037	15,492	23,640	25,007	25,440	16,778	193.70%	9,948	64.21%
MARION	2,250	2,881	3,466	3,842	4,027	4,170	1,920	85.33%	704	20.31%
MATTAPOISETT	2,265	3,117	4,500	5,687	5,785	5,850	3,585	158.28%	1,350	30.00%
NEW BEDFORD	109,189	102,477	101,777	98,478	97,738	96,450	(12,739)	-11.67%	(5,327)	-5.23%
ROCHESTER	1,328	1,559	1,770	3,205	3,542	3,980	2,652	199.70%	2,210	124.86%
WAREHAM	7,569	9,461	11,492	18,457	19,206	20,340	12,771	168.73%	8,848	76.99%
WESTPORT	1,989	6,641	8,200	13,763	13,861	14,010	12,021	604.37%	5,810	70.85%
SUBTOTALS	167,782	189,834	204,652	236,363	242,309	246,810	79,028	47.10%	42,158	20.60%
FALL RIVER	111,963	99,942	96,898	92,574	92,038	90,420	(21,543)	-19.24%	(6,478)	-6.69%
MIDDLEBOROUGH	10,164	11,065	13,607	16,404	17,116	17,410	7,246	71.29%	3,803	27.95%
PLYMOUTH	13,608	14,445	18,686	35,913	38,384	40,290	26,682	196.08%	21,684	116.54%
TOTALS	303,517	315,286	333,763	381,254	389,847	394,930	91,413	30.12%	61,167	18.33%
TOTALS MINUS FALL RIVER:	191,554	215,344	236,865	288,680	297,809	304,510	112,956	58.97%	67,645	28.56%

ACREAGE:	TOTAL	BASIN	% TOTAL
CARVER	27,504	25,452	92.54%
FALL RIVER	24,460	12,672	51.81%
MIDDLEBOROUGH	46,418	23,296	50.19%
PLYMOUTH	62,915	28,285	44.96%

SOURCE: U.S. Census of Population (1950, 1960, 1970, 1980), Current Population Estimates (1986).

TABLE 6

HOUSING CHANGES

COMMUNITY	SINGLE FAMILY		MULTI FAMILY		T O T A L			% CHANGE	
	1970	1980	1970	1980	1970	1980	1985 EST.	1970-80	1970-85
ACUSHNET	1,824	2,314	528	738	2,352	3,052	3,270	29.76%	39.03%
BOURNE	3,221	4,115	925	930	4,146	5,145	6,261	24.10%	51.01%
CARVER	711	1,971	54	306	765	2,277	3,302	197.65%	331.63%
DARTMOUTH	5,140	6,912	927	1,161	6,067	8,073	9,016	33.06%	48.61%
FAIRHAVEN	3,938	4,358	1,345	1,567	5,283	5,925	6,071	12.15%	14.92%
FALMOUTH	5,396	9,163	780	1,414	6,176	10,577	13,117	71.26%	112.39%
MARION	1,038	1,370	100	107	1,138	1,477	1,626	29.79%	42.88%
MATTAPoisETT	1,252	1,785	217	262	1,469	2,047	2,249	39.35%	53.10%
NEW BEDFORD	10,740	15,949	25,828	23,533	36,568	39,482	40,156	7.97%	9.81%
ROCHESTER	566	1,004	38	36	604	1,040	1,272	72.19%	110.60%
WAREHAM	3,697	5,858	694	1,586	4,391	7,444	7,926	69.53%	80.51%
WESTPORT	2,670	3,997	422	686	3,092	4,683	4,927	51.46%	59.35%
SUBTOTALS	40,193	58,796	31,858	32,326	72,051	91,222	99,193	26.61%	37.67%
FALL RIVER	6,130	8,381	20,013	28,623	34,143	37,004	38,430	8.38%	12.56%
MIDDLEBOROUGH	2,805	3,751	1,500	1,874	4,305	5,625	5,997	30.66%	39.30%
PLYMOUTH	4,139	9,841	2,678	3,275	6,817	13,116	14,363	92.40%	110.69%
TOTALS	53,267	80,769	64,049	66,098	117,316	146,967	157,983	25.27%	34.66%
TOTALS MINUS FALL RIVER:									
	47,137	72,388	36,036	37,475	83,173	109,963	119,553	32.21%	43.74%

SOURCE: U.S. Census of Housing (1970, 1980); Housing Units Authorized By Building Permits (1981 through 1986).

TABLE 7

EMPLOYMENT CHANGES

AVERAGE ANNUAL EMPLOYMENT

<u>COMMUNITY</u>	<u>1971</u>	<u>1985</u>	<u>CHANGE</u>	
			<u>NO.</u>	<u>PERCENT</u>
Acushnet	1,536	1,934	398	25.91%
Bourne	1,607	5,087	3,480	216.55%
Carver	84	744	660	785.71%
Dartmouth	3,426	7,766	4,340	126.68%
Fairhaven	1,860	4,559	2,699	145.11%
Falmouth	4,044	11,132	7,088	175.27%
Marion	746	1,555	809	108.45%
Mattapoissett	504	1,611	1,107	219.64%
New Bedford	38,915	47,352	8,437	21.68%
Rochester	81	379	298	367.90%
Wareham	1,489	4,744	3,255	218.60%
Westport	<u>1,088</u>	<u>2,304</u>	<u>1,216</u>	<u>111.76%</u>
Sub-totals	55,380	89,167	33,787	61.01%
Fall River	35,575	40,881	5,306	14.91%
Middleborough	2,707	5,222	2,515	92.91%
Plymouth	<u>3,967</u>	<u>12,102</u>	<u>8,135</u>	<u>205.07%</u>
Totals	97,629	147,372	49,743	50.95%
Totals Minus Fall River	62,054	106,491	44,437	71.61%

SOURCE: Mass. Division of Employment Security, Employment and Wages in Massachusetts.

APPENDIX A

The growth rates and land use changes of the individual communities in the Buzzards Bay Drainage Area are examined below.

Acushnet

This community had a total of 12,114 acres in 1984. The largest land use losses from 1951 to 1984 were: cropland, which lost 710 acres, a 61 percent loss; pasture, which lost 221 acres, an 18 percent loss; and forestland, which lost 772 acres, a 10 percent loss. The single largest gain was in residential land, an increase of 681 acres or 68 percent. This was followed by 100 additional acres (a 55 percent increase) of open water and 66 additional acres of commercial development.

Between 1971 and 1984, the largest decreases in land use occurred in the categories of forestland (409 acres, 5.5 percent) and open land (59 acres, 13.8 percent). The largest increases occurred in low density residential (260 acres, 46.4 percent), medium density residential (80 acres, 13.7 percent), mining (52 acres, 22.5 percent), and waste disposal (36 acres, 135.1 percent).

Acushnet's population grew from 4,401 persons in 1950 to an estimated 9,070 in 1986, a 106 percent increase. The increase between 1970 and 1986 was from 7,767 to 9,070, or by 17 percent. Residential dwelling units grew from 2,352 in 1970 to an estimated 3,270 in 1985, a 39 percent increase. Annual average employment grew from 1,536 in 1971 to 1,934 in 1985, a 26 percent increase.

Bourne

Bourne had a total land area of 26,422 acres in 1984. By far the largest land use loss in the town was in forestland. Overall, forestland fell from 21,326 acres in 1951 or over three-quarters of the town's area to 18,034 in 1984, a loss of 15 percent. The second largest land use loss for Bourne was open water, which lost 1,753 acres between 1951 and 1971 or 89 percent of the total.* There was no loss to its remaining 211 acres of water between 1971

*See last footnote on page 3.

and 1984. The third largest loss was in pasture, which fell from 980 acres in 1951 to 53 acres in 1984, a loss of 95 percent.

