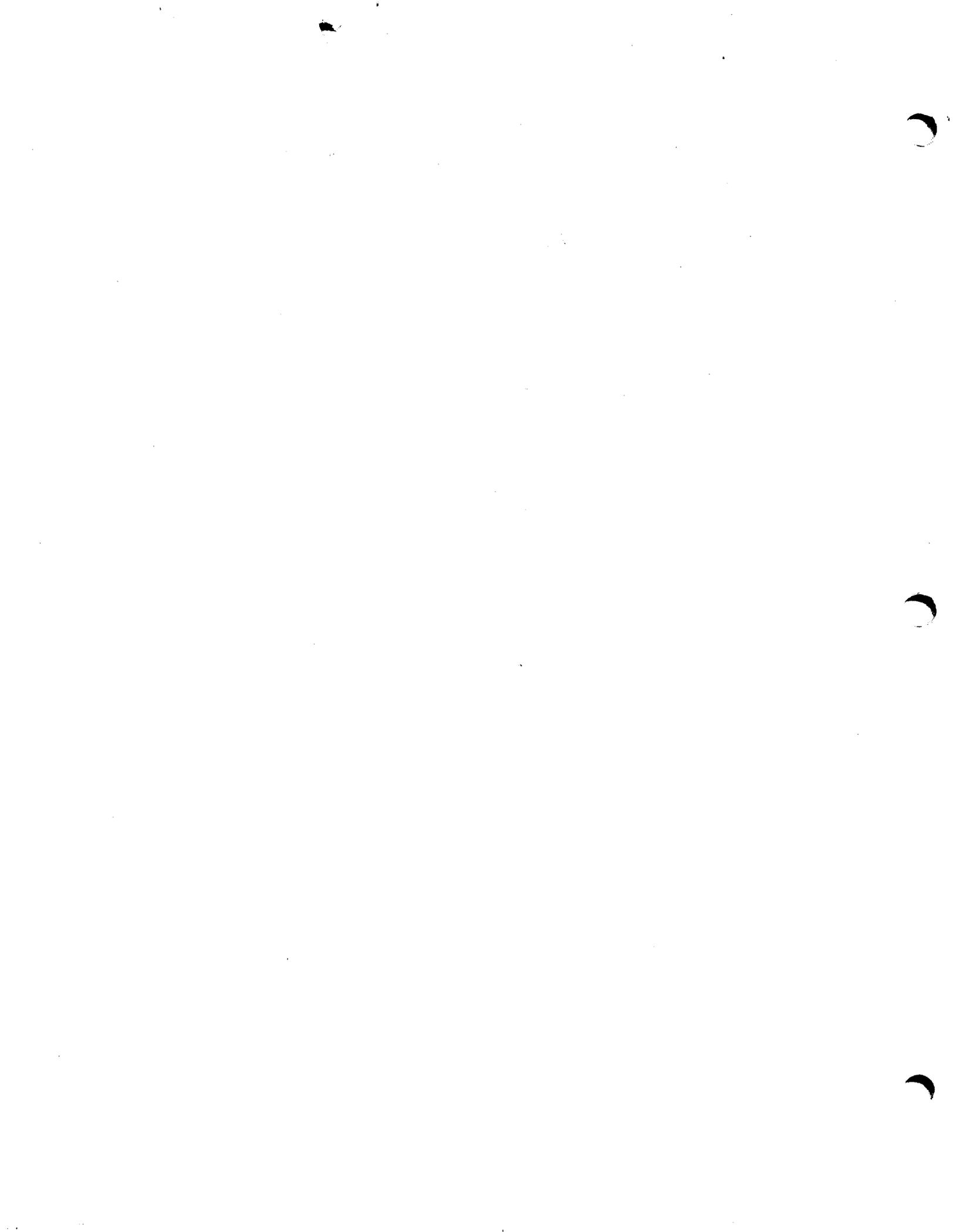


# **TOWN OF SOUTH BERWICK**

## **COMPREHENSIVE PLAN**

**Public Hearing            March 20, 1991**

**Adopted                    March 25, 1991**

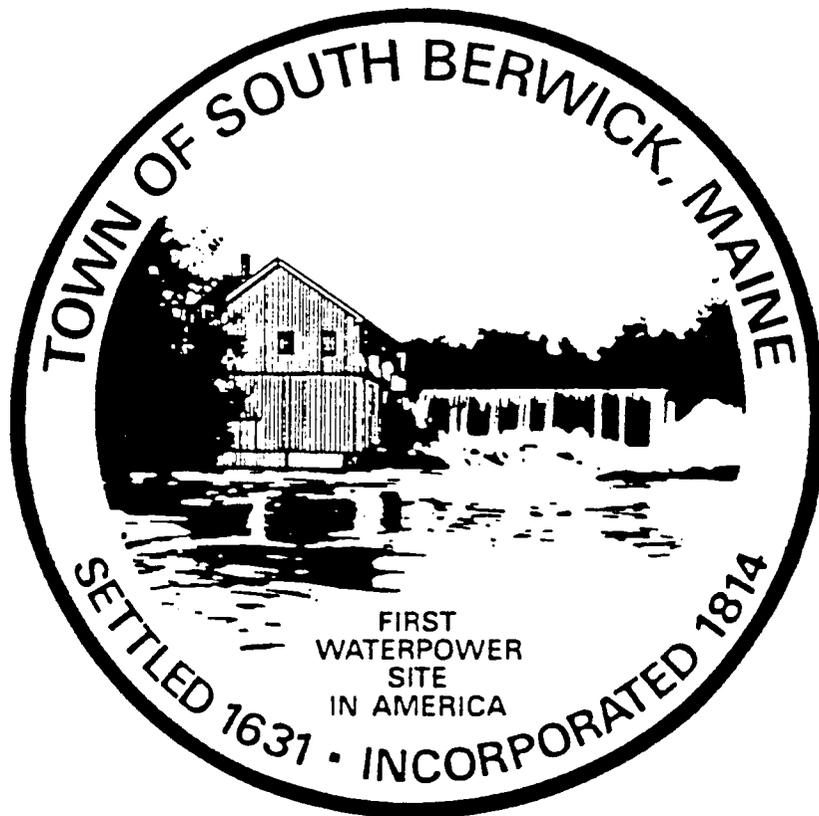


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# TOWN OF SOUTH BERWICK

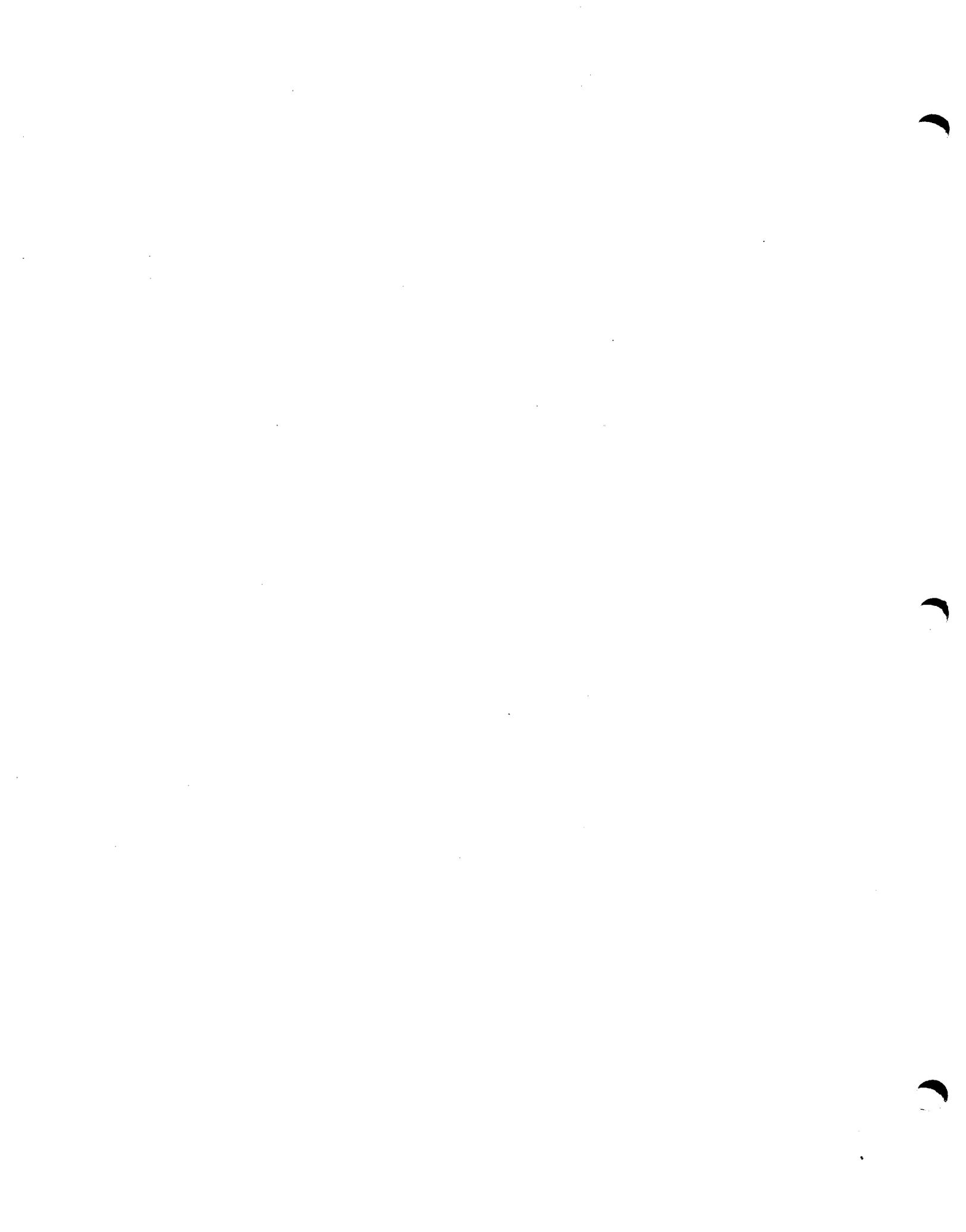
## COMPREHENSIVE PLAN

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Prepared by  
South Berwick Comprehensive Planning Committee  
and Maine Tomorrow, Consultant  
October 1990



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# INTRODUCTION

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## OVERVIEW

This document, the Comprehensive Plan Inventory, is one of two reports that constitute South Berwick's Comprehensive Plan. It builds upon the Town's 1986 Comprehensive Plan by describing and analyzing the cultural, natural, and physical resources of the Town as well as overall patterns of growth and development. Constraints, opportunities and conflicts resulting from these analyses are also presented.

South Berwick's Comprehensive Plan Inventory has been prepared in accordance with the requirements of Maine's Growth Management Act. The Act requires each municipality in the State to develop a local growth management program consistent with the requirements of the Act. High growth communities have been designated by the State as "Tier One" communities and are obliged to complete their Comprehensive Plans according to specified State guidelines by January first of 1991. Failure to do so incurs a number of penalties, including the potential for the loss of certain State funds. South Berwick has been designated as a Tier-One community.

In the development of the inventory, South Berwick placed a premium on citizen involvement by developing a framework to include as many people as possible in the planning effort. Overall coordination was provided by a Steering Committee comprised of two Town Council members, a Planning Board member, and two citizens at large. A Comprehensive Plan Committee was formed and was divided into four subcommittees involving 25 people. The subcommittees were assisted in the preparation of their respective inventory components by the consulting firm Maine Tomorrow of Hallowell. The work of the subcommittees included the preparation of draft policies for consideration of the full Committee.

To aid in the inventory and analysis, the Town mailed a survey to all boxholders (2,400) in Town, the results of which are generally summarized on the following pages and included in more detail in the appendix.

A second report, which builds upon the inventory, includes overall goals and broad policies to guide the Town in its decision making and implementation process. That report also includes an implementation strategy which provides a clear and concise action plan by which the Town will move to implement the policies it has laid out for itself.

## COMMUNITY PROFILE

South Berwick was formed from a southern portion of the Town of Berwick in 1814. However, the settlement of the Town actually began about 1623, with settlers arriving via the Salmon Falls River. At first, the area was called the "Parish of Unity" because of the peaceful disposition and goodwill of the settlers. In 1834, a piece of the Town of York was added to South Berwick to make up the current boundaries of the Town.

South Berwick has been called the first permanent settlement in Maine. It also has laid claim to numerous other firsts: the first water power site in America; the first cow brought to northern New England landed at Cow Cove at what is now Vaughn Woods Memorial Park; Berwick Academy is the oldest educational institution in the State of Maine and today utilizes the oldest frame building still in use as a school in the United States; and the first Baptist Church in Maine was established in 1768.

The area of the first waterpower site - the Great Works - still exists today. For years, this area served as the economic backbone of the community. The mills located there and along the Salmon Falls River helped form a growing Town center. This Town center is currently the focus of all commercial and cultural activities, and is now designated an Historic District. The area also served as home to many ship captains of colonial times; some of these homes are still visible today. Most of the outlying land, as it was in early times, is still rural with limited farming taking place. This has fairly well been the pattern of development and land use since the early days of South Berwick. Notably, however, industrial activity has all but vanished.

Berwick Academy provided an intellectual base for the Town. Sarah Orne Jewett, the noted Maine author, schooled here and lived most her life in South Berwick. Many of her books and short stories, written in and about South Berwick, are Maine classics. Many of the stories deal with growing up in rural Maine.

Located only a few miles from the coast, but without the extreme development pressure of being "on" the coast, South Berwick developed slowly for one hundred years. In fact the population of 3,488 in 1970 was only 54 greater than the population of 3,434 in 1890. Population from 1900-1960 wavered up and down during that time span.

Now there is little doubt, however, which way the demographics are heading. Being "near" the coast is now good enough for many. The major transportation routes, Route 236, Route 4 and the fifteen minute ride to I-95, has brought more people to the area. Portland is now 45 minutes away, Boston 90 minutes, and the growing Portsmouth/Seacoast area 30 minutes. The Town's location, maybe at one time somewhat off the beaten

trail, is now desirable. It has become a bedroom community, far removed from its industrial/mill oriented beginnings.

It is not just location, however, which has resulted in the 80's growth explosion. Many of the new arrivals - as well as the natives - treasure the small town atmosphere which is still present but obviously threatened. The elusive and hard to define quality of life appears to be a major reason why people enjoy living in South Berwick. A small, historic Town center provides basic services, while the rural areas remain forested with small farms and undeveloped natural areas throughout to provide a feeling of earlier times. Thus, even as newcomers arrive with different values and opinions on a range of issues, both they and the long time residents wish to hold on to the small town atmosphere.

Naturally, not everyone agrees on all issues. In fact, it is difficult, when a community has undergone this degree of change, to determine what the true attitudes of the people are. For that reason and to provide a better understanding of the feelings of all residents - both new and old - a survey was developed to provide a starting point for the Comprehensive Plan.

#### SUMMARY OF 1989 CITIZEN SURVEY

The following is a summary of the survey results. More complete information, particularly related to cross tabulation, can be better examined by looking at the complete survey results in the Planning Office at Town Hall. A statistical summary of the overall survey results can be found in Appendix A.