The largest gain was in residential land use, which grew from 1,514 acres in 1951 to 4,185 acres in 1984, a growth of 2,671 acres or 176 percent. Nearly 900 of these acres, about one-third, were absorbed between 1971 and 1984. Of the total 4,185 residential acres in 1984, 27 percent went towards very high or high density residential use. The second largest gain was in transportation, which grew from 17 acres in 1951 to 298 acres in 1984. The third largest gain was in open/public land, which grew from 294 acres in 1951 to 606 acres in 1984.

Between 1971 and 1984, the only significant loss in land use occurred in the forestland category (1,265 acres or 6.6 percent loss). Large increases in land use were recorded in low density residential (370 acres or 31.6 percent gain), medium density residential (336 acres or 28.8 percent gain), very high density residential (140 acres or 50.2 percent gain), open and public land (179 acres or 41.9 percent gain), and commercial land (67 acres or 28.8 percent gain).

Bourne's population grew from 4,720 in 1950 to an estimated 15,730 in 1986, an increase of 11,010 persons or 233 percent. Its 1970 to 1986 population growth was 3,094 persons or nearly 15 percent. The town's housing stock grew from 4,146 units in 1970 to an estimated 5,145 units in 1985, an increase of over 50 percent. Its annual average employment grew from 1,607 in 1971 to 5,087 in 1985, a 217 percent increase.

Carver

Carver had a total of 27,504 acres in 1984. Of this acreage, 25,450 acres or 93 percent of the town's total area is in the Buzzards Bay Drainage Area. Within the drainage area, the largest land use change between 1971 and 1984 was the loss of forestland. This dropped from 15,912 acres to 13,914 acres, a loss of roughly 2,000 acres or 13 percent.

The largest gain was in residential land use, which went from 1,088 acres in 1971 to 2,268 acres in 1984, a gain of 1,180 acres or 108 percent. More than half of the 1,180 acres were in the category of medium density residential

(614 acres), 30 percent were low density residential (361 acres) and 17 percent were high density (195 acres). The second largest gain was in cranberry bogs, which went from 4,610 acres to 5,087 acres, an increase of 477 acres or 10 percent. This was the largest increase in the drainage basin. The third largest gain was in open/public land which increased by 196 acres.

Carver's population grew from 2,420 in 1970 to an estimated 10,470 in 1986, a 333 percent growth rate. Residential units in Carver went from 765 in 1970 to an estimated 3,302 in 1985, a 332 percent increase. Average annual employment grew from 84 in 1971 to 744 in 1985, an increase of 660 jobs or 785 percent.

Dartmouth

Dartmouth's area totalled 39,569 acres in 1984. The largest change in land use was the loss of forestland, which dropped from 25,815 acres in 1951 (64 percent of the total town) to 23,526 acres in 1984 (60 percent of the town). This was a loss of 2,289 acres or 9 percent of total forestland. The second largest shift was the loss of 2,185 acres of cropland, nearly half the total amount of cropland in 1951. Open land dropped 400 acres and pasture dropped 362 acres. Inland wetland and open water* ranked fifth and sixth with a loss of 246 acres and 142 acres, respectively.

The largest gain was in residential land use, which rose from 2,653 in 1951 to 4,886 acres in 1984, a gain of 84 percent. The largest category of residential land was medium density residential, with 2,697 acres in 1984. This is an addition of 717 acres between 1971 and 1984 alone. Low density residential gained 289 acres in that time period. In the period from 1951 to 1984 open/public land gained 553 acres, commercial land gained 314 acres and transportation gained 241 acres. Cranberry bogs increased from 8 acres to 77 acres, a gain of 69 acres.

* See last footnote on page 3.

Large declines in land use were recorded in the categories of forestland (999 acres or 4.1 percent loss), pasture (242 acres or 9.5 percent loss), open land (221 acres or 14.1 percent loss) and cropland (168 acres or 6.6 percent loss) between 1971 and 1984. The largest increase between 1971 and 1984 occurred in the medium density residential category (717 acres or 36.2 percent gain). Other categories experiencing large increases were low density residential (289 acres or 19.1 percent gain), open land and public land (173 acres or 27.6 percent gain) and commercial (126 acres or 44.1 percent gain).

The population of Dartmouth grew from 11,115 in 1950 to an estimated 25,610 in 1986, an 130 percent increase. Nearly half of that increase occurred after 1970. The number of housing units grew from 6,607 in 1970 to an estimated 9,016 in 1985, an increase of 49 percent. Average annual employment rose from 3,426 in 1971 to 7,766 in 1985, a growth of 127 percent.

Fairhaven

The Town of Fairhaven contained 8,018 acres in 1984. Its largest land use loss was cropland, which fell from 1,142 acres in 1951 to 555 acres in 1984, a loss of over 50 percent. The second largest loss was forestland, which fell from 3,060 acres to 2,829 acres, a loss of 231 acres or 7.6 percent. Inland wetlands fell from 160 acres to 17 acres, a loss of 143 acres or 89 percent (this change occurred prior to 1971).

The single largest land use gain was in residential land use, which grew from 1,732 acres in 1951 to 2,064 acres in 1984. This is a net gain of 332 acres, a 19 percent increase. The second largest gain was in transportation use, which grew from 26 acres to 235 acres, a gain of 209 acres. The third largest gain was in commercial use, which grew from 38 acres to 169 acres, a gain of 131 acres.

In the period from 1971 to 1984, the categories with the largest land use declines were forestland (173 acres or 5.7 percent loss) and pasture (106 acres or 14.1 percent loss). The category experiencing the bulk of the increase was transportation (169 acres or 255.8 percent gain). This is the result of the construction of routes I-195 and 240.

The town's population grew from 12,764 in 1950 to an estimated 15,690 in 1986, a gain of 2,426 persons or 23 percent. However, the population appears to have hit a peak of 16,332 in 1970. The loss between 1970 and 1986 was approximately 640 persons or 4 percent. Total housing units grew from 5,238 in 1970 to an estimated 6,071 in 1985, a 15 percent increase. Average annual employment grew from 1,860 in 1971 to 4,559 in 1985, an increase of nearly 2,700 or 145 percent.

Fall River

The total area of Fall River within the Buzzards Bay Drainage Area is 12,672 acres. This is roughly 52 percent of the total city acreage. The largest land use change was in open water, which gained 556 acres between 1971 and 1984. At the same time, 532 acres were lost in the category of open land. Other categories experiencing change during the period were forestland (a loss of 148 acres, 1.5 percent) and open and public land (a gain of 110 acres, 343.8 percent). No other major changes (i.e. above 25 acres) occurred in this time period.

This is a sparsely settled area of Fall River. There are only 86 residential acres and no commercial or industrial acres.

Falmouth

The Town of Falmouth totalled 29,396 acres in 1984. The single largest land use change was in forestland, which fell from 19,391 acres in 1951, about two-thirds of the town, to 15,642 acres in 1984, a loss of nearly 3,750 acres or 19 percent. The second biggest loss was in pasture, which fell from 3,217 acres to a mere 188 acres in 1984, an overall loss of 3,209 acres or 94 percent. The third largest loss was in open water,* which dropped from 3,188 acres to 1,085 acres, a loss of 2,103 acres or 66 percent.

* See last footnote on page 3.

The largest gain was in residential land uses, which rose from 2,282 acres in 1951 to 7,745 acres in 1984, a net change of 5,464 acres or nearly 240 percent. Within this category, the biggest gain was in medium density residential with 4,244 total acres in 1984, followed by low density residential with 2,238 total acres in 1984. Land used for commercial purposes increased from 58 acres in 1951 to 450 acres in 1984, a gain of 675 percent. One smaller change which nonetheless may have potential impacts on water quality is the loss of 59 acres of inland wetlands between 1951 and 1984.

With the exception of the change in the area of open water, the same pattern of land use change was observed from 1971 to 1984 as occurred in the 1951 to 1971 period. There were only minor changes in wetlands after 1971.

The population gain of 16,778 persons between 1950 and 1986 was the largest in the Buzzards Bay Drainage Area. The population grew from 8,662 to an estimated 25,440 people in that time period. Most of that growth, about 9,950 or nearly 60 percent, occurred after 1970. The number of housing units grew from 6,176 in 1970 to an estimated 13,117 in 1985, a growth of 6,940 units or 112 percent. Average annual employment grew from 4,044 jobs in 1971 to 11,132 in 1985, an increase of 7,088 jobs or 175 percent.

Marion

The Town of Marion contained 9,074 acres in 1984. A huge portion, 6,731 acres or 74 percent of the land, was forested in 1951. This dropped to 5,838 acres in 1984, a drop of 893 acres or 13 percent of the total forested areas. Pastureland fell from 325 acres to 75 acres, a drop of 250 acres or 77 percent. The third largest decrease was in cropland which dropped from 202 acres in 1951 to 78 acres in 1984.

The single largest gain was in residential land use, which grew from 706 acres to 1,329 acres between 1951 and 1984, a gain of 623 acres or 88 percent. Much of the gain in residential land was in low density residential, which grew 190 acres between 1971 and 1984.

Between 1971 and 1984 the only major loss in land use occurred in the forestland category (305 acres or 5.0 percent loss). Low density residential had the largest gain (190 acres or 28.6 percent gain), followed by open and public land (56 acres or 66.1 percent gain).

Marion's population grew from 2,250 in 1950 to an estimated 4,170 in 1986, a gain of 1,920 or 85 percent. Of that net gain, 704 or 37 percent were added between 1970 and 1986. Housing units grew from 1,138 units in 1970 to an estimated 1,626 in 1985, a gain of 43 percent. Average annual employment grew from 746 in 1971 to 1,555 in 1985, an increase of 809 new jobs, more than doubling the 1971 level.

Mattapoisett

The Town of Mattapoisett totalled 11,170 acres in 1984. The biggest land use loss between 1951 and 1984 was 703 acres of pasture, which was 84 percent of the 1951 total of 842 acres. The second largest loss was in forestland, which fell from 8,160 acres to 7,741 acres, a loss of 419 acres. The third largest loss was in inland wetland, which fell from 189 acres to 70 acres, a loss of 119 acres. Other wetland losses since 1951 were 87 acres of salt marsh and 5 acres of open water* (these losses occurred prior to 1971). Cranberry bogs also lost 7 acres between 1951 and 1971, but no acres since then.

The largest gain in land use was in the residential category, which grew from 670 to 1,490 acres, a gain of 820 acres or 122 percent. The bulk of this gain occurred before 1971. Only 233 acres of residential land were added between 1971 and 1984. The vast majority of these were low density residential. Transportation increased from no acres in 1951 to 211 acres in 1984. Commercial land use increased from no acres in 1951 to 94 acres in 1984. Industrial land use increased from zero to 33 acres.

* See last footnote on page 3.

Between 1971 and 1984 the only major decline in land use occurred in the forestland category (277 acres or 3.5 percent loss). As previously stated, the major increase was in the low density residential category.

The population of Mattapoisett grew from 2,265 in 1950 to an estimated 5,850 in 1986. About 38 percent of that growth (1,350 persons) occurred between 1970 and 1986. Housing units grew from 1,469 units in 1970 to an estimated 2,249 units in 1985, a growth of 780 units or 53 percent. Annual average employment grew from 504 jobs in 1971 to 1,611 in 1985, an increase of 1,107 jobs.

Middleborough

The total area of Middleborough within the Buzzards Bay Drainage Area is 23,296 acres or 50 percent of the total area of the town. The largest land use change in this area since 1971 has been the loss of 972 acres of forestland. This fell from 17,868 acres in 1971 (76 percent of the total area within the drainage basin) to 16,714 acres in 1984 (72 percent). Residential land use grew by a total of 471 acres, with the largest gain (428 acres) being in low density residential use. Cranberry bogs grew from 1,103 acres in 1971 to 1,411 acres in 1984, an increase of 308 acres or 28 percent. Open/public land grew from 76 acres in 1971 to 319 acres in 1984, an increase of 246 acres or 337 percent.

The population of the entire Town of Middleborough has grown 28 percent since 1970, from 13,607 to an estimated 17,416 in 1986. Furthermore, housing units in the town grew from 4,305 in 1970 to an estimated 5,997 in 1985, an increase of 39 percent. Although this area of Middleborough in the Buzzards Bay Drainage Basin is relatively sparsely settled, its population and housing units must have grown proportionally to the rest of the town if one considers the 44 percent growth in residential land use.

Very little land in the Middleborough portion of the drainage basin is used for commercial or industrial purposes.

New Bedford

The City of New Bedford contained a total of 12,942 acres in 1984. The largest land use change was in forestland, which dropped from 5,221 acres in 1951 to 3,781 acres in 1984, a loss of 1,440 acres or nearly 28 percent. Pasture fell from 501 acres to 140 acres, a loss of 361 acres, and cropland fell from 340 to 8 acres, a loss of 332 acres or 98 percent.

The largest increase was in transportation, which rose from 96 acres in 1951 to 943 acres in 1984. In addition to the construction of several new limited access highways, the increase in transportation was also the result of a significant increase in the size of the New Bedford Airport. The major change occurred before 1971, with about 800 new acres going to transportation use. The second largest increase was in industrial acres, which grew from 689 to 945 acres, an increase of 256 acres or 37 percent.

In the period from 1971 to 1984 large declines in land use occurred in the categories of forestland (332 acres or 8.1 percent loss) and open and public land (62 acres or 6.8 percent loss). Increases occurred in industrial land (142 acres or 17.6 percent gain), very high density residential (97 acres or 7.8 percent gain), high density residential (45 acres or 1.6 percent gain), and transportation (44 acres or 4.9 percent gain).

New Bedford's population fell from 109,189 in 1950 to an estimated 96,450 in 1986, a loss of 12,739 or nearly 12 percent. Housing units grew in this time period, from 36,568 in 1970 to an estimated 40,156 in 1985, a gain of 3,588 units or nearly 10 percent. Average annual employment rose from 38,915 in 1971 to 47,352 in 1985, an increase of 8,437 jobs or 22 percent.

Plymouth

The total area of Plymouth within the Buzzards Bay Drainage Area is 28,285 acres or 45 percent of the total area of the town. The largest land use change in this area since 1971 has been the loss of 1,442 acres of forestland. This fell from 22,840 acres in 1971 (81 percent of the town's total area within the drainage basin) to 21,398 acres in 1984 (76 percent). Residential land use grew by a total of 1,012 acres, with the largest gain (730 acres)

being in medium density residential use. Open/public land grew from 30 acres in 1971 to 333 acres in 1984, an increase of 303 acres or 1,010 percent.

The population of the entire Town of Plymouth has grown 117 percent since 1970, from 18,606 to an estimated 40,290 in 1986. Furthermore, housing units grew from 6,817 in 1970 to an estimated 14,363 in 1985, an increase of 111 percent. Although the area of Plymouth in the Buzzards Bay Drainage Basin is relatively sparsely settled, its population and housing units must have grown rapidly if one considers the 85 percent growth in residential land use in the Plymouth portion of the Buzzards Bay drainage area.

Very little land in the Plymouth portion of the drainage basin is used for commercial or industrial purposes.

Rochester

The total area of Rochester was 23,111 acres in 1984. The largest land use change was pasture, which dropped from 2,030 acres in 1951 to 972 acres in 1984, a loss of 1,058 acres or 52 percent. The second largest change was in forestland, which dropped from 16,315 acres (roughly 70 percent of the town) to 15,296 acres, a loss of 1,019 acres or over 6 percent.