##### 1. Survey Demographics

Out of approximately 2,500 surveys mailed to all boxholders and distributed at Town Hall, 544 responses were received, for a response rate of about 22%. About 60% of the responses were received from the more densely developed portions of Town - Old Mill, Agamenticus Estates and the Village. The rest came from the more rural sections of Town.

A large portion of the respondents (43%) had lived here five years or less and had an income of \$25,000 to \$50,000. Twenty-seven percent had a total household income of less than \$25,000. The three most important reasons listed as the reason for living in South Berwick were: small town atmosphere, quality of life, and access to large towns. Approximately 60% of the respondents were 19-44 years old.

##### 2. Services

Respondents indicated that the three most important services to have available in the future of the Town were a good Fire Department, a good School System and a good Police

Department. Open space and wildlife areas ranked next to these services.

People felt most positive about spending their tax dollars on schools, police and fire and rescue services. There seemed to be support for charging fees in order to reduce the volume of solid waste in Town.

### 3. Growth/Community Character

2, A majority of people felt that the current growth rate (based on the distribution of 60 residential building permits a year) was about right or too rapid. There appeared to be support for increasing the amount of commercial growth.

There were strong feelings about keeping the Town as it is and encouraging growth where it now is - around water and sewer. There seemed to be some negative feelings about multi-family development, while cluster development with open space preservation had a basis of support.

### 4. Planning Concerns

There was a very strong indication that traffic is one of the most serious problems facing the Town in the next 5 years. Threats to water supply and solid waste were listed as the next two concerns. Survey responses also indicate that affordable housing is a potential issue which the Town should look to address.

### 5. Cultural/Recreational Issues

Most respondents were in favor of using Town funds to preserve and protect open space. Target areas for tax dollars were: woodlands, town parks, unique scenery, historic sites and passive outdoor recreation areas. Playing fields and active recreation areas were close behind.

### 6. Survey Responses by Area

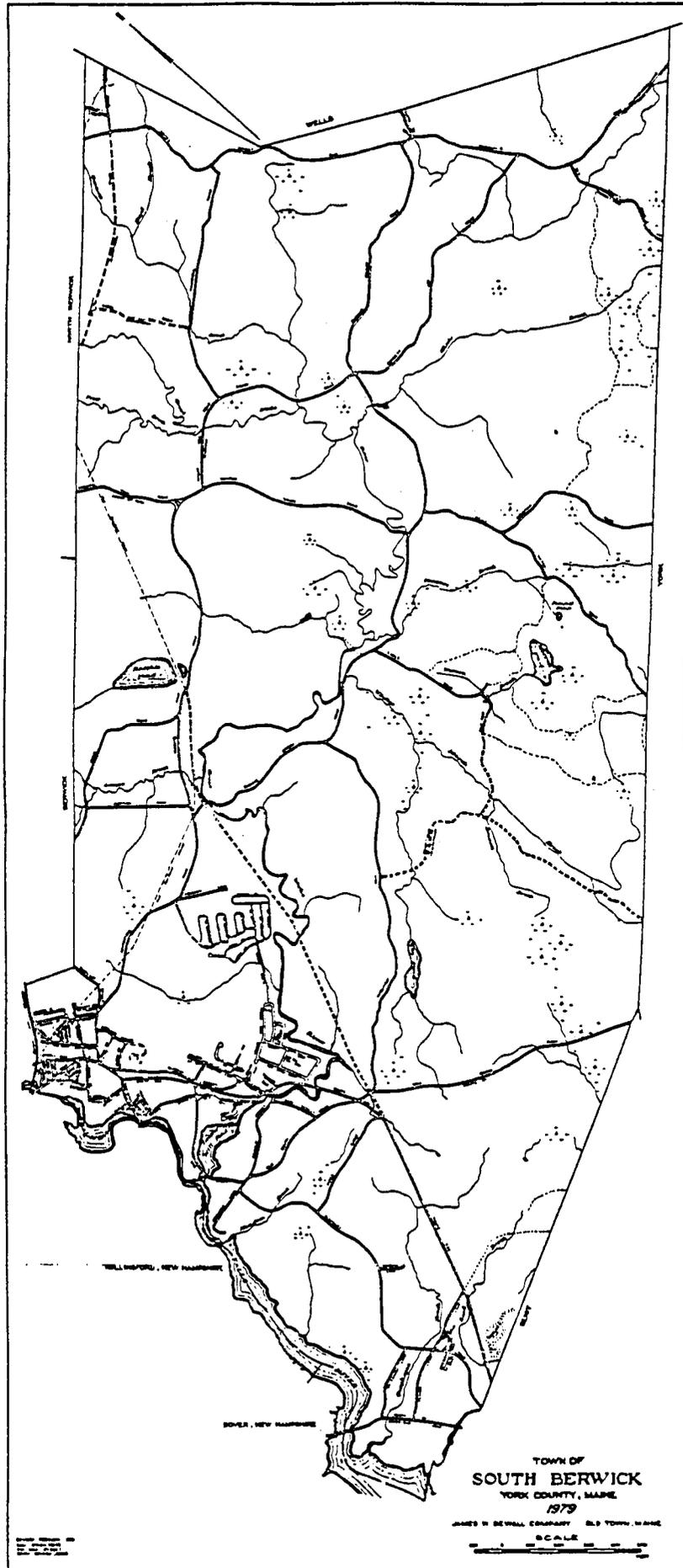
The survey was also cross tabulated according to where people live in Town. Surprisingly, there were no major differences between rural/downtown attitudes. Obviously, the people in the village felt traffic was more of a concern than those in the rural area. People in the rural areas also felt more strongly that growth should continue its present pattern (i.e. leave the rural areas rural). Within certain sub-areas of the rural part of Town, there were some differences which can be better seen in the survey results themselves. However, with respect to the needs for services there was little variation in opinion.

7. Survey Response by Years in Town

As a general statement, it appears that the fewer number of years lived in Town, the more the respondent expects services and is also willing to pay for them. Longer term residents also feel affordable housing is more of an issue than new residents. New residents seem to feel more strongly about the need for recreational services.

MAP OF SOUTH BERWICK

The base map on the following page shows the major roads and water bodies in South Berwick, as well as the route of the proposed bypass.



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## SECTION 1. DEMOGRAPHIC TRENDS

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### HISTORICAL POPULATION TRENDS

The populations of York County and the State have experienced steady growth since the turn of the century. However, the population of South Berwick has declined and risen over the past hundred years. During the 1890s and early 1900s, the population was over 3,000. The population then declined during the first half of the 1900s to a low of 2,546 in 1940. This decline may have been partly due to the migration of rural people to urban areas in search of the better jobs that were part of the industrialization of the country. Since 1940 the population has increased steadily. Table 1-1 displays overall population levels and change for South Berwick, York County and the State.

---

TABLE 1-1  
OVERALL POPULATION LEVELS AND CHANGES

Year	South Berwick	York County	State
1890	3,434	62,829	661,087
1900	3,188	64,335	694,466
1910	2,938	68,526	742,371
1920	2,955	70,696	768,014
1930	2,650	72,934	797,423
1940	2,546	82,550	847,226
1950	2,646	93,541	914,950
1960	3,112	99,402	970,689
1970	3,488	111,576	993,722
1980	4,046	139,739	1,125,043
1987 <sup>1</sup>	4,968	163,122	1,186,988
1988 <sup>2</sup>	6,000	-	-
60-70 change	12.1%	+ 12.2%	+ 2.5%
70-80 change	16.0%	+ 25.2%	+ 13.2%
80-87 change	22.8%	16.7	5.5
40-87 change	95.1%	97.6	40.1

<sup>1</sup> U.S. Census Estimates; this figure appears low, the Southern Maine Regional Planning Commission estimate is 5,320.

<sup>2</sup> Local Estimate based on building permit data.

Source: U.S. Census, 1980

---

## RECENT POPULATION TRENDS AND PROJECTIONS

As displayed in Table 1-1, South Berwick has experienced its greatest rate of population growth since 1980 (22.8 percent between 1980 and 1987). The Town's population growth lagged significantly behind York County's growth during the 1970s, but has exceeded countywide growth during the 1980s. As the more metropolitan areas of Portsmouth, Boston and even Portland expand and as coastal areas become further developed, people who work in these areas will be attracted to South Berwick which is within commuting distance and still has a significant amount of developable land. The overall level of population growth in York County between 1980 and 1987 is shown on Map 1-1.

Net migration has been a major component of the population growth in South Berwick. Table 1-2 shows that net migration accounted for 19 percent of population growth in the 1960s. Migration was more significant during the 1970s when 60 percent of population growth was attributable to net migration. Net migration between 1980 and 1987 accounted for 74 percent of the Town's population growth. Table 1-3 displays annual average natural increase and net migration.

---

TABLE 1-2  
NATURAL INCREASE AND NET MIGRATION, 1950-1987

---

	Natural 10-year Increase*			Net Migration*		
	1960's	1970's	1980's	1960's	1970's	1980's
South Berwick	304	224	238	72	334	684
North Berwick	130	113	189	250	541	777
Berwick	365	252	379	33	761	1,139
Eliot	277	220	275	87	1,231	843
Wells	165	194	233	755	3,569	1,230
York	413	233	271	614	2,552	1,534
Total Sub-region	1,554	1,226	1,585	1,811	8,988	6,207
Total County	8,589	6,616	6,035	4,117	14,727	17,348

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Natural increase is the difference in births over deaths. Net Migration is the change resulting from in-migration and out-migration.

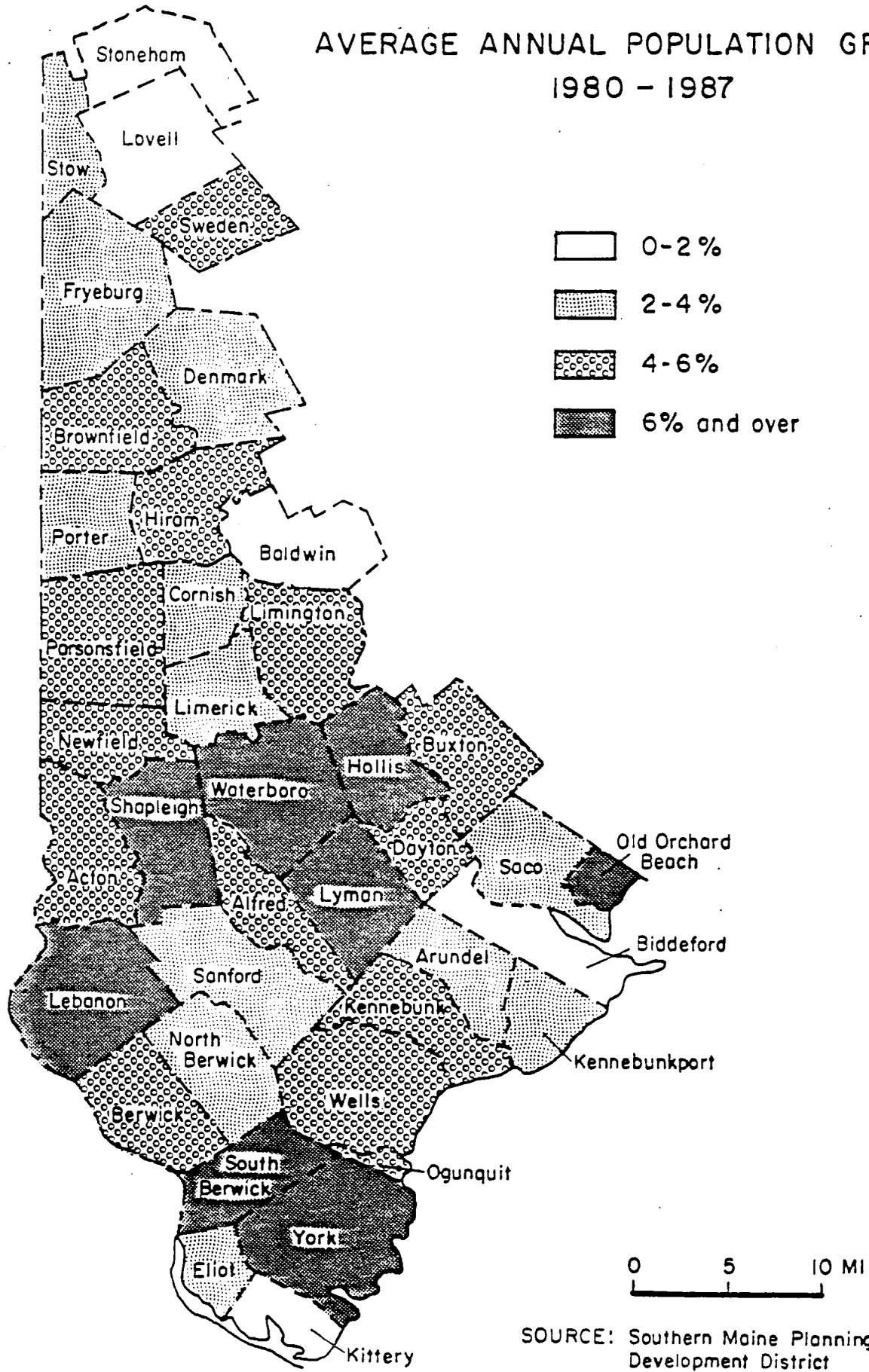
\* For the years 1980-1987

---

Source: U.S. Census, Maine Department of Human Services

---

# AVERAGE ANNUAL POPULATION GROWTH 1980 - 1987



SOURCE: Southern Maine Planning and Development District

TABLE 1-3  
 AVERAGE ANNUAL NATURAL INCREASE  
 AND NET MIGRATION, 1950-1987

	Increase per Year			Net Migration per Year		
	1960's	1970's	1980's*	1960's	1970's	1980's*
South Berwick	30	22	34	7	33	98
North Berwick	13	11	27	25	54	111
Berwick	36	25	54	13	76	163
Eliot	28	22	39	9	123	120
Wells	17	19	33	75	357	176
York	41	22	39	61	252	219
Total Sub-region	60	121	226	180	899	887
Total County	859	661	862	412	1,473	2,478

Natural increase is the difference in births over deaths.  
 Net Migration is the change resulting from inward-migration and outward-migration.

\* For the years 1980-1987

Source: U.S. Census, Maine Department of Human Services

Table 1-4 displays population projections for two scenarios. Both scenarios take into consideration the impacts from the Agamenticus development and the Growth Management Ordinance. Scenario one assumes that growth will continue at the rate projected for 1990-1991 and Scenario two assumes growth will increase at the 1985-1987 rate.

TABLE 1-4  
POPULATION PROJECTION SCENARIOS TO THE YEAR 2000

Year	Growth Scenario #1	Growth Scenario #2
1989	6,150	6,150
1990	6,447	6,447
1995	7,257	8,058
2001	8,229	10,632

Assumptions:

Scenarios #1 & #2

- 1989 projection is 6,150
- projections to the year 1992 reflect development of the remaining Agamenticus lots (50 single family lots), the maximum number of building permits permissible under the Growth Management Ordinance (60 single family units per year) and an average household size of 2.70.

Scenario #1

- 1992 to 2001 projections based on the rate of growth that would occur if the Growth Management Ordinance remained in place and the maximum number of units were built. For the purposes of this Plan this is the assumed growth rate.

Scenario #2

- 1992 to 2001 projections based on the rate of growth experienced between 1985-1987.