The single largest gain was in residential use, which rose from 124 acres in 1951 to 1,002 acres in 1984. Of these residential acres, the largest proportion was low density residential, which totalled 908 acres (90 percent of all residential acres) in 1984. The second largest land use gain was cranberry bogs, which grew from 1,312 acres to 1,754 acres, a gain of 442 acres or 34 percent. Open/public land grew from zero acres to 293 acres, the third largest gain. With the exception of pastureland, which has remained relatively stable since 1971, the same pattern of land use change occurred in the 1971 to 1984 period as occurred in the 1951 to 1971 period.

The town's population grew from 1,328 in 1950 to an estimated 3,980 in 1986, an increase of 2,652 or 200 percent. Eighty-three percent of this growth occurred after 1970. Housing units grew from 604 in 1970 to an estimated 1,272 in 1985, an increase of 668 or 111 percent. Average annual employment grew from 81 in 1971 to 379 in 1985, an increase of 298 jobs.

Wareham

The Town of Wareham had a total of 23,439 acres in 1984. The largest land use change by far was the loss of forestland. This fell from 14,866 acres, 63 percent of the total town area in 1951, to 12,283 acres in 1984. Pastureland fell from 828 acres to 116 acres, a loss of 712 acres. Cropland fell from 401 to 22 acres, a loss of 379 acres.

Residential use nearly doubled, with total residential acreage growing from 1,977 in 1951 to 3,850 in 1984, an increase of 1,873 acres. Increases were large in all residential categories between 1971 and 1984: 190 acres in high density, 209 in medium density and 182 in low density. Between 1951 and 1984, transportation grew from 14 to 615 acres, commercial land grew from 24 to 379 acres and open/public land grew from 134 to 434 acres.

Water or wetland changes were as follows: inland wetland grew by 103 acres, open water grew by 88 acres and cranberry bogs grew by 86 acres.

As in many other towns, forestland experienced the principal decrease in land use between 1971 and 1984 (1,063 acres or 8.0 percent loss). Inland wetlands also experienced a decline of 47 acres or 5.7 percent. During the 1971 to 1984 period, increases were observed in a number of land use categories, including medium density residential (209 acres or 16.9 percent gain), high density residential (190 acres or 17.7 percent gain), low density residential (182 acres or 19.6 percent gain), transportation (172 acres or 37.5 percent gain), open and public land (99 acres or 27.5 percent gain), cranberry bogs (82 acres or 3.6 percent gain), and commercial (42 acres or 12.6 percent gain).

Wareham's population grew from 7,569 in 1950 to an estimated 20,340 in 1986, an increase of 12,771 or nearly 170 percent. Most of this growth (70 percent) occurred after 1970. Housing units grew from 4,391 in 1970 to an estimated 7,926 in 1985. This is an increase of 3,535 units or nearly 70 percent. Average annual employment grew from 1,439 in 1971 to 4,744 in 1985, an increase of 230 percent.

Westport

The Town of Westport's total acreage was 33,496 in 1984. The largest change in land use was in open water,* which dropped from 4,396 acres in 1951 to 1,269 acres in 1984, a net loss of 3,127 acres. All of this loss occurred before 1971. The second largest change was a loss in pasture, which fell from 3,756 acres in 1951 to 547 acres in 1984, a loss of 3,209 acres or 85 percent. This trend was reversed slightly after 1971 when 44 acres were gained. Forestland fell from 21,344 acres (64 percent of the total town area in 1984) to 19,149 acres, a loss of 2,195 acres or 10 percent.

The largest gain was in residential uses, which grew from 1,710 acres in 1951 to 4,120 in 1984, a gain of 2,410 acres. Although detailed data by residential subcategory was not available in 1951, the largest gain from 1971 to 1984 was in low density residential with 531 additional acres, followed by medium density residential with 233 additional acres. The second largest increase was in cropland, which grew from 2,550 acres in 1951 to 4,739 acres in 1984, an increase of 2,189 or 86 percent. Westport was the only municipality in the Buzzards Bay Drainage Basin to experience a large increase in cropland. In 1984, forty six percent of the cropland in the drainage basin was located in Westport. The third largest increase was transportation, which grew from 3 acres in 1951 to 271 acres in 1984.

Between 1971 and 1984, major reductions in land use occurred in the categories of forestland (889 acres or 4.4 percent loss) and open land (123 acres or 11.6 percent loss). In addition to residential, the categories experiencing increases in the 1971 to 1984 period were open and public land (66 acres or 44.8 percent gain), cropland (51 acres or 1.1 percent gain), pasture (44 acres or 8.8 percent gain), and commercial (30 acres or 14.7 percent gain).

*See last footnote on page 3.

The population of Westport grew from 1,989 in 1950 to an estimated 14,010 in 1986, an increase of 12,021 or over 600 percent. Approximately half of this took place after 1970. Housing units grew from 3,092 units in 1970 to an estimated 4,927 in 1986, an increase of nearly 60 percent. Average annual employment grew from 1,088 in 1971 to 2,304 in 1985, an increase of 1,216 or 112 percent.

HISTORICAL LAND USE CHANGES IN ACUSHNET

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	1951 TO 1985 %	1971 TO 1985 NET	1971 TO 1985 %
CROPLAND	1172	448	462	-710	-60.6%	14	3.1%
PASTURE	1208	1007	987	-221	-18.3%	-20	-2.0%
FORESTLAND	7800	7437	7028	-772	-9.9%	-409	-5.5%
INLAND WETLAND	221	200	199	-22	-9.9%	-1	-0.3%
MINING	N.A.	230	282	N.A.		52	22.5%
OPEN LAND	261	427	369	108	41.2%	-59	-13.8%
PARTICIPATION REC.	N.A.	23	30	N.A.		7	30.0%
SPECTATOR REC.	N.A.	3	3	N.A.		0	0.0%
WATER-BASED REC.	N.A.	5	5	N.A.		0	0.0%
VERY HIGH DENSITY RESIDENTIAL		0	3			3	
HIGH DENSITY RES.	1008	187	204	681	67.6%	17	9.0%
MEDIUM DENSITY RES.		584	664			80	13.7%
LOW DENSITY RES.		559	819			260	46.4%
MARINA	N.A.	0	0	N.A.		0	
COMMERCIAL	12	71	78	66	552.0%	7	9.9%
INDUSTRIAL	29	24	24	-5	-16.5%	0	0.0%
OPEN/PUBLIC LAND	52	93	108	56	107.9%	15	16.4%
TRANSPORTATION	0	16	20	20		4	26.3%
WASTE DISPOSAL	N.A.	27	63	N.A.		36	135.1%
WATER	184	284	284	100	54.5%	0	0.0%
WOODY PERENNIAL	148	174	173	25	17.1%	0	0.0%
CRANBERRY BOG	88	126	119	31	34.8%	-7	-5.6%
POWER LINE	N.A.	169	167	N.A.		-2	-1.3%
BEACH	N.A.	0	0	N.A.		0	0.0%
GOLF COURSE	N.A.	0	0	N.A.		0	0.0%
TIDAL SALT MARSH		0	0			0	0.0%
IRREGULARLY FLOODED SALT MARSH	32	23	23	-9	-28.3%	0	0.0%
TOTAL	12215	12117	12114	-101	-0.8%	-2	-0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN BOURNE