---

Source: Maine Tomorrow

AGE DISTRIBUTION

The median age of South Berwick's population in 1980 was 30.6. This compares with a median age of 30.9 for the County and 30.4 for the State.

The nationwide age distribution trend is towards an older population. This is due in large part to the aging of the baby boom generation who are currently between the ages of 25 and 44.

This same trend is also apparent in Maine. 1987 estimates show that over 40% of the population is between the ages of 18 and 44. As this segment of the population ages, the older age categories will increase in size. In 1980, 32 percent of the State's population was over the age of 44; by 1987 this had increased to 32.7 percent of the population.

The same trend is evident in South Berwick. Again, over 40% of the population is between the ages of 18 and 44. The percentage of the population over age 44 in 1980 was 29.3%, and 30.8 percent in 1987.

TABLE 1-5  
AGE DISTRIBUTION COMPARISONS

1980 CENSUS				
	South Berwick		York County	State of Maine
	#	%	%	%
Under 5	277	6.9	7.1	7.1
5-17	935	23.1	21.8	21.6
18-44	1,635	40.4	38.8	39.3
45-64	723	17.9	19.6	19.5
65+	474	11.7	12.7	12.5
TOTAL	4,046	100	100	100

1987 ESTIMATES				
	South Berwick		York County	State of Maine
	#	%	%	%
Under 5	372	7.5	7.2	7.3
5-17	971	19.5	19.5	18.7
18-44	2,098	42.2	41.6	41.3
45-64	867	17.5	18.1	18.3
65+	660	13.3	13.6	13.9
TOTAL	4,968	100	100	100

Source: U.S. Census

## HOUSEHOLDS AND HOUSEHOLD SIZE

There were a total of 1380 households in South Berwick in 1980. The Town's average household size at that time was 2.86 persons per household. This figure is higher than comparable figures for the County (2.75) and the State (2.75).

Average household size is continuing to decrease due to the high rates of divorce and single parenting, and the increasing number of older people living alone. The State's average household size in 1986 was estimated to be 2.59. The average household size in South Berwick may not be decreasing as quickly due to the significant size of the Agamenticus Estates development and its appeal to families with children.

## SEX DISTRIBUTION

Table 1-6 displays the total number of males and females by age category for South Berwick, as reported in the 1980 Census. While this data may be dated, the proportion of males to females may be the same today. Overall, there were slightly more women than men (50.8% and 49.3%, respectively). In the "under 18" and "45 to 64" categories men outnumbered women. However, there were 12.5 percent more women over age 65 than men.

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TABLE 1-6

SEX DISTRIBUTION BY AGE CATEGORY - 1980

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AGE	MALE	%	FEMALE	%	TOTAL
Under 18	618	50.9	596	49.1	1,214
18-44	800	48.9	835	51.1	1,635
45-64	369	51.0	354	49.0	723
65+	207	43.7	267	56.3	474
TOTAL	1,994	49.3	2,052	50.8	4,046

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Source: U.S. Census

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## EDUCATIONAL ATTAINMENT

Educational attainment statistics from the 1980 Census indicate an interesting dichotomy with respect to the educational levels of the Town's population. As shown in Table 1-7, South Berwick had a slightly higher proportion of its population that had completed at least four years of college than at countywide or

statewide levels (14.6%, 14.4% and 14.4%, respectively); but also had a higher proportion of people who had not completed high school, 33.4% as compared to 32.1% countywide and 31.3% statewide.

TABLE 1-7  
 EDUCATIONAL 1980 ATTAINMENT  
 PERSONS 25 YEARS AND OLDER

	South Berwick #	%	York County %	State of Maine %
8 years education or less	348	14.3	18.0	16.6
1-3 years high school	465	19.1	14.1	14.7
Completed high school	924	38.0	38.2	39.3
1-3 years of college	339	14.0	15.3	15.0
4+ years of college	355	14.6	14.4	14.4
TOTAL	2,431	100	100	100

Source: U.S. Census, 1980

INCOME

Overall, South Berwick and York County residents appear to be more affluent than residents statewide. The most current income figures indicate that South Berwick's per capita income in 1985 was \$10,139, higher than both the York County per capita income of \$9,889 and the State figure of \$9,042.

Poverty levels generally appear to be lower in South Berwick and York County than statewide. However, most noteworthy was that 44.1 percent of female-headed households in South Berwick were living below the poverty level in 1980. This figure is much higher than the percentages countywide and statewide (25.2% and 30.8%, respectively).

TABLE 1-8  
INCOME CHARACTERISTICS, 1979-1985

	South Berwick	York County	State of Maine
1979 Per Capita Income	\$ 6,138	\$ 6,212	\$ 5,768
1985 Per Capita Income	\$ 10,139	\$ 9,889	\$ 9,042
Median Household Income	\$ 16,637	\$ 15,377	\$ 13,816
Population Below Poverty Level	10.7 %	9.8 %	13.0 %
Households Below Poverty Level	10.2 %	10.2 %	13.4 %
Percent of Population Over 65 Below Poverty Level	14.5 %	12.6 %	16.4 %
Percent of Households with Female Head	9.3 %	10.9 %	11.9 %
Percent of Female-Headed Households Below Poverty	44.1 %	25.2 %	30.8 %

Source: U.S. Census, 1980; and Maine State Data Center

The distribution of household income levels for 1980 and 1988, and forecasts for 1990, are shown in Table 1-9.

TABLE 1-9

## PERCENT OF POPULATION BY HOUSEHOLD INCOME

Household Income	1980 Census		1988 Update		1993 Forecast	
	S. Berwick	State	S. Berwick	State	S. Berwick	State
\$ 0-9999	29.8	34.7	14.8	19.1	13.6	17.1
\$10,000-24,999	48.3	47.8	30.1	36.2	28.5	34.0
\$25,000-49,999	21.4	15.7	42.9	35.0	42.8	36.0
\$50,000+	.5	1.8	12.2	9.6	15.1	12.9

## Notes:

1. Household income includes the income of families and unrelated individuals.
2. Income figures are expressed in current dollars for 1980 and 1988. 1993 figures are expressed in 1988 dollars.

Source: CACI, Fairfax, Virginia, July 21, 1988.

Table 1-10 contains a summary of income characteristics as reflected in the 1980 Census, as estimated for 1988, and as projected for 1993.

TABLE 1-10

INCOME CHARACTERISTICS AND PROJECTIONS

SOUTH BERWICK				
Income	1980 Census	1988 Update	1993 Forecast	Annual Growth
Per Capita	\$ 5,977	\$ 10,492	\$ 11,731	2.3%
Average Family	\$ 19,146	\$ 31,635	\$ 34,156	1.5%
Median Family	\$ 18,368	\$ 29,270	\$ 31,733	1.3%
Average Household	\$ 17,524	\$ 28,936	\$ 31,159	1.5%
Median Household	\$ 16,781	\$ 27,148	\$ 28,764	1.2%

STATE OF MAINE				
Income	1980 Census	1988 Update	1993 Forecast	Annual Growth
Per Capita	\$ 5,697	\$ 9,766	\$ 11,088	2.6%
Average Family	\$ 18,293	\$ 29,500	\$ 32,250	1.8%
Median Family	\$ 16,178	\$ 26,360	\$ 28,683	1.7%
Average Household	\$ 16,214	\$ 26,168	\$ 28,619	1.8%
Median Household	\$ 13,871	\$ 22,743	\$ 24,534	1.5%

Notes:

1. Household income includes the income of families and unrelated individuals.
2. Income figures are expressed in current dollars for 1980 and 1988. 1993 figures are expressed in 1988 dollars.

Source: CACI, Fairfax, Virginia, July 21, 1988.

LABOR FORCE

Annual average labor force estimates are displayed in Table 1-11. The unemployment rate for South Berwick was .9 percent, significantly less than the rates for the County and the State.

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TABLE 1-11

1988 LABOR FORCE ESTIMATES

South Berwick

<u>Labor Force</u>	<u>Employment</u>	<u>Unemployment</u>
2,953	2,927	26

COMPARISON OF UNEMPLOYMENT RATES

<u>South Berwick</u>	<u>York County</u>	<u>State of Maine</u>
.9 %	2.4 %	3.8 %

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Source: Maine Department of Labor

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EMPLOYMENT

Table 1-12 displays the number of persons by occupational category for South Berwick, the County and the State.

TABLE 1-12  
EMPLOYED PERSONS 16 YEARS AND OVER  
BY OCCUPATION

Occupations	South Berwick #	Berwick %	York County %	State of Maine %
Managerial and Professional Specialty	324	19.7	13.5	20.4
Technical, Sales and Administrative Support	381	23.1	45.2	25.9
Service	206	12.5	1.3	13.1
Farming, Forestry and Fishing	19	1.2	7.1	3.8
Precision Production, Craft and Repairs	332	20.1	13.6	14.6
Operators, Fabricators and Laborers	386	23.4	19.3	22.2
TOTAL	1,648	100	100	100

Source: U.S. Census, 1980

Table 1-13 displays information on the percentage of persons employed in various industrial sectors within South Berwick, York County and the State. Employment was greatest in the service sector for the Town, Country and State, 35.6%, 30.9% and 35.1% respectively. The second largest employment was in the manufacturing sector. The Town's third largest employment level was 18% in retail trade. This was significantly lower than the 25.6% employment at the County level and 21.0% at the State level.

TABLE 1-13  
 PERCENTAGE EMPLOYMENT BY MAJOR INDUSTRIAL SECTOR  
 1987

	South Berwick	York County	State of Maine
Agriculture, Forestry and Fishing	1.8	1.2	1.1
Construction	9.3	7.6	6.6
Manufacturing	27.0	27.0	22.0
Transportation, Communication and Public Utilities	3.3	2.0	4.1
Wholesale Trade	0	1.7	5.0
Retail Trade	18.3	25.6	21.0
Finance, Insurance, Real Estate	4.7	4.0	5.1
Services *	35.6	30.9	35.1
TOTAL	100	100	100

\* Note: Category includes public administration.

Source: Maine Department of Labor

The Town's major employers include Duchess Footwear Corporation with 450 employees, the Town and school system with 112 (19 municipal) employees, and Civil Consultants Engineering with 40 employees.

## PLANNING CONSIDERATIONS

### 1. Overall Growth

The Town's 1989 population level of 6,100 people is expected to increase to 8,200 people by the Year 2001, an increase of 2,100 people, or 33 percent over the 1989 level.

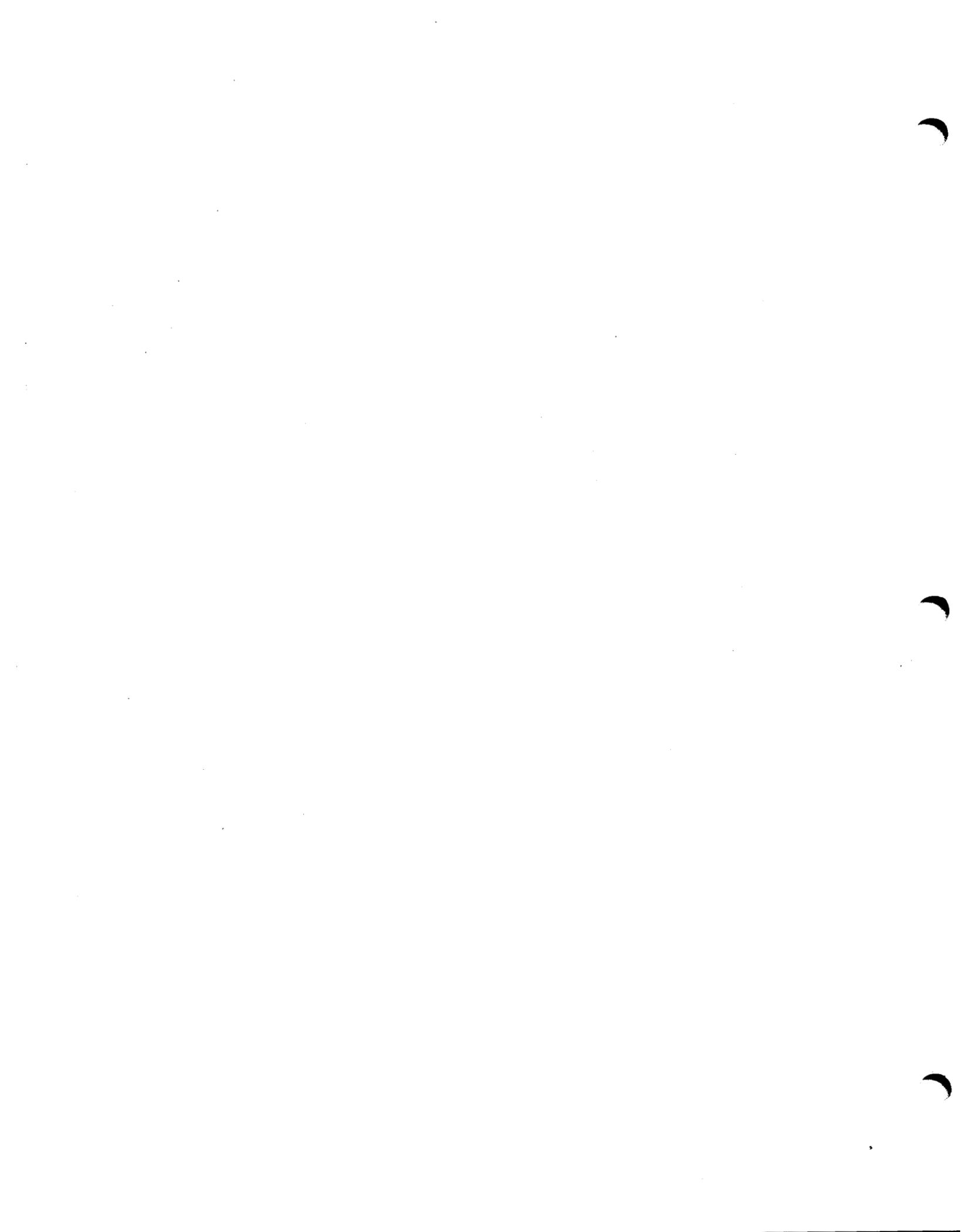
### 2. Growth Impacts

The Town's projected growth will have a significant impact on the Town's facilities and resources. If growth occurs in well-designed developments, the negative impacts will be minimized. However, if growth is scattered and haphazard, the negative impacts will be amplified.

### 3. Regional Impacts

A number of regional developments could affect the Town's projected growth rate. Potential impacts include:

- a. the potential establishment of passenger train service between Boston and possibly Dover or Berwick;
- b. the establishment of a major new industry in South Berwick, such as Watts Fluid Air; and
- c. possible cutbacks at the Portsmouth Naval Shipyard facility, resulting in a reduction of employment for South Berwick residents.
- d. the closure of Pease Air Force Base and the conversion of that facility to other uses.



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## SECTION 2. LAND USE

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One of the most important elements of a comprehensive plan is an analysis of how land is used within a community. An inventory of current land use can be used to identify past trends, areas of seemingly incompatible uses, areas where future growth is likely to occur, and how existing zoning is influencing the development of the Town. All these factors, as well as others, provide valuable information for future planning.

This section provides an analysis of land use in South Berwick and is accompanied by a graphic representation of the Town's overall development pattern. Such information should help in the development of a land use plan for the future that promotes orderly growth, protects rural character, makes efficient use of public facilities and services and prevents urban sprawl. For additional information, see the Land Use Map in file at the Town Office.