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	%	1971 TO 1985 NET	%
CROPLAND	65	73	67	2	3.1%	-6	-8.2%
PASTURE	980	56	53	-927	-94.6%	-3	-5.4%
FORESTLAND	21326	19299	18034	-3292	-15.4%	-1265	-6.6%
INLAND WETLAND	176	256	256	80	45.5%	0	0.0%
MINING	N.A.	117	140	N.A.		23	19.7%
OPEN LAND	927	780	766	-161	-17.4%	-14	-1.8%
PARTICIPATION REC.	NA	29	29			0	0.0%
SPECTATOR REC.	N.A.	99	129	N.A.		30	30.3%
WATER-BASED REC.	NA	2	2			0	0.0%
VERY HIGH DENSITY RESIDENTIAL		279	419			140	50.2%
HIGH DENSITY RES.	1514	670	723	2671	176.4%	53	7.9%
MEDIUM DENSITY RES.		1167	1503			336	28.8%
LOW DENSITY RES.		1170	1540			370	31.6%
MARINA	N.A.	26	30	N.A.		4	15.4%
COMMERCIAL	65	233	300	235	361.5%	67	28.8%
INDUSTRIAL	7	57	98	91	1300.0%	41	71.9%
OPEN/PUBLIC LAND	294	427	606	312	106.1%	179	41.9%
TRANSPORTATION	17	378	398	381	2241.2%	20	5.3%
WASTE DISPOSAL	N.A.	9	15	N.A.		6	66.7%
WATER	1964	211	211	-1753	-89.3%	0	0.0%
WOODY PERENNIAL	0	1	1	1		0	0.0%
CRANBERRY BOG	232	227	223	-9	-3.9%	-4	-1.8%
POWER LINE	N.A.	426	425	N.A.		-1	-0.2%
BEACH	N.A.	72	72	N.A.		0	0.0%
GOLF COURSE	N.A.	98	115	N.A.		17	17.3%
TIDAL SALT MARSH		132	131			-1	-0.8%
IRREGULARLY FLOODED SALT MARSH	384	137	136	-117	-30.5%	-1	-0.7%
TOTAL	27951	26431	26422	-1529	-5.5%	-9	-0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN CARVER - PARTIAL

LAND USE	AREA IN ACRES		C H A N G E	
	1971	1985	NET	%
CROPLAND	100	126	26	26.0%
PASTURE	174	154	-20	-11.5%
FORESTLAND	15912	13914	-1998	-12.6%
INLAND WETLAND	1521	1490	-31	-2.0%
MINING	44	186	142	322.7%
OPEN LAND	436	365	-71	-16.3%
PARTICIPATION REC.	15	15	0	0.0%
SPECTATOR REC.	5	8	3	60.0%
WATER-BASED REC.	1	1	0	0.0%
VERY HIGH DENSITY RESIDENTIAL	0	10	10	
HIGH DENSITY RES.	48	243	195	406.3%
MEDIUM DENSITY RES.	480	1094	614	127.9%
LOW DENSITY RES.	560	921	361	64.5%
MARINA	0	0	0	
COMMERCIAL	54	67	13	24.1%
INDUSTRIAL	16	44	28	175.0%
OPEN/PUBLIC LAND	28	224	196	700.0%
TRANSPORTATION	55	90	35	63.6%
WASTE DISPOSAL	4	26	22	550.0%
WATER	1143	1147	4	0.3%
WOODY PERENNIAL	0	0	0	
CRANBERRY BOG	4610	5087	477	10.3%
POWER LINE	246	243	-3	-1.2%
BEACH	0	0	0	
GOLF COURSE	0	0	0	
TIDAL SALT MARSH	0	0	0	
IRREGULARLY FLOODED SALT MARSH	0	0	0	
TOTAL	25452	25455	3	0.0%

HISTORICAL LAND USE CHANGES IN DARTMOUTH

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	1951 TO 1985 %	1971 TO 1985 NET	1971 TO 1985 %
CROPLAND	4577	2560	2392	-2185	-47.7%	-168	-6.6%
PASTURE	2668	2548	2306	-362	-13.6%	-242	-9.5%
FORESTLAND	25815	24526	23526	-2289	-8.9%	-999	-4.1%
INLAND WETLAND	556	308	310	-246	-44.2%	2	0.8%
MINING	N.A.	395	449	N.A.		54	13.7%
OPEN LAND	1748	1569	1348	-400	-22.9%	-221	-14.1%
PARTICIPATION REC.	NA	76	84			8	10.4%
SPECTATOR REC.	N.A.	93	96	N.A.		3	2.9%
WATER-BASED REC.	NA	0	0			0	
VERY HIGH DENSITY RESIDENTIAL		15	88			73	496.9%
HIGH DENSITY RES.	2653	296	296	2233	84.2%	0	0.0%
MEDIUM DENSITY RES.		1980	2697			717	36.2%
LOW DENSITY RES.		1516	1805			289	19.1%
MARINA	N.A.	12	12	N.A.		0	0.2%
COMMERCIAL	96	285	410	314	327.6%	126	44.1%
INDUSTRIAL	11	67	75	64	581.2%	8	11.3%
OPEN/PUBLIC LAND	245	625	798	553	225.7%	173	27.6%
TRANSPORTATION	0	217	241	241		24	11.2%
WASTE DISPOSAL	N.A.	212	247	N.A.		34	16.2%
WATER	472	251	330	-142	-30.0%	79	31.7%
WOODY PERENNIAL	16	67	91	75	469.0%	24	35.1%
CRANBERRY BOG	8	65	77	69	867.6%	12	18.5%
POWER LINE	N.A.	239	239	N.A.		0	0.0%
BEACH	N.A.	117	117	N.A.		0	0.0%
GOLF COURSE	N.A.	365	364	N.A.		0	0.0%
TIDAL SALT MARSH		436	434			-2	-0.5%
IRREGULARLY FLOODED SALT MARSH	1172	736	734	-4	-0.0	-2	-0.2%
TOTAL	40037	39578	39569	-468	-1.2%	-8	-0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN FAIRHAVEN

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985		1971 TO 1985	
	---	---	---	NET	%	NET	%
CROPLAND	1142	579	557	-585	-51.2%	-22	-3.7%
PASTURE	545	751	645	100	18.4%	-106	-14.1%
FORESTLAND	3060	3001	2829	-231	-7.6%	-173	-5.7%
INLAND WETLAND	160	17	17	-143	-89.3%	0	0.0%
MINING	N.A.	0	0	N.A.		0	
OPEN LAND	222	335	309	87	39.2%	-26	-7.9%
PARTICIPATION REC.	N.A.	17	17			0	0.0%
SPECTATOR REC.	N.A.	51	50	N.A.		-1	-2.6%
WATER-BASED REC.	N.A.	3	3			0	0.0%
VERY HIGH DENSITY RESIDENTIAL		8	24			16	211.8%
HIGH DENSITY RES.	1732	642	635	332	19.2%	0	0.0%
MEDIUM DENSITY RES.		1177	1187			11	0.9%
LOW DENSITY RES.		171	218			46	27.0%
MARINA	N.A.	12	12	N.A.		0	0.0%
COMMERCIAL	38	138	169	131	345.8%	31	22.6%
INDUSTRIAL	34	56	68	34	101.1%	12	21.4%
OPEN/PUBLIC LAND	205	155	183	-22	-10.7%	28	18.2%
TRANSPORTATION	26	66	235	209	805.5%	169	255.8%
WASTE DISPOSAL	N.A.	41	59	N.A.		18	42.7%
WATER	4	18	18	14	348.1%	0	0.0%
WOODY PERENNIAL	0	41	43	43		3	6.5%
CRANBERRY BOG	0	0	0	0		0	
POWER LINE	N.A.	7	7	N.A.		0	0.0%
BEACH	N.A.	37	37	N.A.		0	0.0%
GOLF COURSE	N.A.	0	0	N.A.		0	
TIDAL SALT MARSH		252	252			0	0.0%
IRREGULARLY FLOODED SALT MARSH	743	441	441	-50	-0.1	0	0.0%
TOTAL	7911	8018	8018	107		0	0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN FALL RIVER - PARTIAL