### HISTORICAL PERSPECTIVE

South Berwick is a relatively large community, consisting of approximately 21,057 acres. Until fairly recently, however, there was little evidence of the suburban sprawl which seems to dominate when a once rural community begins to urbanize.

This is in large part due to the continual reinforcement of the traditional development patterns in Town; first, as it occurred prior to land use regulation and then, as it was reinforced through the Town's zoning ordinance. Historically, most development was located near the Town center. The zoning ordinance, which concentrated high density growth near the Town center, was developed prior to the housing boom of the 1980's and before sprawl was able to set in. The result has been an expanding Town center with very rural sections of Town in outlying areas.

### RESIDENTIAL DEVELOPMENT

Residential growth in South Berwick has been dramatic during the 1980's. As of 1988, there were a total of 2,246 residential units in South Berwick. There were a total of 1,467 units in 1980. This reveals that there has been a 53 percent increase, or the addition of 779 units, between 1980 and 1988.

The breakdown of these units demonstrates that single-family residential uses are becoming more and more popular in South Berwick. In 1980, 1,043 or 71.1 percent of the residential units in Town were single-family units. Now, the figure for single-family residential units, including mobile homes, is estimated to be 1,710, or 76 percent of the total dwelling units in Town. Mobile homes account for 182 of these units. Table 2-1 displays the number of residential and mobile home building permits issued between 1980 and 1988.

TABLE 2-1  
RESIDENTIAL BUILDING PERMITS  
1980 - 1988

	New Dwelling Units	Mobile Homes
1980	22	6
1981	22	7
1982	43	3
1983	50	5
1984	49	4
1985	105	4
1986	224	7
1987	144	2
1988	<u>79</u>	<u>3</u>
Totals	738	41

Duplex and multi-family units, which in 1980 accounted for 29 percent, or 424 of the residential units in Town, now account for approximately 24 percent, or 536 of all residential units. Most of the increase in multi-family units between 1980 and 1988, an addition of 112 units, was accounted for by duplexes, conversions/additions to existing units and the Farmgate Condominium Complex (34 units).

Almost all multi-family units are clustered around the village area. Outlying areas are almost entirely single family residential. There is no discernible pattern to those areas containing mobile homes.

Subdivision Activity

The 1980's have brought a proliferation of subdivision proposals to South Berwick. The following is a list of subdivision approvals for residential uses. The table includes estimates on the number of units that have been developed within each subdivision.

TABLE 2-2  
SUBDIVISION APPROVALS  
1980 - 1988

Year	Subdivision	Units/ Lots	Developed Lots	Location
1980	Sherburn	3	Unknown	Ogunquit Road
	Old Mill	106	104	Off Route 236
1981				
1982				
1983	Blaisdell	5	4	Emery's Bridge Road
1984	Agamenticus Estates	305	260	Agamenticus Road
	Rocky Hills	6	6	Route 91
	High Street	2	2	High Street
1985	Hertel	3	3	Rodier Road
1986	Farmgate Condos	34	34	Route 236
	Goodwin	4	2	Off Route 236
1987	Cleaves	4	2	Brattle Street
	Piller	3	3	Emery's Bridge Road
	York Woods	4	3	Route 91
	Roe Field	4	2	Route 91
	Friedman	2	Unknown	Oldfields Road
	Smith	3	2	Route 91
1988	Lusty	3	1	Witchtrot Road
	Dubois	2	1	Thunel Road
	Blakeslee	1	Unknown	Rodier Road
	Rocky Gorge Condos	19	0	Route 236
	Delorey	2	Unknown	Earles Road
1989	Stuart Lane	<u>16</u>	<u>0</u>	Emery's Bridge Road
	Total	530	431 (Known)	

TABLE 2-8

SCHOOL LAND

Location	Acreage	Use
Academy Street	13.0	Marshwood Junior High
Main Street	8.4	Central School
Academy Street	56.0	Berwick Academy
Old County Road	<u>36.0</u>	Berwick Academy
Total	113.4	

TABLE 2-9

WATER/SEWER DISTRICT

Location	Acreage	Use
Liberty Street	1.5	Sewer District
Berwick Road	3.1	Water District
Agamenticus Road	4.0	Water District
Willow Drive	<u>9.2</u>	Water District
Total	17.8	

TABLE 2-10

PROPERTY OF UNKNOWN OWNERSHIP

Location	Acreage
Off Route 91	17.0
Off Route 91	10.0
Off Route 91	23.0
Off Route 91	5.0
Bennett Lot Road	8.8
Off Route 91	10.0
Off Route 91	29.0
Off Route 91	5.0
Off Route 91	10.0
Mountain Road	<u>8.5</u>
Total	126.3

It should be noted that the 431 subdivision units developed represent 55 percent of the total number of residential units built between 1980 and 1988. This means 348 units or 45 percent of the Town's residential units were developed outside the subdivision review process.

### Residential Growth Trends

Generally the village area is the most dense as far as concentration of housing, population and services. The arrival of the Old Mill and Agamenticus Estates subdivisions have provided more of a suburban zone on the fringes of the village area. The areas to the north of the village are rural. To the east of Emery's Bridge Road, and north of Witchtrot Road the area can almost be called wild. This is the so-called Mt. Agamenticus area - comprised mainly of dirt roads, logging trails, wetlands, and uninterrupted stretches of forest. In the northern part of Town, development is sparse and is almost found entirely along existing roadways.

The residential building boom of the 1980's is by far the most conspicuous evidence of land use change in South Berwick. Approximately half of the new dwelling units (and resulting change from vacant to developed land) occurred in the Old Mill and Agamenticus Estates subdivisions. The Farmgate Condominiums also contributed to the residential development of the areas adjacent to the village.

However, a very noticeable and recent change has been the growth in the once rural areas of Town. Between 1985 and 1989, the number of building permits issued in each of the Town's Zoning Districts was as follows: R-1, 43 permits; R-2, 311 permits; R-3, 128 permits; and R-4, 62 permits. Much of the growth in the R-3 and R-4 districts has occurred primarily along Emery's Bridge Road, Witchtrot Road and Route 91. Additional units are slated for the R-3 and R-4 districts (see Table 2-3 below). The result has been sprawl with homes occupying two to three acre lots every 300 feet or so along the roadway. The appearance is more suburban than the rural atmosphere people associate with these areas. Most land development is taking place along existing roadways as this land is the most convenient to develop. This creates the appearance of there being more development than there actually is. It also serves to landlock land, valuable natural resource features, open space and potential transportation systems.

Similarly, there has been a dramatic increase in residential development along unpaved roads in the Town. This is particularly evident along Belle Marsh, Mountain and Ogunquit Roads.

It is clear that although the existing "blueprint" for the Town states quite clearly that most growth should occur in the village and surrounding area, this picture is rapidly changing.

It is obvious the Town's growth plan is not working to entirely limit growth to the village area.

Table 2-3 summarizes information on pending subdivisions as of mid-1990.

TABLE 2-3

PENDING SUBDIVISIONS (TOTAL: 237 LOTS)

Subdivision	Location	Units	District
Village at Great Works	Alder	47	R-2
Brookwood Estates	Boyd Corner	29	R-4
Great Hill Farms	Knights Pond Road	62	R-4
Blueberry Ridge	Route 236	60	R-3
Folsom Farms	Wichtrot Road	30	R-3
Liberty Street Subdivision	Liberty Street	9	R-1

COMMERCIAL LAND USE

According to the assessor's records, there were 73 parcels of land devoted to commercial use by the end of 1988. This represents about 1.5 percent of the total number of parcels of land in Town. Nearly all of these commercial uses are located in the village area.

A breakdown of these uses is shown in Table 2-4.

TABLE 2-4

COMMERCIAL PROPERTIES IN SOUTH BERWICK - 1988

Use	Number of Parcels
Stores	24
Office Buildings	5
Professional Buildings	3
Fast Food	3
Service Shops	7
Service Stations	3
Funeral Home	1
Restaurant	1
Bank	1
Antiques	2
Other Commercial	<u>23</u>
Total	73

### Commercial Development Trends

Between 1980 and 1988, 23 commercial building permits were issued. These are listed in Table 2-5.

Most of this commercial growth has occurred in the downtown and surrounding village area.

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TABLE 2-5

COMMERCIAL PERMITS 1980 - 1988

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Year	Number of Permits
1980	2
1981	2
1982	1
1983	1
1984	1
1985	2
1986	2
1987	8
1988	<u>4</u>
Total	23

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### INDUSTRIAL DEVELOPMENT

South Berwick has very little industrial development. The Duchess Shoe Factory and Spray Maine are located in the village area and are the Town's only heavy industries. There are five small light industrial operations, also located within the village area.

A 90 acre parcel, zoned as an industrial park, and located just outside of Town on Route 4 North, has not yet been developed.

### PUBLICLY OWNED LAND/TAX EXEMPT LAND

Tables 2-6 through 2-11 display all publicly held land, quasi-public land, property of unknown ownership, and some specific tax exempt parcels. Knowledge of these parcels is helpful for recreation and public facilities planning. Property of unknown ownership represents potential property for the Town to acquire due to unpaid taxes.

TABLE 2-6

TOWN-OWNED LAND

Location	Acreage	Use
Route 101	2.4	Town Landing
Main Street	1.9	Municipal Building
Norton Street	.4	Fire Department
Front Street	3.1	Town Garage
Main Street	.23	Park
Liberty Street	4.0	So. Berwick Hydro
Agamenticus Street	16.0	Ski area
Agamenticus Street	2.8	Transfer Station
Agamenticus Street	.8	Vacant
Knights Pond Road	102.0	Town forest
Off Bennett Road	22.0	Vacant
Bennett Road	3.9	Vacant
Agamenticus Road	<u>35.0</u>	Ballfield
Total	194.53	

TABLE 2-7

STATE-OWNED LAND

Location	Acreage	Use
Railroad Turntable	.25	Vacant
Route 236	7.36	State Highway Dept.
Oldfields Road	135.00	Vaughn Woods
Emery's Bridge Road	<u>.50</u>	Vacant
Total	142.86	

TABLE 2-11

MISCELLANEOUS TAX EXEMPT PROPERTY (EXCLUDING CHURCHES)

Location	Acreage	Use
Main Street/ Salmon Falls	2.5	Town of Rollingsford Vacant
Portland Street	1.2	Jewett House
Portland Street	.46	Memorial Library
Liberty Street	.09	Counting House
Vaughns Lane	35.0	Hamilton House
Off Mountain Road		Town of York Vacant

COMMERCIAL FOREST LAND

The extent of commercial forest land within South Berwick is difficult to estimate due to the lack of data. Recently enacted State forest management legislation requires all logging operations to report to the State, which will provide valuable information for the Town in future years.

The most common commercially valuable forest species found in South Berwick are white pine, hemlock, red oak and red maple. Several area foresters have suggested that many of South Berwick's soils are suitable for growing trees and that there is a significant forest resource. However, much of this resource is not being managed.

Non-industrial (not owned by paper company, sawmill, etc.) small woodlot landowners are the primary owners of forestland in South Berwick. Non-industrial forest landowners can have a range of objectives for their forestland, such as wildlife conservation, fuel wood supply, general amenity, recreation and timber management. Timber management for commercial production may not be the highest priority. Commercial products of the Town's forest resources include firewood, sawlogs, pulpwood and biomass chips.

A number of South Berwick's landowners have placed their forestlands in Tree Growth. The Tree Growth Tax Law allows for the assessment of forestland based on current use rather than market value as long as the land is managed for timber production and remains as forest. In 1989, there were 2,011 acres, or 55 parcels, listed in Tree Growth. Land classified under the Tree Growth Tax Law constitutes 9.6 percent of the land area of the Town. The average parcel size was 36.6 acres. Within the past

several years 462 acres, consisting of 13 parcels, have been removed from Tree Growth. In order to remove a parcel from Tree Growth, the land owner must pay a penalty.

The Town of South Berwick requires a permit for timber harvesting operations. In 1989, the Town issued 6 permits for harvesting on approximately 200 acres. During the first half of 1990, 3 permits were issued for harvesting on about 70 acres. All of the permits issued in 1989 and 1990 were in the R-3 and R-4 districts.

#### COMMERCIAL AGRICULTURE

It appears that the nature of agriculture in York County and South Berwick has changed significantly over the past several decades. The lack of data for the Town makes it very difficult to quantitatively assess how agriculture has changed. However, it is apparent that large full-time commercial farming operations, such as dairy farming, have been replaced by smaller part-time farm operations. Commercial growers that market vegetables and fruits and/or operate pick-your-own operations and roadside markets are becoming increasingly popular. Other part-time farm operations raise hay and/or have a few poultry and/or livestock.

As of June 1990, there were 7 farms in South Berwick with a combined acreage of 397 acres, or 1.9 percent of the total land area of the Town. The largest farm, consisting of 159 acres, is devoted primarily to corn and strawberries. All of the farms are located in either the R-3 or the R-4 district.

Table 2-12 is a listing of important farmland soils in York County. Nearly all of these soils are found in South Berwick. Deep soils that have gentle slopes, good natural drainage, few stones and good soil texture and organic content qualify as good farmland soils. Important farmland soils appear to be scattered throughout South Berwick. Their exact location can be identified on the maps contained in the U.S. Soil Conservation Services Soil Survey of York County.

TABLE 2-12

YORK COUNTY IMPORTANT FARMLANDS

PRIME FARMLAND			ADDITIONAL FARMLAND OF STATEWIDE SIGNIFICANCE		
Soil Symbol	Name	Slope	Soil Symbol	Name	Slope
AlB	Allagash	3-8%	AlC	Allagash	8-15%
BcB	Becket	3-8%	BcC	Becket	8-15%
BuB	Buxton	3-8%	BeB	Becket	3-8%
EmB	Elmwood	0-8%	EmC	Elmwood	8-15%
MaB	Madawaska	3-8%	SeB	Scio	3-8%
MrB	Marlow	3-8%	SkC	Skerry	8-15%
* On	Ondawa		SrB	Skerry	0-8%
PeB	Peru	0-8%	BuC	Buxton	8-15%
* Po	Podunk & Winooski				
SkB	Skerry	0-8%			

\* Not Prime if floods more than 1 in 2 years.

VACANT LAND

An examination of vacant land and its location can be used to determine the effectiveness of zoning and, in combination with information on land capabilities, the amount of land available for future development.

Table 2-13 compares the amount of vacant land to developed land within each residential zoning district. As would be expected most of the land, 76 percent, within the Village Residential District is developed. The percentages of vacant land within the other districts are in the mid sixties.

TABLE 2-13

VACANT AND DEVELOPED LAND BY RESIDENTIAL ZONING DISTRICT\*

Zoning District	Vacant Acres	% of Total	Developed Acres	% of Total
Village Residential	145	24	459	76
Developing Residential	808	66	409	34
Transitional Residential	4,961	64	2,836	36
Rural Residential	3,649	67	1,768	33
Totals	9,563	100	5,472	100

\* NOTE: "Developed acres" includes all tracts, regardless of size, that have a structure on them. The category therefore includes tracts of 20 or 30 acres containing a single dwelling.

A further examination of developed acreage by zoning district, which is displayed in Table 2-14, indicates that zoning appears to have affected the average parcel size of developed acreage.

TABLE 2-14

DEVELOPED ACREAGE

Zoning District	Developed Acreage	No. of Parcels	Average Parcel Size
Village Residential	459	495	.93
Developing Residential	409	361	1.13
Transitional Residential	2,836	521	5.44
Rural Residential	1,768	144	12.2

There are approximately six acres of vacant land in the Town's Business District. Most new businesses occur as conversions.

The Town also has ninety acres of industrial land that is vacant. This area is intended to be an industrial park and is the only land in Town zoned as industrial. Map 2-1 shows the overall zoning designations as of 1989.

#### IMPACT OF ZONING ON LAND USE

The Town's current Zoning Ordinance obviously impacts the way the Town develops. The village and the surrounding area include small lot sizes and reduced frontage requirements (10,000 square feet and 100 feet of frontage). In the rural areas of Town, lot sizes are 2 and 3 acres with 200-300 feet of frontage required. The intent of these requirements was to keep the rural portions of Town rural. To a degree they have, while also using up all available frontage along roadways and also using up more land to develop properties. There is not necessarily less development; it is merely spread over a greater area.

The zoning framework is also impacted by the existence of both a separate Water and Sewer District. The plans of these two organizations for extending their services and boundaries directly influence the way the Town wishes to develop. The three entities do not always have the same plan in mind.

The Zoning Map (Map 2-1 on page 2-15) shows the location of the Town's residential zoning districts (R-1 through R-4) and the general location of the Town's B-1 and B-2 districts. The shoreland districts are not shown. Table 2-15, beginning on page 2-16, contains a summary of permitted, conditional, and prohibited uses by district. Table 2-16, beginning on page 2-19, contains a summary of dimensional requirements by zoning district. The footnotes following the table are included as they appear in the zoning ordinance.

#### PLANNING CONSIDERATIONS

Land use planning can be used to improve the efficiency of land use, to minimize conflicts between incompatible uses, to reduce or eliminate environmental hazards and to minimize degradation of the environment. This analysis has inventoried the location and extent of the various land uses and has identified future trends in land use change. This information, along with information on the location and capacity of water, sewer, and transportation services and facilities as well as soil suitability and other environmental concerns, provides the basis for land use planning.

##### 1. Land Use Development Patterns

More efficient use of land and municipal services and facilities usually consists of: encouraging infilling and full use of urban areas; concentration of development near water, sewer and highway systems; and the conservation of open space. It has been, and continues to be, the Town's

policy to encourage growth in the R-1 and R-2 zoning districts in and adjacent to the village (where higher densities are allowed), and to limit development in the more rural R-3 and R-4 districts. The Town is committed to avoiding the problems of development sprawl.

2. Land Use Compatibility

Another goal of land use planning is to assure compatibility of adjacent land uses and reduce or minimize conflicts between incompatible adjacent uses.

3. Housing Impact

Based on the Town's ten-year population projection (8,000) and Southern Maine Regional Planning Commission's 1988 estimated household size (2.64), there will be a need for 720 additional housing units between 1989 and 2001. If all of the pending subdivision applications are approved, there will be a combined total of 337 lots (those pending, plus vacant lots in previously approved subdivisions) to accommodate 47 percent of this growth. There will be more than sufficient vacant land in the proposed R-1 and R-2 districts to accommodate the remaining 383 dwellings.

TABLE 2-15

## LAND USES BY DISTRICT

LAND USES	DISTRICT									
	RP	S	R1	R2	R3	R4	B1	B2	I1	I2
Seasonal sale of produce and plants grown locally	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Public or private outdoor recreation facilities (2)	N	CU	Y	Y	Y	Y	CU	CU	CU	CU
Campgrounds*	N	N	N	N	CU	CU	N	N	N	N
Single-family dwelling	N	CU	Y	Y	Y	Y	Y	Y	N	N
Manufactured homes	N	CU	Y	Y	Y	Y	Y	Y	N	N
Two-family dwellings*	N	CU	Y	Y	Y	Y	Y	Y	Y	N
Multi-family dwellings*	N	CU	Y	Y	Y	Y	CU	CU	N	N
Cluster Housing and Planned Unit Developments	N	N	CU	CU	CU	CU	N	N	N	N
Mobile home park	N	N	N	CU	CU	CU	N	N	N	N
Home occupation	N	CU	N	N						
Industrial facilities, wholesale distributions and warehousing*	N	N	N	N	N	N	N	N	CU	CU
Automobile graveyards/junkyards*	N	N	N	N	N	CU	N	N	N	N
Agriculture - non-livestock, nurseries, greenhouses*	N	CU	CU	CU	Y	Y	N	N	CU	CU
Agriculture - livestock*	N	CU	CU	CU	Y	Y	N	N	N	N
Kennels*	N	N	N	N	CU	CU	N	N	N	N
Timber harvesting	CU	CU	N	CU	CU	CU	N	N	CU	CU
Retail store, personal service establishments, banks	N	N	N	N	N	N	Y	CU	N	N
Hotel, restaurant*	N	N	CU							
Professional/administrative offices*	N	N	CU	CU	CU	CU	Y	Y	CU	CU
Nursing homes, hospitals health care facilities*	N	N	CU							
Take-out restaurants	N	N	N	N	N	N	CU	CU	N	N
Vehicle sales and service	N	N	N	N	N	N	CU	CU	N	N

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## SECTION 3. HOUSING

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The housing stock of a community is one of its most visible and important assets. Housing not only reflects the well being of individual citizens, but it also portrays the condition and health of the community. An adequate supply of housing is needed to satisfy individual needs for shelter, as well as finance a substantial portion of the community's municipal service.

In a growing community, the increasing demand for shelter results in growth pressure which can have an adverse impact on the municipality in terms of environmental problems, the provision of municipal services, the psychological well being of existing residents, and the cost of housing.

South Berwick has felt the tremendous growth pressures that have been at work throughout Southern Maine. There was a surge in new housing starts in the mid-1980's which might have continued had the Town not enacted a growth limitation ordinance.

The following paragraphs include an inventory of South Berwick's housing stock, as well as an analysis of the housing growth that has taken place within the 5 other communities in the immediate 6-town region (North Berwick, Berwick, Eliot, Wells and York), as well as York County and the State where appropriate.

### CHANGES IN TOTAL HOUSING STOCK

Table 3-1 includes a summary of the changes in total year-round housing stock since 1970. Between 1970 and 1980, South Berwick's housing stock grew 33.2% from a total of 1,101 units to 1,467 units. While this growth rate was substantial, it was the smallest percentage increase of any community in the 6-town region and was slightly more than half the rate of the 6-town region (61.0%), as a whole. During the same decade, south Berwick's rate was also lower than the County rate (37.4%), but substantially higher than the State rate (7.6%) Duh

Between 1980 and 1988, the situation was reversed, and South Berwick experienced the highest growth rate in the 6-town region (59.5%). The Town's rate was almost 2 1/2 times the County rate (22.0%), and over 5 times the State rate (11.7%). During this same 8-year period, South Berwick also had the second highest numerical rate increase (873 units), being exceeded only by York (1,986 units). The data on 1980-88 housing starts is based on municipal tax valuation returns, which may not be accurate in all instances. Building permit data indicates that only 692 units have been built.

TABLE 3-1

## CHANGES IN TOTAL YEAR-ROUND HOUSING STOCK

	Total Units		% Increase		Units 1988	% Increase	
	1970	1980	1970-80			1980-88	
South Berwick	1,101	1,467	# 366	% 33.2	2,340	# 873	% 59.5
North Berwick	761	1,024	263	34.6	1,301	277	27.1
Berwick	993	1,502	509	51.2	2,213	711	47.3
Eliot	1,143	1,775	632	55.3	2,123	348	19.6
Wells	1,838	3,690	1,852	100.8	4,720	1,030	27.9
York	2,259	3,573	1,314	58.2	5,559	1,986	55.6
Total, (6-Town Region)	8,095	13,031	4,936	61.0	18,193	5,162	39.6
Total, York County	38,873	53,421	14,548	37.4	65,160	11,739	22.0
STATE TOTAL	397,169	427,377	30,209	7.6	477,538	50,161	11.7

Source: U.S. Census, 1970 and 1980, Municipal Tax Valuation Returns

HOUSING UNIT BY TYPE OF STRUCTURE

Table 3-2 contains a breakdown of housing by type of unit as reflected in the 1980 Census. Table 3-2 shows that South Berwick had the smallest percentage of single family dwellings (71.1%) of any community in the 6-town region. The percentage includes both single family houses (61.5%) and mobile homes (9.6%). The Town's percentage was lower than that for the 6-town region (83.1%) or the State (74.2%). By contrast, the Town had the highest percentage of duplexes (13.5%) of any jurisdiction, as well as the highest percentage of multi-family dwellings (15.4%) of any jurisdiction except the State (17.0%). Since most of the construction that has occurred since 1980 has been in the form of single family dwellings, South Berwick's housing composition is now considerably different. Between 1980 and 1988, housing growth, as measured by building permits, included 679 single-

family dwellings (79% of the total growth), 144 multi-family units (16%) and 36 mobile homes (4%). Thus, in 1988, the Town's total housing mix includes 1,581 single-family homes (68% of the total), 177 mobile homes (7.6%), a combined single-family/mobile home count of 1,758 (75.6%), and 568 duplex/multi-family units (24.4%) for a total of 2,326 units. As of April of 1988, single family dwellings probably account for about 81% of all units, which is still one of the smaller rates in the 6-town sub-region, but closer to the sub-region's 1980 average of 83.1%.

TABLE 3-2

HOUSING UNITS BY TYPE OF STRUCTURE - 1980

	Single Family Houses		Mobile Homes		Total Single Family		Two-Family		Multi-Family		Total Housing Units
	#	%	#	%	#	%	#	%	#	%	
South Berwick	902	61.5	141	9.6	1,043	71.1	198	13.5	226	15.4	1,467
North Berwick	845	82.6	56	5.5	901	88.1	90	8.8	32	3.1	1,023
Berwick	1,016	67.2	188	12.4	1,204	79.7	165	10.9	142	9.4	1,511
Eliot	1,463	81.3	158	8.8	1,621	90.1	89	4.95	89	4.95	1,799
Wells	2,861	73.9	349	9.0	3,210	82.9	240	6.2	420	10.9	3,870
York	2,965	82.2	95	2.6	3,060	84.9	183	5.1	362	10.0	3,605
Total 6-Town Region	10,052	75.7	987	7.4	11,039	83.1	965	7.3	1,271	9.6	13,275
TOTAL STATE	282,539	66.0	35,105	8.2	317,644	74.2	37,852	8.8	72,724	17.0	428,220

Source: U.S. Census, 1980

SELECTED CHARACTERISTICS OF HOUSING UNITS

Table 3-3 includes 1980 Census information on selected housing characteristics, including total dwelling units (year-round and seasonal), vacant year-round dwellings, owner-occupied units, and household size.

South Berwick had one of the lowest percentages of seasonal dwellings (1.3%), in sharp contrast to Wells (41.1%), York (38.7%), and the County as a whole (20.0%). South Berwick also had the lowest percentage of owner-occupied units (71.4%) of any jurisdiction. The household size in South Berwick (2.86%) was less than that of North Berwick (2.99%), Berwick (2.93%), or Eliot (2.93%), but more than Wells (2.65%) or York (2.65%).

South Berwick had a smaller percentage of its population on public sewer (52.0%) than Eliot (52.1%), Wells (60.2%), York (69.8%) or the County as a whole (66.3%). However, the Town had a greater percentage of its population (42.8%) on public water than all jurisdictions except Berwick (43.9%) or the County (45.4%).

TABLE 3-3  
SELECTED CHARACTERISTICS OF HOUSING UNITS - 1980

	Total Dwelling Units	Year-round Dwelling Units		Seasonal Dwelling Units		Vacant Year-round Dwellings		Owner Occupied Units		Household Size	% on Public Water		% on Public Sewer	
		#	%	#	%	#	%	#	%		%	%		
South Berwick	1,487	1,467	98.7	20	1.3	87	5.93	985	71.4	2.86	52.0	42.8		
North Berwick	1,145	1,024	89.4	121	10.6	76	7.42	810	85.4	2.99	47.2	7.9		
Berwick	1,521	1,502	98.8	19	1.2	96	6.39	1,071	76.2	2.93	48.4	43.9		
Eliot	1,827	1,775	97.2	52	2.8	85	4.79	1,413	83.6	2.93	52.1	9.9		
Wells	4,582	2,699	58.9	1,883	41.1	125	4.63	1,972	76.6	2.61	60.2	40.1		
York	5,824	3,573	61.3	2,251	38.7	421	11.78	2,449	77.7	2.65	69.8	28.7		
York County	66,900	53,550	80.0	13,350	20.0	3,773	20.6	35,847	72.2	2.81	66.3	45.4		

HOUSING CONDITIONS AND PUBLIC SERVICES

Table 3-4 contains a variety of housing conditions data as reported in the 1980 Census, for South Berwick, the other communities in the 6-town sub-region, and York County. According to this information, South Berwick contains one of the lowest percentages of residential structures with complete kitchens (97.2%), although the differences between all jurisdictions is small. Compared to the County, the Town had a lower percentage with central heating (77.3% vs. 81.7%), and a lower percentage with 1 or more complete bathrooms (93.3% vs. 95.5%). The Town had one of the higher rates of overcrowding (2.7%), as well as the highest rate of housing units built before 1940.

The information in Table 3-4 should be used cautiously. The data on central heating, complete bathrooms, and age of the unit was based on a sample, rather than a 100% survey. The information on older housing units is not necessarily an indication of deteriorated housing because the data includes expensive, pre-1940 houses which the owners have modernized. Similarly, the information on central heating systems includes units in which the owners have chosen to heat only by wood stove.

TABLE 3-4

HOUSING CONDITIONS

	Complete Kitchen	Central Heating	1 or more Complete Bathrooms	Overcrowded		Built before 1940	
				#	%	#	%
South Berwick	97.2	77.3	93.3	40	2.7	820	55.9
North Berwick	99.4	77.7	97.1	29	2.8	437	42.7
Berwick	97.1	81.9	96.5	41	2.7	584	38.6
Eliot	99.5	82.8	98.3	22	1.2	639	35.5
Wells	97.6	80.2	97.4	72	1.9	1,004	25.9
York	97.1	81.7	97.2	57	1.6	1,258	34.9
York County	98.1	81.7	95.5	1,298	2.4	22,653	42.0

## OCCUPANCY RATES

Table 3-5 contains information on the number of persons per dwelling unit, as reported in the Census for 1960, 1970, and 1980, for the six communities in the sub-region and York County. Figures from 1960 are included to show the significant decline in the occupancy rate that has occurred during the 20-year period. In South Berwick, there was a 17% decline, from 3.45 persons per dwelling to 2.86. These figures mean that in 1960, it took 290 dwellings to shelter 1,000 people; by 1980, it required 350 dwellings. South Berwick's occupancy rate is now estimated to be about 2.70 persons per dwelling, in which case it would require 370 dwellings to house 1,000 people. Clearly, the decline in household size is fueling some of the demand for additional housing units.