LAND USE	AREA IN ACRES		C H A N G E	
	1971	1985	NET	%
CROPLAND	82	81	-1	-1.2%
PASTURE	0	0	0	
FORESTLAND	9988	9840	-148	-1.5%
INLAND WETLAND	425	425	0	0.0%
MINING	15	12	-3	-20.0%
OPEN LAND	669	137	-532	-79.5%
PARTICIPATION REC.	0	7	7	
SPECTATOR REC.	0	0	0	
WATER-BASED REC.	0	0	0	
VERY HIGH DENSITY RESIDENTIAL	0	0	0	
HIGH DENSITY RES.	0	0	0	
MEDIUM DENSITY RES.	12	12	0	0.0%
LOW DENSITY RES.	49	74	25	51.0%
MARINA	0	0	0	
COMMERCIAL	0	0	0	
INDUSTRIAL	0	0	0	
OPEN/PUBLIC LAND	32	142	110	343.8%
TRANSPORTATION	4	4	0	0.0%
WASTE DISPOSAL	15	1	-14	-93.3%
WATER	1195	1751	556	46.5%
WOODY PERENNIAL	0	0	0	
CRANBERRY BOG	0	0	0	
POWER LINE	186	186	0	0.0%
BEACH	0	0	0	
GOLF COURSE	0	0	0	
TIDAL SALT MARSH	0	0	0	
IRREGULARLY FLOODED SALT MARSH	0	0	0	
TOTAL	12672	12672	0	0.0%

HISTORICAL LAND USE CHANGES IN FALMOUTH

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985		1971 TO 1985	
	NET	%	NET	%			
CROPLAND	1064	196	180	-884	-83.1%	-16	-8.2%
PASTURE	3217	208	188	-3029	-94.2%	-20	-9.6%
FORESTLAND	19391	17681	15642	-3749	-19.3%	-2039	-11.5%
INLAND WETLAND	139	90	80	-59	-42.4%	-10	-11.1%
MINING	N.A.	244	340	N.A.		96	39.3%
OPEN LAND	1200	1150	964	-236	-19.7%	-186	-16.2%
PARTICIPATION REC.	NA	11	17			6	54.5%
SPECTATOR REC.	N.A.	54	59	N.A.		5	9.3%
WATER-BASED REC.	NA	2	2			0	0.0%
VERY HIGH DENSITY RESIDENTIAL		46	142			96	208.7%
HIGH DENSITY RES.	2282	861	1122	5464	239.4%	261	30.3%
MEDIUM DENSITY RES.		3277	4244			967	29.5%
LOW DENSITY RES.		1642	2238			596	36.3%
MARINA	N.A.	49	53	N.A.		4	8.2%
COMMERCIAL	58	354	450	392	675.9%	96	27.1%
INDUSTRIAL	23	55	90	67	291.3%	35	63.6%
OPEN/PUBLIC LAND	80	359	458	378	472.5%	99	27.6%
TRANSPORTATION	21	285	289	268	1276.2%	4	1.4%
WASTE DISPOSAL	N.A.	22	34	N.A.		12	54.5%
WATER	3188	1085	1085	-2103	-66.0%	0	0.0%
WOODY PERENNIAL	0	55	59	59		4	7.3%
CRANBERRY BOG	288	279	275	-13	-4.5%	-4	-1.4%
POWER LINE	N.A.	283	275	N.A.		-8	-2.8%
BEACH	N.A.	164	164	N.A.		0	0.0%
GOLF COURSE	N.A.	420	418	N.A.		-2	-0.5%
TIDAL SALT MARSH		288	286			-2	-0.7%
IRREGULARLY FLOODED SALT MARSH	548	246	242			-4	-1.6%
TOTAL	31499	29406	29396	-2103	-6.7%	-10	-0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN MARION

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	1951 TO 1985 %	1971 TO 1985 NET	1971 TO 1985 %
CROPLAND	202	74	78	-124	-61.5%	3	4.5%
PASTURE	325	75	75	-250	-77.0%	0	0.1%
FORESTLAND	6731	6143	5838	-893	-13.3%	-305	-5.0%
INLAND WETLAND	144	176	176	32	22.3%	0	0.0%
MINING	N.A.	25	21	N.A.		-3	-13.2%
OPEN LAND	197	115	110	-87	-44.0%	-5	-4.4%
PARTICIPATION REC.	N.A.	9	9			0	0.3%
SPECTATOR REC.	N.A.	29	29	N.A.		0	0.0%
WATER-BASED REC.	N.A.	0	0			0	
VERY HIGH DENSITY RESIDENTIAL		0	2			2	
HIGH DENSITY RES.	706	37	37	623	88.3%	0	0.0%
MEDIUM DENSITY RES.		404	433			29	7.2%
LOW DENSITY RES.		666	857			190	28.6%
MARINA	N.A.	8	8	N.A.		0	0.0%
COMMERCIAL	4	77	90	86	2147.9%	13	16.3%
INDUSTRIAL	9	9	24	15	163.2%	15	161.4%
OPEN/PUBLIC LAND	91	84	140	49	53.6%	56	66.1%
TRANSPORTATION	2	164	164	162	8122.1%	0	0.0%
WASTE DISPOSAL	N.A.	62	61	N.A.		-2	-2.8%
WATER	0	3	7	7		4	117.8%
WOODY PERENNIAL	0	7	7	7		0	0.0%
CRANBERRY BOG	220	225	229	9	4.2%	4	1.7%
POWER LINE	N.A.	56	56	N.A.		0	0.0%
BEACH	N.A.	55	55	N.A.		0	0.0%
GOLF COURSE	N.A.	134	134	N.A.		0	0.0%
TIDAL SALT MARSH		176	176			0	0.0%
IRREGULARLY FLOODED SALT MARSH	466	257	257	-33	-0.1	0	0.0%
TOTAL	9097	9075	9074	-23	-0.0	0	0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN MATTAPOISETT

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985		1971 TO 1985	
				NET	%	NET	%
CROPLAND	311	293	277	-34	-10.8%	-16	-5.4%
PASTURE	842	162	139	-703	-83.5%	-23	-14.1%
FORESTLAND	8160	8018	7741	-419	-5.1%	-277	-3.5%
INLAND WETLAND	189	75	70	-119	-62.9%	0	0.0%
MINING	N.A.	74	76	N.A.		2	2.6%
OPEN LAND	296	255	231	-65	-21.8%	-24	-9.2%
PARTICIPATION REC.	N.A.	5	5			0	0.0%
SPECTATOR REC.	N.A.	15	21	N.A.		6	36.4%
WATER-BASED REC.	N.A.	0	0			0	
VERY HIGH DENSITY RESIDENTIAL		0	4			4	
HIGH DENSITY RES.	670	304	304	820	122.3%	0	0.0%
MEDIUM DENSITY RES.		509	503			-6	-1.2%
LOW DENSITY RES.		450	679			229	51.0%
MARINA	N.A.	13	13	N.A.		0	0.0%
COMMERCIAL	0	82	94	94		12	14.3%
INDUSTRIAL	0	5	33	33		28	554.3%
OPEN/PUBLIC LAND	52	61	63	11	20.4%	2	3.4%
TRANSPORTATION	0	143	211	211		69	47.9%
WASTE DISPOSAL	N.A.	20	31	N.A.		11	54.7%
WATER	20	14	15	-5	-24.7%	0	0.0%
WOODY PERENNIAL	0	16	6	6		0	0.0%
CRANBERRY BOG	100	93	93	-7	-7.0%	0	0.0%
POWER LINE	N.A.	64	64	N.A.		0	0.0%
BEACH	N.A.	39	38	N.A.		0	0.0%
GOLF COURSE	N.A.	52	52	N.A.		0	0.0%
TIDAL SALT MARSH		39	39			0	0.0%
IRREGULARLY FLOODED SALT MARSH	496	370	370	-87	-0.2	0	0.0%
TOTAL	11136	11170	11170	34	0.0	0	0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN MIDDLEBOROUGH - PARTIAL

LAND USE	AREA IN ACRES		C H A N G E	
	1971	1985	NET	%
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CROPLAND	545	517	-28	-5.1%
PASTURE	148	186	38	25.7%
FORESTLAND	17686	16714	-972	-5.5%
INLAND WETLAND	947	929	-18	-1.9%
MINING	95	94	-1	-1.1%
OPEN LAND	280	210	-70	-25.0%
PARTICIPATION REC.	0	7	7	
SPECTATOR REC.	4	4	0	0.0%
WATER-BASED REC.	0	0	0	
VERY HIGH DENSITY RESIDENTIAL	0	0	0	
HIGH DENSITY RES.	0	0	0	
MEDIUM DENSITY RES.	330	373	43	13.0%
LOW DENSITY RES.	748	1176	428	57.2%
MARINA	0	0	0	
COMMERCIAL	24	24	0	0.0%
INDUSTRIAL	10	19	9	90.0%
OPEN/PUBLIC LAND	73	319	246	337.0%
TRANSPORTATION	283	283	0	0.0%
WASTE DISPOSAL	13	13	0	0.0%
WATER	805	814	9	1.1%
WOODY PERENNIAL	56	56	0	0.0%
CRANBERRY BOG	1103	1411	308	27.9%
POWER LINE	149	147	-2	-1.3%
BEACH	0	0	0	
GOLF COURSE	0	0	0	
TIDAL SALT MARSH	0	0	0	
IRREGULARLY FLOODED SALT MARSH	0	0	0	
TOTAL	23299	23296	-3	-0.0%

HISTORICAL LAND USE CHANGES IN NEW BEDFORD

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	1951 TO 1985 %	1971 TO 1985 NET	1971 TO 1985 %
CROPLAND	340	8	8	-332	-97.7%	0	0.0%
PASTURE	501	141	140	-361	-72.0%	-1	-0.4%
FORESTLAND	5221	4113	3781	-1440	-27.6%	-332	-8.1%
INLAND WETLAND	283	197	228	-55	-19.6%	31	15.6%
MINING	N.A.	12	8	N.A.		-4	-29.7%
OPEN LAND	159	371	342	183	114.8%	-29	-7.8%
PARTICIPATION REC.	NA	248	252			3	1.4%
SPECTATOR REC.	N.A.	118	118	N.A.		0	0.0%
WATER-BASED REC.	NA	0	0			0	
VERY HIGH DENSITY RESIDENTIAL		146	243			97	66.6%
HIGH DENSITY RES.	3962	2915	2960	185	4.7%	45	1.6%
MEDIUM DENSITY RES.		838	866			28	3.3%
LOW DENSITY RES.		76	78			2	2.2%
MARINA	N.A.	24	24	N.A.		0	0.0%
COMMERCIAL	445	589	600	155	34.9%	11	1.9%
INDUSTRIAL	689	804	945	256	37.2%	142	17.6%
OPEN/PUBLIC LAND	977	914	852	-125	-12.8%	-62	-6.8%
TRANSPORTATION	96	899	943	847	882.1%	44	4.9%
WASTE DISPOSAL	N.A.	149	174	N.A.		25	17.1%
WATER	92	124	122	30	32.3%	-2	-2.0%
WOODY PERENNIAL	0	5	5	5		0	0.0%
CRANBERRY BOG	12	34	37	25	206.6%	3	7.9%
POWER LINE	N.A.	36	36	N.A.		0	0.0%
BEACH	N.A.	12	12	N.A.		0	0.1%
GOLF COURSE	N.A.	171	169	N.A.		-2	-1.4%
TIDAL SALT MARSH		0	0			0	
IRREGULARLY FLOODED SALT MARSH	0	0	0	0		0	
TOTAL	12777	12943	12942	165	1.3%	0	0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN PLYMOUTH - PARTIAL

LAND USE	AREA IN ACRES		C H A N G E	
	1971	1985	NET	%
CROPLAND	153	162	9	5.9%
PASTURE	14	15	1	7.1%
FORESTLAND	22840	21398	-1442	-6.3%
INLAND WETLAND	168	168	0	0.0%
MINING	42	30	-12	-28.6%
OPEN LAND	94	102	8	8.5%
PARTICIPATION REC.	131	199	68	51.9%
SPECTATOR REC.	3	1	-2	-66.7%
WATER-BASED REC.	3	3	0	0.0%
VERY HIGH DENSITY RESIDENTIAL	0	0	0	
HIGH DENSITY RES.	80	107	27	33.8%
MEDIUM DENSITY RES.	851	1591	730	85.8%
LOW DENSITY RES.	262	517	255	97.3%
MARINA	0	0	0	
COMMERCIAL	4	10	6	150.0%
INDUSTRIAL	0	2	2	200.0%
OPEN/PUBLIC LAND	30	333	303	1010.0%
TRANSPORTATION	225	233	8	3.6%
WASTE DISPOSAL	14	15	1	7.1%
WATER	1853	1853	0	0.0%
WOODY PERENNIAL	4	4	0	0.0%
CRANBERRY BOG	1027	1061	34	3.3%
POWER LINE	490	490	0	0.0%
BEACH	0	0	0	
GOLF COURSE	0	0	0	
TIDAL SALT MARSH	0	0	0	
IRREGULARLY FLOODED SALT MARSH	0	0	0	
TOTAL	28288	28284	-4	-0.0%

HISTORICAL LAND USE CHANGES IN ROCHESTER

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	1951 TO 1985 %	1971 TO 1985 NET	1971 TO 1985 %
CROPLAND	722	823	817	95	13.2%	-5	-0.6%
PASTURE	2030	963	972	-1058	-52.1%	9	1.0%
FORESTLAND	16315	16245	15296	-1019	-6.2%	-949	-5.8%
INLAND WETLAND	754	739	732	-22	-2.9%	0	0.0%
MINING	N.A.	54	67	N.A.		13	23.8%
OPEN LAND	377	296	272	-105	-27.8%	-23	-7.9%
PARTICIPATION REC.	N.A.	18	44			26	141.7%
SPECTATOR REC.	N.A.	5	15	N.A.		9	174.4%
WATER-BASED REC.	N.A.	2	2			0	0.0%
VERY HIGH DENSITY RESIDENTIAL		0	0			0	
HIGH DENSITY RES.	124	0	0	878	708.0%	0	
MEDIUM DENSITY RES.		32	94			61	191.3%
LOW DENSITY RES.		553	908			356	64.4%
MARINA	N.A.	0	0	N.A.		0	
COMMERCIAL	0	20	29	29		9	46.2%
INDUSTRIAL	0	5	9	9		4	66.6%
OPEN/PUBLIC LAND	0	124	293	293		169	137.0%
TRANSPORTATION	0	15	17	17		2	12.7%
WASTE DISPOSAL	N.A.	30	49	N.A.		19	62.4%
WATER	1420	1463	1478	58	4.1%	15	1.0%
WOODY PERENNIAL	8	51	51	43	536.9%	0	0.0%
CRANBERRY BOG	1312	1479	1754	442	33.7%	275	18.6%
POWER LINE	N.A.	139	139	N.A.		0	0.1%
BEACH	N.A.	0	0	N.A.		0	
GOLF COURSE	N.A.	64	74	N.A.		10	15.9%
TIDAL SALT MARSH	0	0	0			0	
IRREGULARLY FLOODED SALT MARSH	0	0	0	0		0	
TOTAL	23062	23118	23111	49	0.0	-7	-0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN WAREHAM