TABLE 3-5

DECLINE IN OCCUPANCY RATES  
(Persons per dwelling)

	1960	1970	1980
South Berwick	3.45	3.17	2.86
North Berwick	3.35	2.95	2.99
Berwick	3.56	3.16	2.93
Eliot	3.4	3.22	2.93
Wells	2.97	2.46	2.44
York	<u>3.2</u>	<u>2.95</u>	<u>2.65</u>
Total Sub-Region	3.3	3.12	2.73
York County	3.36	2.87	2.75

## HOME OWNERSHIP COSTS

Table 3-6 contains information on home ownership rates and costs including: 1980 Census data on percentage of owner-occupied dwellings and median home value; median value and average sales prices of single-family dwellings for 1987 and 1988 as reported by the Multiple Listing Service (MLS) of York County; the 1987 average sales price of single family dwellings as reported on the real estate transfer tax (RETT); adjusted State full value tax rates as reported by the Maine Bureau of Taxation, and a theoretical tax of the average-priced single-family home as reported on the real estate transfer tax, using the adjusted, State full value tax rate.

Sales data obtained from the Multiple Listing Service are generally based on 50-60% of the actual sales in a community, whereas the real estate transfer tax includes all sales. For South Berwick, 1987 figures from the Multiple Listing Service were based on 43 sales; the figures from the real estate transfer tax were based on 78 sales.

In 1980, South Berwick had the smallest percentage of owner-occupied units (74.8%) of any community in the 6-town region. Median home value was the same as North Berwick (\$42,100), but less than all other communities except Berwick (\$39,800). The 1987 sales price of a single family home, as reported on the real estate transfer tax, was \$109,059 in South Berwick, a figure far higher than either North Berwick (\$84,017) or Berwick (\$85,976), but far less than the other jurisdictions. The Town's 1987 adjusted full value tax rate (9.824) was higher than rates in Wells (8.344) and York (8.393), but less than in North Berwick (9.902), Berwick (11.056), or Eliot (9.886). In 1987, taxes on the average priced house in South Berwick (\$1,071) would have been greater than in North Berwick (\$832) or Berwick (\$951), but less than Eliot (\$1,248), Wells (\$1,104), or York (\$1,436).

TABLE 3-6

## HOME OWNERSHIP AND COSTS

	South Berwick	North Berwick	Berwick	Eliot	Wells	York
1980 - % Owner-Occupied	74.8%	84.8%	82.1%	86.5%	80.6%	81.6%
1980 Median Home Value	42,100	42,100	39,800	51,400	47,300	61,000
MLS* Median Value, 1987, 1988	112,000 110,000	93,000 107,900	92,500 104,500	154,500 136,500	107,000 124,000	153,500 162,900
MLS* Average Sales Price 1987, 1988	109,265 113,813	104,306 125,219	103,031 102,009	146,226 153,993	115,863 141,146	175,285 198,304
RETT** Average Sales Price 1987	109,059	84,017	85,976	126,226	132,355	171,103
1987 Adjusted Full Value Tax Rate	9.824	9.902	11.056	9.886	8.344	8.393
Tax on RETT Average priced Home	\$ 1,071	832	951	1,248	1,104	1,436

\* MLS - Multiple Listing Service, York County

\*\* RETT - Real Estate Transfer Tax

Source: 1980 Census, Institute for Real Estate Research,  
University of Southern Maine; Maine Bureau of Property  
Taxation

SING RENTS AND SUBSIDIES

Table 3-7 contains data from the 1980 Census on rents and renter-occupied units, current estimated needs for congregate housing prepared by the Bureau of Maine's Elderly, and current information on the number of elderly tax/rent refunds as reported by the State Bureau of Taxation, and the number of subsidized apartments in each of the six communities, as reported by the Maine State Housing Authority.

In 1980, South Berwick had the third highest average rent (\$201), being exceeded only by Eliot (\$229) and York (\$225). The Town had the highest percentage of renter-occupied units (25.2%) of any jurisdiction except the State. The Bureau of Maine's Elderly estimates that the need for congregate care facilities (a facility which may include meals, housekeeping, and personal care assistance) ranges from a minimum of 10 to a maximum of 51 units. In 1986, 11 homeowners and 12 renters received elderly tax/rent refunds. South Berwick's subsidized apartments include Grant House, with 22 units. Based on data obtained from a number of local realtors, in 1990, the average rent for a 2-bedroom unit was about \$550.

TABLE 3-7

HOUSING RENT AND SUBSIDY INFORMATION

	1980 Rent	1980 % Renter Occupied	1985 Congregate Need		1986 Tax/Rent Refunds Owns Rents		Subsidized Apartments
			Max.	Min.			
South Berwick	201	25.2	51	10	11	12	Grant House 22
North Berwick	171	15.2	35	7	10	4	Prescott Heights 20
Berwick	166	17.9	41	8	26	24	Applegate Village 28
Eliot	229	13.5	49	10	16	4	-
Wells	186	19.4	139	28	40	18	Sunnyside 20 S.Eaton 36
York	225	18.4	116	23	31	13	Yorkshire Commons 32
York County	177	24.4	-	-	-	-	-
State	173	25.3	14,807	2,961	9,493	8,598	-

## HOUSING AFFORDABILITY

Housing affordability is a serious problem in South Berwick, not just for low income people, but for middle income people as well. Table 3-8 shows what the costs would be for purchasing the 1988 median priced home in South Berwick, assuming a 30-year mortgage and varying interest rates and down payments. The data shows that the median family could afford the median price home only with an interest rate of 10% or less, and a down payment of 20%.

The monthly payments do not include homeowner's insurance, which is required by virtually all banks, or household maintenance and repair costs. The last column of the table shows what percentage of the payment the median income family (\$36,800) could afford. For the purpose of calculating affordability, the Maine State Housing Authority stipulates that no more than 28% of the household's gross income should be directed to mortgage payments. The household income figure of \$36,800 is calculated by the Census Bureau for York County communities in the Rochester Metropolitan Statistical Area, of which South Berwick is considered a part; the York County figure for non-MSA communities is lower.

TABLE 3-8

COST OF PURCHASING 1988 MEDIAN PRICED  
SINGLE-FAMILY HOME IN SOUTH BERWICK  
(\$110,000)

Interest Rate	Down Payment	Annual Income Needed	Monthly Payments*	Affordability Index**
10	5 %	\$ 44,639	\$ 1,042	82.4
10	10 %	42,471	991	86.6
10	20 %	36,594	854	100.6
10.5	5 %	46,293	1,081	79.5
10.5	10 %	44,040	1,028	83.6
10.5	20 %	37,989	887	96.9
11	5 %	47,981	1,120	76.7
11	10 %	45,667	1,066	80.6
11	20 %	39,421	920	93.4

\* - Includes taxes, mortgage insurance for 5% and 10% down payment.

\*\* - The percentage of the necessary income which the median household would have to make this payment.

Source: Maine State Housing Authority

Table 3-9 shows the maximum mortgage which the median income family can afford, while Table 3-10 shows the maximum mortgage which a household at 80% of the median household income can afford. The data assumes a 30-year mortgage, and does not take into consideration homeowner's insurance.

TABLE 3-9

MAXIMUM MORTGAGE WHICH MEDIAN INCOME  
HOUSEHOLD (\$36,800) CAN AFFORD

Interest Rate	Maximum Mortgage	Maximum Monthly Payment
10 %	\$ 86,000	\$ 854
10.5 %	83,000	854
11 %	80,000	854

TABLE 3-10

MAXIMUM MORTGAGE WHICH HOUSEHOLD AT  
80% OF MEDIAN (\$29,400) CAN AFFORD

Interest Rate	Maximum Mortgage	Maximum Monthly Payment
10 %	\$ 70,000	\$ 696
10.5 %	66,000	680
11 %	65,000	695

The State's growth management legislation, Title 30 MRSA Section 4960-C, 4-C(7), states in part "The municipality shall seek to achieve a level of 10% of new residential development..meeting the definition of affordable housing." Affordable housing is defined in Section 4960-B as follows:

"1. Affordable housing. "Affordable housing" means decent, safe and sanitary dwellings, apartments or other living accommodations for households making the full range of incomes at

or below 80% of the median household income as determined by the Department of Economic and Community Development. Affordable housing includes, but is not limited to, government assisted housing, housing for low-income and moderate-income families, manufactured housing, multi-family housing and group and foster care facilities."

The legislative requirement is a formidable challenge. South Berwick can do little to affect market conditions. The Town could allow increased densities and smaller living units, at least in some portions of the community, but there is no data on the extent to which such actions would reduce housing costs, and no guarantee that any savings would be passed on to the purchaser or renter. Furthermore, there is no guarantee that such units would remain affordable in the future.

Some practical steps which South Berwick could consider were outlined in "Affordable Housing, a Handbook for Maine Citizens and Towns," prepared by the Governor's Task Force on Affordable Housing in 1988. These include:

1. Housing Variety. Ensure that the Town's Zoning Ordinance allows a diversity of housing types, including single-family homes on large lots and small lots; apartment additions for old homes; duplexes and attached housing; multiplex and apartment housing; mobile home parks; manufactured homes on single lots; and group homes for the elderly and handicapped.
2. Zoning Density. Ensure that zones exist where: single-family homes can be built on lots less than 15,000 square feet in sewered areas, and less than 1 acre in unsewered areas; multi-family dwellings can be built on lots less than 5,000 square feet; cluster development is allowed.
3. Unnecessary Requirements. Reduce subdivision development requirements as follows:
  - Allow developments without curbs
  - Allow one-piece rolled curbs
  - Eliminate requirement for sidewalks on both sides of the street
  - Replace sidewalks with paths
  - Allow natural drainage systems
  - Allow curvilinear storm pipes
  - Allow plastic pipes
  - Allow road widths to vary with traffic volume.

4. Approval Process. Speed up the approval process by the following:
  - Set time limits for review and approval
  - Create a "one-step" permit system where multiple reviews are necessary
  - Clarify requirements that are vague and subject to multiple interpretations.
  
5. Incentives. Create financial incentives for developers to build affordable housing.
  - Allow a density bonus (such as 25%) if a certain percentage of the units are affordable (such as 20%),
  - Provide town services (water, sewer) to a project that provides affordable housing.
  - Require that in larger projects (such as 50 units or more) a certain percentage of the units be affordable. Ensure by deed restrictions that such units stay affordable.
  - Create a land bank with tax acquired property, surplus property, or donated land, and allow a developer, a non-profit developer, or a community housing authority or similar organization to construct affordable units. A non-profit housing corporation can be formed to take advantage of the Affordable Housing Partnership Act of 1969, under which low interest loans can be obtained from the Maine State Housing Authority to construct affordable housing (such loans are also available to developers).
  - Set up a volunteer repair crew.
  - Create a regional housing partnership.

For the most part South Berwick encourages affordable housing through its zoning regulations. Lot sizes in the downtown area are 10,000 square feet. The Town permits multi-family dwellings throughout Town and also allows the conversion of large single family residences into multi-family dwellings. Cluster development and Planned Unit Developments are encouraged.

In some instances however, particularly in the Town's Subdivision Ordinance, requirements for large paved roads (24 feet in width), sidewalks, and granite curbing may be considered unnecessary.

## HOUSING DEVELOPMENT PATTERNS

South Berwick has traditionally been a village-based community with population density greatest near the village, and more rural areas in outlying areas. Approximately 60% of the Town's housing units are located in the village area and the area bounded by the Great Works River and Lover's Brook. This area comprises only about 15% of the land area of the community. With higher densities allowed in the village, due to the availability of water and sewer, this area has been targeted for development first.

In recent years, the development pattern has changed. Large subdivisions are being developed in outlying areas without any discernible pattern, and in virtually every section of the community. There have been few incentives to develop the land immediately adjacent to the village, which would be the most logical area for the extension of water and sewer services.

## PLANNING CONSIDERATIONS

1. Housing affordability in South Berwick is driven primarily by market forces beyond the Town's control, as evidenced by the fact that housing prices have dropped since the completion of the housing inventory contained in this Plan. However, the Town's development approval process probably adds to the cost of development. \*The Town can take steps to improve the administrative efficiency of its ordinances, thus reducing overall housing costs. †
2. The Town's Zoning Ordinance addresses affordability by allowing conversion of single-family homes to multi-family dwellings, and by allowing mobile homes throughout the community. Thus, allowable structure types do not seem to be causing the affordability crunch.

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## SECTION 4. NATURAL RESOURCES

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### TOPOGRAPHY, GEOLOGY AND LAND COVER

#### INTRODUCTION

The geologic characteristics of an area determine its topography. Topography, in turn, influences land cover and land suitability for many human activities, such as construction of buildings, waste disposal, installation of utilities and vehicle access.

The slope of the land is perhaps the topographic characteristic that has the greatest impact on land use activities. Slopes greater than 15% can limit development capabilities. The State Plumbing Code prohibits the installation of subsurface sewage disposal on slopes in excess of 20%.

Depth to bedrock is another important characteristic that can limit development potential. Utilities, roads, cellars and septic systems can be difficult and expensive to build when the depth to bedrock is less than twenty inches. Areas with bedrock depths greater than forty inches generally do not present any land use constraints from a depth to bedrock standpoint.

#### TOPOGRAPHY AND GEOLOGY

South Berwick's topography is generally characterized by gently rolling hills interspersed with the Great Works River, several lakes, and numerous streams and wetland areas. The eastern portion of the Town is bounded by the Salmon Falls River.

The Surficial Geologic Map of Maine, published by the Maine Geological Survey in 1985, reveals that the topography of the Town is a result of events that occurred during the last ice age at a time when ancient oceans extended over parts of Southern Maine and glaciers scraped, scoured and coated other areas with glacial tills, sands and clays. A large part of the northeastern section of the Town consists primarily of glacio-marine deposits that accumulated on lowland areas submerged in the ancient ocean. These deposits consist of silt, sand, clay and minor amounts of gravel. The topography is generally flat to gently sloping, except where dissected by modern streams. The steepest slopes (over 15%) occur on Powderhouse Hill.

The southeastern half of the Town and a portion of the northeastern section consists of glacial till deposited directly by glacial ice. Glacial till is a heterogeneous mixture of sand,

silt, clay and stones that form a blanket deposit that conforms to the underlying bedrock. These sections of South Berwick tend to have steeper slopes and to be more dissected by streams and wetlands than the areas covered by the ancient oceans. The steepest slopes occur just south of Hamilton Brook along the Salmon Falls River, the east side of the Rocky Hills bordering Route 236 and in association with Welch, Brown and Spring Hills in the northern part of South Berwick.

#### DEPTH TO BEDROCK

Areas with shallow depths to bedrock in South Berwick are characterized by Lyman soils. These soils, which were formed in a thin layer of glacial till, are on bedrock controlled landforms that were modified by glacial action. Lyman soils characteristically have depths to bedrock that range from ten to twenty inches.

Depth to bedrock is perhaps of greatest concern in areas being considered for future growth and the extension of sewer and water lines. Depth to bedrock is a constraint in a number of potential growth areas surrounding the built up portion of the Town. Many of the areas located along Route 236 - north of the Great Works River, Brattle Street - before it bends southward, Fife Street, Old South Road and Witchtrot Road, all to the south of the village, consist of the shallow Lyman soils. There appear to be some areas along Vine Street, Brattle Street - after it bends southward, Route 236 - south of the Great Works River and Route 91 where depth to bedrock is not a constraint. Areas directly to the north and west of the village, along Route 4 and Agamenticus Road appear to be less plagued by shallow soils.