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	%	1971 TO 1985 NET	%
CROPLAND	401	20	22	-379	-94.5%	2	10.3%
PASTURE	828	122	116	-712	-86.0%	-6	-4.8%
FORESTLAND	14866	13346	12283	-2583	-17.4%	-1063	-8.0%
INLAND WETLAND	679	829	782	103	15.1%	-47	-5.7%
MINING	N.A.	81	82	N.A.		0	0.5%
OPEN LAND	659	594	610	-49	-7.5%	16	2.6%
PARTICIPATION REC.	N.A.	17	23			6	37.3%
SPECTATOR REC.	N.A.	32	34	N.A.		3	8.1%
WATER-BASED REC.	N.A.	2	3			1	52.0%
VERY HIGH DENSITY RESIDENTIAL		16	33			17	109.1%
HIGH DENSITY RES.	1977	1071	1261	1873	94.8%	190	17.7%
MEDIUM DENSITY RES.		1240	1449			209	16.9%
LOW DENSITY RES.		926	1108			182	19.6%
MARINA	N.A.	20	21	N.A.		1	6.9%
COMMERCIAL	24	336	379	355	1477.2%	42	12.6%
INDUSTRIAL	80	37	75	-5	-6.6%	38	103.8%
OPEN/PUBLIC LAND	134	340	434	300	223.6%	94	27.5%
TRANSPORTATION	14	457	629	615	4391.2%	172	37.5%
WASTE DISPOSAL	N.A.	30	57	N.A.		27	92.3%
WATER	900	948	988	88	9.7%	40	4.2%
WOODY PERENNIAL	0	11	11	11	11	0	0.1%
CRANBERRY BOG	2284	2288	2370	86	3.8%	82	3.6%
POWER LINE	N.A.	177	176	N.A.		-1	-0.5%
BEACH	N.A.	70	70	N.A.		0	0.0%
GOLF COURSE	N.A.	144	144	N.A.		0	0.0%
TIDAL SALT MARSH		124	124			0	0.0%
IRREGULARLY FLOODED SALT MARSH	899	663	659	-116	-12.9%	-4	-0.6%
TOTAL	23745	23939	23939	194	0.8%	0	0.0%

See note on page 4.

HISTORICAL LAND USE CHANGES IN WESTPORT

LAND USE	AREA IN ACRES			C H A N G E			
	1951	1971	1985	1951 TO 1985 NET	1951 TO 1985 %	1971 TO 1985 NET	1971 TO 1985 %
CROPLAND	2550	4688	4739	2189	85.9%	51	1.1%
PASTURE	3756	503	547	-3209	-85.4%	44	8.8%
FORESTLAND	21344	20038	19149	-2195	-10.3%	-889	-4.4%
INLAND WETLAND	236	359	356	120	51.0%	-2	-0.6%
MINING	N.A.	121	133	N.A.		12	9.8%
OPEN LAND	1614	1055	933	-681	-42.2%	-123	-11.6%
PARTICIPATION REC.	NA	25	25			0	0.0%
SPECTATOR REC.	N.A.	14	14	N.A.		0	0.0%
WATER-BASED REC.	NA	0	0			0	
VERY HIGH DENSITY RESIDENTIAL		0	4			4	
HIGH DENSITY RES.	1710	57	59	2410	141.0%	0	0.0%
MEDIUM DENSITY RES.		1554	1787			233	15.0%
LOW DENSITY RES.		1740	2270			531	30.5%
MARINA	N.A.	29	29	N.A.		0	0.0%
COMMERCIAL	54	201	230	176		30	14.7%
INDUSTRIAL	0	13	16	16		3	24.7%
OPEN/PUBLIC LAND	145	147	213	68	46.6%	66	44.8%
TRANSPORTATION	3	253	271	268		18	7.2%
WASTE DISPOSAL	N.A.	42	62	N.A.		20	48.3%
WATER	4396	1269	1269	-3127	-71.1%	0	0.0%
WOODY PERENNIAL	40	31	31	-9		0	0.0%
CRANBERRY BOG	0	0	0	0		0	
POWER LINE	N.A.	51	50	N.A.		-1	-1.8%
BEACH	N.A.	206	206	N.A.		0	0.0%
GOLF COURSE	N.A.	56	56	N.A.		0	0.0%
TIDAL SALT MARSH		529	529			0	0.0%
IRREGULARLY FLOODED SALT MARSH	1188	519	518	-141	-0.1	-1	-0.1%
TOTAL	37036	33497	33496	-3540	-0.1	-1	-0.0%

See note on page 4.

APPENDIX B

TABLE B-1

POPULATION CHANGES

<u>COMMUNITY</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>PRELIM</u>	<u>NET</u>	<u>%</u>	<u>NET</u>	<u>%</u>
Acushnet	4,401	5,755	7,767	8,704	9,412	5,011	113.86%	1,645	21.18%
Bourne	4,720	14,011	12,636	13,874	15,976	11,256	238.47%	3,340	26.43%
Carver	1,530	1,949	2,420	6,988	10,512	8,982	587.06%	8,092	334.38%
Dartmouth	11,115	14,607	18,800	23,966	26,885	15,770	141.88%	8,085	43.01%
Fairhaven	12,764	14,339	16,332	15,759	16,028	3,264	25.57%	(304)	-1.86%
Falmouth	8,662	13,037	15,492	23,640	27,320	18,658	215.40%	11,828	76.35%
Marion	2,250	2,881	3,466	3,842	4,469	2,219	98.62%	1,003	28.94%
Mattapoisett	2,265	3,117	4,500	5,687	5,819	3,554	156.91%	1,319	29.31%
New Bedford	109,189	102,477	101,777	98,478	99,009	(10,180)	-9.32%	(2,768)	-2.72%
Rochester	1,328	1,559	1,770	3,205	3,906	2,578	194.13%	2,136	120.68%
Wareham	7,569	9,461	11,492	18,457	19,006	11,437	151.10%	7,514	65.38%
Westport	1,989	6,641	8,200	13,763	13,757	11,768	591.65%	5,557	67.77%
Sub-totals	167,782	189,834	204,652	236,363	252,099	84,317	50.25%	47,447	23.18%
Fall River	111,963	99,942	96,898	92,574	92,138	(19,825)	-17.71%	(4,760)	-4.91%
Middleborough	10,164	11,065	13,607	16,404	17,640	7,476	73.55%	4,033	29.64%
Plymouth	13,608	14,445	18,606	35,913	45,177	31,569	231.99%	26,571	142.81%
Totals	303,517	315,286	333,763	381,254	407,054	103,537	34.11%	73,291	21.96%
Totals Minus Fall River	191,554	215,344	236,865	288,680	314,916	123,362	64.40%	78,051	32.95%
<u>Acreege:</u>	<u>Total</u>	<u>Basin</u>	<u>% Total</u>						
Carver	27,504	25,452	92.54%						
Fall River	24,460	12,672	51.81%						
Middleborough	46,418	23,296	50.19%						
Plymouth	62,915	28,285	44.96%						

Source: U.S. Census of Population (1950, 1960, 1970, 1980, 1990).

TABLE B-2

EMPLOYMENT CHANGES

AVERAGE ANNUAL EMPLOYMENT

<u>COMMUNITY</u>	<u>1971</u>	<u>1988</u>	<u>NO.</u>	<u>CHANGE</u>	<u>PERCENT</u>
Acushnet	1,536	1,934	398		25.91%
Bourne	1,607	5,087	3,480		216.55%
Carver	84	744	660		785.71%
Dartmouth	3,426	7,766	4,340		126.68%
Fairhaven	1,860	4,559	2,699		145.11%
Falmouth	4,044	11,132	7,088		175.27%
Marion	746	1,555	809		108.45%
Mattapoisett	504	1,611	1,107		219.64%
New Bedford	38,915	47,352	8,437		21.68%
Rochester	81	379	298		367.90%
Wareham	1,489	4,744	3,255		218.60%
Westport	1,088	2,304	1,216		111.76%
Sub-totals	55,380	89,167	33,787		61.01%
Fall River	35,575	40,881	5,306		14.91%
Middleborough	2,707	5,222	2,515		92.91%
Plymouth	3,967	15,218	11,251		283.61%
Totals	97,629	150,488	52,859		54.14%
Total Minus Fall River	62,054	109,607	47,553		76.63%

Source: Mass. Division of Employment Security, Employment and Wages in
Massachusetts.