#### LAND COVER

The Town's topography and geologic history have influenced the existing land cover. When the settlers arrived in the late 1700s the existing forest vegetation was cleared in flatter areas adjacent to waterbodies, such as the Salmon Falls River, and along roadways which were built following the paths of least resistance. At the height of agricultural activity, around the mid 1800s, many areas of South Berwick had been cleared. With the industrial revolution and the migration of farmers to urban areas in search of higher paying jobs at the end of the nineteenth century, many of the fields and pastures were abandoned and allowed to revert to second growth forest.

Today, it is roughly estimated from aerial photographs that 60% to 70% of the Town is forested. Much of the open land is found within one to two miles of the Salmon Falls River. Other open areas are interspersed along roadways throughout most of the Town, with the exception of that portion of the Town that lies near/within the Mount Agamenticus region, which is heavily forested.

Notes: Land cover mapping has never been completed for the Town of South Berwick. The chapter on Forestry and Agriculture contains more information on forest cover types.

SOILS

Since soils can have an impact on most land use activities, it is important to understand their characteristics, capacity and limitations. Many of South Berwick's soils have limitations for development. Often these limitations can be overcome through special planning, design, construction and/or maintenance. In other cases, the soils are entirely unsuitable for particular uses.

The U.S. Soil Conservation Service has published a Soil Survey for York County, which includes a map of the different soils and information on their characteristics. While the soils map displays the predominate soil type for an area, there may be pockets of other soils within that area. Soil survey information is useful for Town-wide planning. However, a high intensity soil survey is necessary to gather the precise information needed for individual site planning. Map 4-1 shows poorly drained and very poorly drained soils for South Berwick.

According to the Soil Survey, there are seven soil associations located in South Berwick. Associations are groups of different soil types that usually occur together. Each association has major and minor soils within it. For example, the Adams-Colton Association has six minor soils. The following table describes each of South Berwick's seven Associations.

TABLE 4-1

SOIL ASSOCIATIONS AND THEIR CHARACTERISTICS

Soil Association Description	Location	Limitations
<b>Adams-Colton Association:</b> Deep, nearly level to steep excessively drained soils formed in material deposited by glacial meltwater.	Outwash plains, kame terraces and eskers (ridges). Village area.	Adams and colton soils have slight to moderate limitations for on-site sewage disposal; ground water contamination can be a hazard. Slope is the major limitation for septic systems and construction.
<b>Naumburg-Croghan Association:</b> Deep, nearly level and gently sloping, poorly drained to moderately well drained soils formed in material deposited by glacial meltwater	Outwash plains. Northwestern and extreme southern portions of Town.	Naumburg soils are somewhat poorly drained to poorly drained. Croghan soils are moderately well drained. Limitations are wetness due to seasonal high water tables and droughtiness in summer due to rapid permeability. Naumburg soils are generally not suitable for on-site sewage disposal or construction.

## (SOILS)

Soil Association Description	Location	Limitations
<b>Marlow-Brayton-Peru Association:</b> Deep, nearly level to moderately steep, well drained to poorly drained soils formed in moderately coarse textured, compact glacial till.	Drumlins (low elongated hill) and glaciated uplands. An area just north of the village and central and southern portions of Town.	Slow permeability in substratum and a seasonal perched water table are major limitations for most uses. Slope is limitation in moderately steep areas.
<b>Heron-Lyman Association:</b> Shallow and deep, gently sloping to very steep, well drained to somewhat excessively drained soils formed in friable glacial till.	Plains, hills and ridges. Large portion of central and eastern South Berwick.	Limitations for on-site sewage disposal and construction are slope, rapid permeability, and shallow depth to bedrock in Lyman soils. Slope is a limitation in steeper areas. Erosion on steeper areas can be a hazard.
<b>Lyman-Rock Outcrop-Sebago Association:</b> Shallow, gently sloping to very steep somewhat excessively drained soils formed in shallow glacial till; areas of bedrock exposures; and deep, level, very poorly drained soils formed in organic material.	Lyman and rock outcrops on hills, and ridges; Sebago soils in depressions. Small north-eastern section and southern section of Town.	Poorly suited for on-site septic systems and construction. Limitations are bedrock exposures, shallow soil depth of the Lyman soils, and the high water table and low strength of Sebago soils.
<b>Scantic-Raynham-Burton Association:</b> Deep, nearly level to moderately steep and hilly, poorly drained to moderately well drained soils formed in marine and lacustrine sediments.	Marine plains and lake plains. Area surrounding the village and small section in northern part of S. Berwick.	Slope, the high water table in the Scantic and Raynham soils, and slow permeability in the Scantic and Burton soils are the main limitations for most uses.
<b>Lyman-Rock Outcrop-Scantic Association:</b> Shallow, gently sloping to very steep, somewhat excessively drained soils formed in glacial till; areas of bedrock exposures; and deep, nearly level, poorly drained soils formed in marine and lacustrine sediments.	Lyman soils and Rock Outcrop on ridges and hills; Scantic on marine plains.	The major soils are not suitable for on-site septic systems or construction. Limitations are bedrock exposures, droughtiness, shallow depth to bedrock in the Lyman soils, and high water table in Scantic soils. Slope is a limitation in steeper areas.

Source: Soil Survey of York County, Maine, USDA

## WETLANDS

The U.S. Fish and Wildlife Service specifically defines wetlands as follows:

"Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: 1) at least periodically, the land supports predominantly hydrophytes (wetland vegetation); 2) the substrate is predominantly undrained hydric (waterlogged) soil; and 3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year." (Cowardin, et al. 1979)

### TYPES OF WETLANDS

Wetlands can be classified as coastal (brackish or salt water wetlands) or inland freshwater wetlands. The National Wetlands Inventory further classifies wetlands into five ecological systems:

Marine System - consists of the open ocean and its associated coastline. It is mostly a deepwater habitat system, with marine wetlands limited to intertidal areas like beaches and rocky shores.

Estuarine System - includes coastal wetlands like salt and brackish tidal marshes, and intertidal flats, as well as deepwater bays, sounds and coastal rivers.

Riverine System - is limited to freshwater river and stream channels and is mainly a deepwater habitat system.

Lacustrine System - is also a deepwater dominated system, but includes standing waterbodies like lakes, reservoirs and deep ponds.

Palustrine System - encompasses the vast majority of the inland marshes, bogs and swamps and does not include any deepwater habitat. Most of the wetlands in South Berwick are included in this system.

## THE ROLE OF WETLANDS

For many areas, wetlands were considered breeding habitat for mosquitoes and areas that needed to be drained or filled for agricultural purposes or to create developable land. More recently, there has been a growing awareness of the value of wetlands. In a recent study of the impacts of development in Southern Maine, the State Planning Office examined the functions of wetlands and the implications of the loss of these areas. The State study identified the following features:

1. Ground water recharge. Wetlands may serve to replenish and cleanse aquifers which the Town uses for water supply.
2. Ground water discharge. Ground water may discharge into wetlands, providing public water supply, wildlife habitat, and a means of maintaining lake and river quality.
3. Flood flow alteration. Wetlands serve as temporary storage areas during high water flows, thus reducing peak flows and potentially damaging floods.
4. Sediment and toxicant retention. In agricultural areas, wetlands can retain and stabilize sediments and toxic materials.
5. Nutrient retention and removal. Wetlands can retain or transform inorganic phosphorus and/or nitrogen into their organic form and may save downstream lakes and ponds from eutrophication.
6. Productivity export. Wetlands flush out dead plant and animal life, thereby providing nutrients for a new generation of plant and animal life.
7. Aquatic diversity. Certain wetlands provide habitat, including breeding grounds and nurseries, for fish.
8. Wildlife diversity and abundance. Wetlands serve as habitat and a food source for birds, deer, and other animals.
9. Uniqueness. A number of rare plant and animal species can be found in wetlands. Approximately 43% of the 230 rare plants which occur in Maine are found exclusively in wetlands.

In addition, wetlands provide opportunities for passive outdoor recreation opportunities,

## CLASSIFICATION AND LOCATION OF WETLANDS

Wetlands can be inventoried and classified in a variety of ways - by soil type, vegetation, and size, to name a few. Wetlands have been mapped according to "poorly drained" and "very poorly drained" soils, based on the medium intensity soil survey

## SOIL SUITABILITY FOR DEVELOPMENT

Various soil characteristics, such as depth to water table, depth to bedrock, flooding potential and erosion potential can present serious limitations to development. For example, roads, utilities and cellar foundations are difficult and expensive when bedrock is present.

Perhaps one of the most limiting characteristics is depth to water table. Wet, very poorly drained soils where the water table is at or within 9 inches of the surface for some part of the year are inherently unusable for septic system use and house building. Poorly drained soils (9-18 inches depth to water table) also place severe limits on the use of the land. Frequent fluctuations in water level as well as frost heaving can be damaging to buildings, roads and the proper functioning of septic systems. These limitations can sometimes be overcome through special design and maintenance.

Moderately well drained soils (18-30 inches to water table) have less severe limitations on land uses, and deep, well drained soils present few problems. The latter have a depth greater than 30 inches to water table.

Areas with poorly drained and very poorly drained soils have been mapped for South Berwick. Poorly drained soils include Brayton, Naumburg, Raynham, Scantic and Rumney soils. Very poorly drained soils include Biddeford, Saco, Waskish, Vassalboro, Sebago and Chocurua.

Areas with poorly drained and very poorly drained soils can be found throughout South Berwick. The largest concentration of poorly drained soils is located just northeast of the village area and extends beyond Agamenticus Station.

## SOIL SUITABILITY FOR STUMP/DEMOLITION DISPOSAL

A number of municipalities, in York County, including South Berwick, are attempting to identify sites for the disposal of stumps and demolition/construction debris. The Stump/Demolition Disposal Study completed in 1987 by the Southern Maine Regional Planning Commission identified four York County soils that were suitable for landfills. Three of these soils, Marlow, Peru and Skerry, can be found in South Berwick. Marlow soils are preferable because they have a greater depth to water table. However, the Study determined that South Berwick had only limited acreage of suitable soils. A more in depth discussion of this issue is contained in the section on Solid Waste.

prepared by the U.S. Department of Agriculture, Soil Conservation Service. An overlay of these soils is on file in the Town office.

The Maine Geological Survey of the Maine Department of Conservation has mapped 11 wetlands of 10 acres or more on maps of 1:50,000 scale. The wetlands were identified based on aerial photographs at a scale of 1:40,000 flown in 1980-81. The wetland boundaries, which are shown on Map No. 4-2, represent the limits of the wetlands at the time the photographs were taken; actual areas of the wetland will vary seasonally. The characteristics of these wetlands are shown in Tables 4-2 and 4-3.

The National Wetlands Inventory, prepared by the U.S. Fish and Wildlife Service, goes into greater detail. Wetlands are shown by U.S.G.S. Topographical sheet; there are two "15 minute" and two "7.5 minute" maps for South Berwick. These maps were prepared in 1977 by stereoscopic analysis of high altitude aerial photographs. Again, the maps reflect the year and season they were taken. The U.S. Fish and Wildlife Service acknowledges that there is a margin of error inherent in the use of aerial photographs. The composite map for South Berwick is on file in the Town Office.

More detailed wetland studies have been undertaken for various portions of South Berwick. For example, the Mount Agamenticus Study included a wetlands study, and a detailed wetlands inventory was conducted for the Powder House Hill area.

An important concept in wetland identification and protection is the concept of a "buffer zone." The State Planning Office, as well as a number of wildlife and botany experts, have argued that a 300-foot buffer zone should be established around high value wetlands to protect wildlife habitat such as rare plants, and negate the effects of subsurface sewage disposal on wetlands. While a regulatory buffer zone raises the constitutional question of "taking without compensation," a smaller buffer area, or the use of easements could also achieve a degree of protection.

TABLE 4-2

## SUMMARY OF WETLANDS INFORMATION PREPARED BY MAINE GEOLOGICAL SURVEY

Key: EM - Emergent  
 FO - Forested  
 OW - Open Water  
 SS - Scrub/shrub

Wetland Number	Maine Inland Fisheries and Wildlife Wetland Type(s)	National Wetlands Inventory Classification(s)	Soil type(s)
<u>Southern Half of Town</u>			
19	--	SS, OW	Naumburg Sand
20	Shrub Swamp	SS/EM, SS	Raynham Silt Loam Biddeford Mucky Peat
21	--	FO	Chocorua Peat Sebago Peat
22	--	FO	Chocorua Peat Sebago Peat
23	--	FO	Vassalboro Peat
24	--	FO	Vassalboro Peat
25	--	SS/EM	Sebago Peat
26	--	FO	Biddeford Mucky Peat
27	--	FO	Chocorua Peat
29	Shrub Swamp	FO/SS, FO	Sebago Peat Lyman-Rock Outcrop Complex, 8-15 % slopes
<u>Northern Half of Town</u>			
27	--	--	Sebago Peat
28	--	FO	Raynham Silt Loam
29	Shrub Swamp	SS/EM, FO/SS	Sebago Peat Chocorua Peat
30	--	FO/SS	Sebago Peat
31	--	FO, FO/SS	Chocorua Peat
34	Inland Fresh Meadow	SS/EM	Vassalboro Peat, Ponded

TABLE 4-3

## KEY TO SYMBOLS USED IN NATIONAL WETLANDS INVENTORY, MAP 2

Systems	Subsystems	Classes
E - Estuarine	1 - Subtidal	AB - Aquatic Bed
	2 - Intertidal	BB - Beach/Bar
M - Marine	1 - Subtidal	EM - Emergent
	2 - Intertidal	FL - Flat
L - Lacustrine	1 - Limnetic	FO - Forested
	2 - Littoral	ML - Moss/Lichen
P - Palustrine	None	OW - Open Water
R - Riverine	1 - Tidal	RB - Rocky Bottom
	2 - Lower Perennial	RF - Reef
	3 - Upper Perennial	RS - Rocky Shore
	4 - Intermittent	SB - Streambed
	5 - Unknown Perennial	UB - Unconsolidated Bottom

## REGULATION OF WETLANDS

The Mandatory Shoreland Act, Title 38 MRSA Sections 435-448, requires that municipalities regulate the area of land around wetlands. The Department of Environmental Protection is in the process of determining which wetlands will be regulated, and the standards that must be applied to them. As of this writing, towns will be given until July 1, 1991 to adopt shoreland zoning regulations to the land areas adjacent to these water bodies. Wetlands of 10 acres or more which are not part of a great pond or river are protected by the State's Natural Resources Protection Act, Title 38 MRSA Sections 490-A through 480-S. The Town of South Berwick now regulates all land use activities within 250 feet of wetlands of 2 acres or more in size.

## FUTURE STUDIES

The State is currently involved in a detailed study of wetlands in South Berwick which may be completed in the early part of 1990. This study may provide additional information on the value of specific wetlands for wildlife, recreation, esthetics, and other natural resource values. Upon a determination of wetland values, the Town will be in a stronger position to regulate activities in and adjacent to various wetlands.

## WATER RESOURCES

The Town of South Berwick is blessed with an abundance of water resources from ponds to streams, to rivers to wetlands, to sand and gravel aquifers to bedrock aquifers. These resources provide numerous benefits including drinking water supplies, recreation, wildlife habitat and scenic beauty.

### SURFACE WATER RESOURCES

The Town's surface water resources include two rivers, five ponds and numerous brooks, streams and wetlands. Waterways will be discussed here and wetlands will be presented in another section.

The Salmon Falls River, which is the Town's largest river, forms the southeasterly boundary between South Berwick and the State of New Hampshire. The Salmon Falls River is the Town's link with the Atlantic Ocean. The river flows into the Piscataqua River which in turn flows into Portsmouth Harbor and the Atlantic Ocean. The water of the Salmon Falls River is tidewater to the Rollinsford/South Berwick (Route 4) bridge.

Most of South Berwick lies within the Salmon Falls River watershed. A portion of the northeasterly corner of the Town is within the Ogunquit River watershed and a small portion in the southeasterly corner of the Town lies within the York Pond/York River watershed.

The Great Works River, Driscoll Brook, Hamilton Brook, Lord Brook, and Quamphegan Brook all drain directly into the Salmon Falls River. The Great Works River watershed, which is a subwatershed of the Salmon Falls River watershed, has a total drainage area of 86 square miles; about 40 square miles are in South Berwick. Tributaries to the Great Falls River lying within South Berwick include: Boyd Brook, Chicks Brook, Hussey Brook, Hoopers Brook, Lover's Brook, White Marsh Brook, Knights Brook and numerous other unnamed streams.

### WATER QUALITY OF WATERWAYS

Most of South Berwick's waterways currently meet State water quality standards. The water quality classification system allows the State to manage its surface water so as to protect the quality of those waters and, where water quality standards are not being achieved, to enhance water quality. Each classification designates the minimum level of quality which the State intends for a waterway.

The Salmon Falls River is classified as SB below tidewater and B above tidewater. The river does not meet this standard below tidewater or for four miles above tidewater. Tidewater areas are closed to shellfish harvesting.

Class SB is the second highest classification of estuarine and marine waters. Class SB waters should be suitable for recreation, fishing, aquaculture, harvesting of shellfish, some industrial processes, hydroelectric power generation, navigation and as a habitat for fish and other estuarine and marine life.

The Great Works River and most of its tributaries meet their Class B designation. Only Lover's Brook is below the water quality classification, particularly with regard to the level of dissolved oxygen. Class B is the third highest classification for fresh water. Class B waters should be suitable for drinking water supply after treatment, fishing and recreation, some industrial processes and hydroelectric power generation, and as habitat for fish and other aquatic life.

#### PONDS

South Berwick's five ponds all lie within the Great Works River watershed. Table 4-4 contains information on the physical characteristics and vulnerability of these waterbodies. The Maine Department of Environmental Protection has identified the Town's ponds as extremely or highly vulnerable. This means that none of these ponds is very tolerant of extensive development, such as building and road construction which might increase phosphorus levels and reduce overall water quality.

TABLE 4-4

#### PONDS

Pond Name	Surface Area (acres)	Drainage Area (sq.miles)	Max. Depth (feet)	Mean Depth (feet)	Vulnerability*
Cox Pond	20.0	568	16	10	Extremely
Knights Pond	49.4	250	18	9	Highly
Leighs Mill Pond	39.5	55,425	23	10	Extremely
Round Pond	1.0	NA	NA	NA	Extremely
Warren Pond	24.7	269	32	16	Highly

\* Based on a vulnerability index which takes into consideration watershed area, flushing rates and town-wide growth rates between 1982-1987 within towns located in the watershed. For example, a lake with a large watershed, slow flushing rate and a high growth rate would be extremely vulnerable.

Source: Maine Department of Environmental Protection

## GROUND WATER RESOURCES

The residents of South Berwick rely on ground water for their safe drinking water. Continued assurance of plentiful, clean water is dependent on wise management of the resource. Aquifers (saturated geological formations containing usable quantities of water), can be contaminated by many different types of land uses that discharge pollutants into or onto the ground. The primary sources of ground water contamination in Maine are malfunctioning septic tanks, leaking underground fuel storage tanks, salt leachate from salt/sand stockpiles, and leachate from landfill refuse. Certain land uses such as automobile graveyards/junkyards, agricultural use of pesticides and herbicides, and certain industrial activities also have the potential for contaminating ground water.

Two types of aquifers are present in South Berwick: sand and gravel aquifers and bedrock aquifers. At least several of the sand and gravel aquifers extend into Berwick and Eliot. An area of potential bedrock aquifers extends into Berwick and North Berwick. The Maine Geological Survey has identified several sand and gravel aquifers. The "Aquifer Protection Study" done March, 1989, by R.W. Gillespie & Associates further identified sand and gravel aquifers and located bedrock aquifer zones that appear to have significant water supply potential (see Map 4-3). This study also identified potential hazardous waste generators and developed an aquifer protection ordinance.

### SAND AND GRAVEL AQUIFERS

Four sand and gravel aquifers were identified in South Berwick. These are aquifers that have the potential to produce significant (greater than ten gallons per minute) quantities of ground water. These aquifers as well as their recharge areas have been mapped.

The aquifer that underlies the village portion of the Town supplies the Water District's seven wells at Agamenticus Station. The aquifer located in the most southerly part of the Town is a source of water supply for individuals only. According to the Aquifer Study the water quality in this area is lower than the village aquifer due to iron and manganese content.

Another aquifer is located on the Hooper Sands Road just southwest of Great Hill. Approximately 9 individual wells along Hooper Sands Road and Knights' Pond Road are contaminated with volatile organic compounds. The U.S. Environmental Protection Agency has earmarked 1.7 million dollars for clean-up and the extension of a water line to this area. These wells are believed to be supplied by the sand and gravel aquifer. The Department of Environmental Protection is studying the area to determine the source and extent of contamination.

## FLOODPLAINS

Throughout Maine, flooding has been an historical and ongoing problem which has resulted in extensive damage to properties and threats to human safety. Along major rivers, flooding problems can be made worse by development which creates impervious surfaces, such as asphalt and concretes. Such impervious surfaces can increase stormwater runoff and downstream flooding. Fortunately, flooding has not been a serious problem in South Berwick. With the exception of Driscoll Brook, there is very little development associated with floodplains in the Town.

The National Flood Insurance Program has been designed to provide flood insurance for existing properties and to discourage additional development within the 100-year floodplain. A 100 year flood is a flood that has one chance in 100 of being equalled or exceeded in any one-year period. The land area that is inundated by a 100 year flood is the 100 year floodplain. The Federal Emergency Management Agency, which administers the National Flood Insurance Program, has mapped South Berwick's floodplains. The Flood Insurance Rate Map, which became effective June 5, 1985, includes a detailed flood study of the Great Works River from the dam on Leighs Mill Pond upstream to the Town border near Old South Berwick Road. The flood study of the Great Works River includes detailed cross-sections and flood plain elevations. Approximate flood boundaries are shown for other bodies of water, including:

Salmon Falls River	Bennett Brook	Boyd Brook
Ogunquit River	White Marsh Brook	Chicks Brook
Quampegan Brook	Knights Brook	Several wetlands
Driscoll Brook	Hoppers Brook	near York Woods
Brook Lovers Brook	Hussey Brook	Road
Hilton Brook	Shorey's Brook	

The requirements of the Flood Insurance Program stipulate that municipalities enact flood plain regulations limiting development in flood plain areas. South Berwick has more than met the requirements of the program through provisions of the Town's Zoning Ordinance; all 100 year floodplains are designated as resource protection areas which prohibit most development related activities. Implicit in the Town's regulations is the recognition that floodplains are suitable for some uses, such as open space, recreational uses not requiring major structures, and wildlife habitat.

Flooding has not been a serious problem in South Berwick, and the Town's regulatory framework ensures that major developments will not take place in known floodplain areas.

## WILDLIFE RESOURCES

NOTE: The information contained in this section is based on information obtained from the Department of Inland Fisheries and Wildlife. Information on fisheries is unavailable at this time but should be available sometime within the next year.

### OVERVIEW

The Town of South Berwick has a number of important wildlife resources including deer wintering areas, wetlands critical to waterfowl and other species, and one wildlife concentration area. It is of extreme importance that these areas are carefully managed so as to protect the wildlife resources. Wildlife is important for recreational enjoyment, as well as for maintaining species diversity and abundance.

### DEER WINTERING AREAS

The availability of deer wintering areas leads to higher deer populations year round. Deer in Maine are forced to survive during the winter with limited amounts of food, low temperatures, and wind chill. Severe winters or less than ideal winter habitats can seriously reduce the deer population. Deer wintering areas have a softwood cover which maintains warmer than average temperatures and less wind chill, and allows deer to travel more easily due to less snow accumulating on the ground.

The two deer wintering areas in the Town of South Berwick, which are displayed on the accompanying map, include one at Rocky Hills and another along Boyd Brook. The identification of these areas was based on a determination that the forest cover type is an appropriate habitat for a deer yard. Aerial surveys and more detailed field investigations are necessary to establish the actual value of these areas as deer yards.

Officials from the Maine Department of Inland Fisheries and Wildlife (IFW) recommend that they be consulted when development is proposed in or adjacent to deer yards, as development is often incompatible with deer yard viability.

IFW officials also recommend a specific amount of timber harvesting in deer yards should be allowed since it is an essential component of deer wintering area management. While fifty percent of a deer yard area should be maintained as mature softwoods, as much as twenty percent of the total timber volume can be harvested within any fifteen year period. Single openings in the forest canopy created during timber harvesting should not exceed 14,000 square feet and openings larger than 10,000 square feet should be no closer than 150 feet to one another. Only temporary, light use roads are recommended for timber harvesting

purposes. Consultation with the IFW is recommended before any deer wintering area management plan is implemented.

#### WETLANDS

The IFW has recently ranked the wetlands in South Berwick according to their value for wildlife. These wetlands and their ratings (low, moderate, and high value) may be viewed on Map 4-4. Note that this map differs somewhat from the map prepared by the Maine Geological Survey (Map 4-1). The IFW recommends that land use activities which involve draining, filling and waste disposal should not be allowed in high and moderate value wetlands. Riparian habitat within 250 feet or more of all high and moderate value wetlands should also be protected from development and modifications such as filling and clear-cutting. The first 100 feet of riparian habitat should be left in its natural state. Within the remaining 150 feet, timber harvesting should not remove, in any ten year period, more than twenty percent of the volume of trees six inches or larger in diameter. Single openings in the forest should not exceed 14,000 square feet and canopy openings greater than 10,000 square feet should be no closer than 100 feet apart. Development should not be allowed to occur in this area without consulting IFW officials.

For low value wetlands, land use activities such as draining, filling, and waste disposal should be considered unacceptable. In addition, riparian habitat within 100 feet or more of all low value wetlands should be protected from development or modifications. Land within 250 feet of wetlands of unknown value should not be developed until the IFW is consulted.

#### MARINE RESOURCES/SALMON FALLS RIVER

IFW has recognized the Salmon Falls River as another special wildlife habitat, and has classified the river as a class B coastal wildlife concentration area. This coastal area is considered unique for the abundance and diversity of wildlife found there, and because of its importance for rare species. Concentration areas should remain undisturbed in order to maintain the existing distribution, diversity, and abundance of Maine's coastal wildlife. The class B rating refers to the fact that it is an area that is significant within a region of the Maine coast. A class A rating would mean that the area is significant on a national or state level.

The Department of Marine Resources is the State agency with jurisdiction over all fishery resources in the coastal waters of the State of Maine. The Salmon Falls and Great Works Rivers are under tidal influence up to the base of the first dams on each of these rivers; fishery resources in these areas are under the jurisdiction of the Department of Marine Resources. The Town of South Berwick was granted the right to harvest alewives from the Salmon Falls and Great Works Rivers in 1973 by the 106th Maine Legislature. The Town annually provides for conservation and/or

harvesting regulations which are approved by DMR. In addition to alewives, other anadromous fishery resources of the Salmon Falls and Great Works Rivers include blueback herring, rainbow smelt, Atlantic sturgeon, American shad, striped bass and Atlantic salmon. Blueback herring, a species closely related to alewives, are harvested concurrently with the annual spring alewife run. In recent years, due to the low levels of alewife and blueback herring, the Town has closed both these rivers for conservation purposes. The current small runs of American shad, Atlantic salmon and Atlantic sturgeon are too small to support major fisheries, although these species are incidentally caught by commercial and recreational fishermen in the area. Striped bass and rainbow smelt support moderate to substantial recreational fishing activity. One of the best rainbow smelt spring fisheries occurs in the Great Works River immediately below the Leigh's Mill Dam. Striped bass recreational fisheries occur throughout the tidal waters of the Salmon Falls and Great Works Rivers in the spring, summer and fall seasons.

There are significant oyster beds in the Salmon Falls River extending from several hundred yards north of the Route 101 bridge south into Eliot. The oyster beds in South Berwick and Eliot are the only commercially exploited American oyster, Crassastrea virginica, resources in Maine. Only South Berwick's were harvested in 1990. (There is a small resource in the Sheepscot River that is currently not open to any harvesting.) Pollution from municipalities such as Dover, New Hampshire, and South Berwick limit harvesting of the Salmon Falls oyster resource to a harvester that can cleanse the shellstock before marketing through relaying into clean waters and controlled self cleansing in the depuration plant at Spinney Creek, Elliot. Unfortunately the water quality does not permit the oysters to be harvested for recreation or direct marketing.

The harvest of oysters even for depuration purposes had to be suspended in 1988 during periods when concentrations of fecal coliform bacteria exceeded the maximum limits in past winters until the occurrences were correlated with seasonal chlorination abatement at the South Berwick municipal waste water treatment facility. In 1989 the plant resumed chlorination through a request of the oyster harvester and water quality returned to acceptable standards.

The maintenance of water quality through chlorinating the waste water is an expense to the Town that benefits the commercial fishery. Chlorination itself is a degradation to water quality that can adversely affect anadromous fish behavior. It would be beneficial to the quality of the Piscataqua River watershed if treatment facilities could be improved to the extent that chlorination could be reduced or abated. Dover, New Hampshire is constructing a new waste water treatment facility that uses ultraviolet light to disinfect the final product before it enters the Piscataqua River opposite Sturgeon Creek.

The Salmon Falls River is inhabited by waterfowl such as Black Ducks, Goldeneyes, Herring Gulls, Black Back Gulls, Cormorants and Great Blue Heron. Black Racers, a rare species of snake, also have been sited in the area. According to Jonathan Wright, a Marine Patrol Officer in the South Berwick area, alewives and eels are the two commercially important marine species in the Salmon Falls River. Striped Bass and Atlantic Salmon are present in the River, but cannot be marketed commercially. However, these fish are important for recreational purposes.

Increases in land use activities can negatively affect the wildlife in the areas in and along the Salmon Falls River by creating changes in water quality, food base, and habitat availability. The Department of Inland Fisheries and Wildlife recommends that a riparian buffer zone of 100 feet or more should be established, and development or modifications prohibited unless approved by the IFW. No more than fifteen percent of intertidal and submerged lands should be altered by activities such as dredging, filling, or placement of structures or moorings. Increases in water oriented uses, such as marinas and recreational developments, may be allowed if properly designed. Industrial development would probably not be compatible with the wildlife in this area.

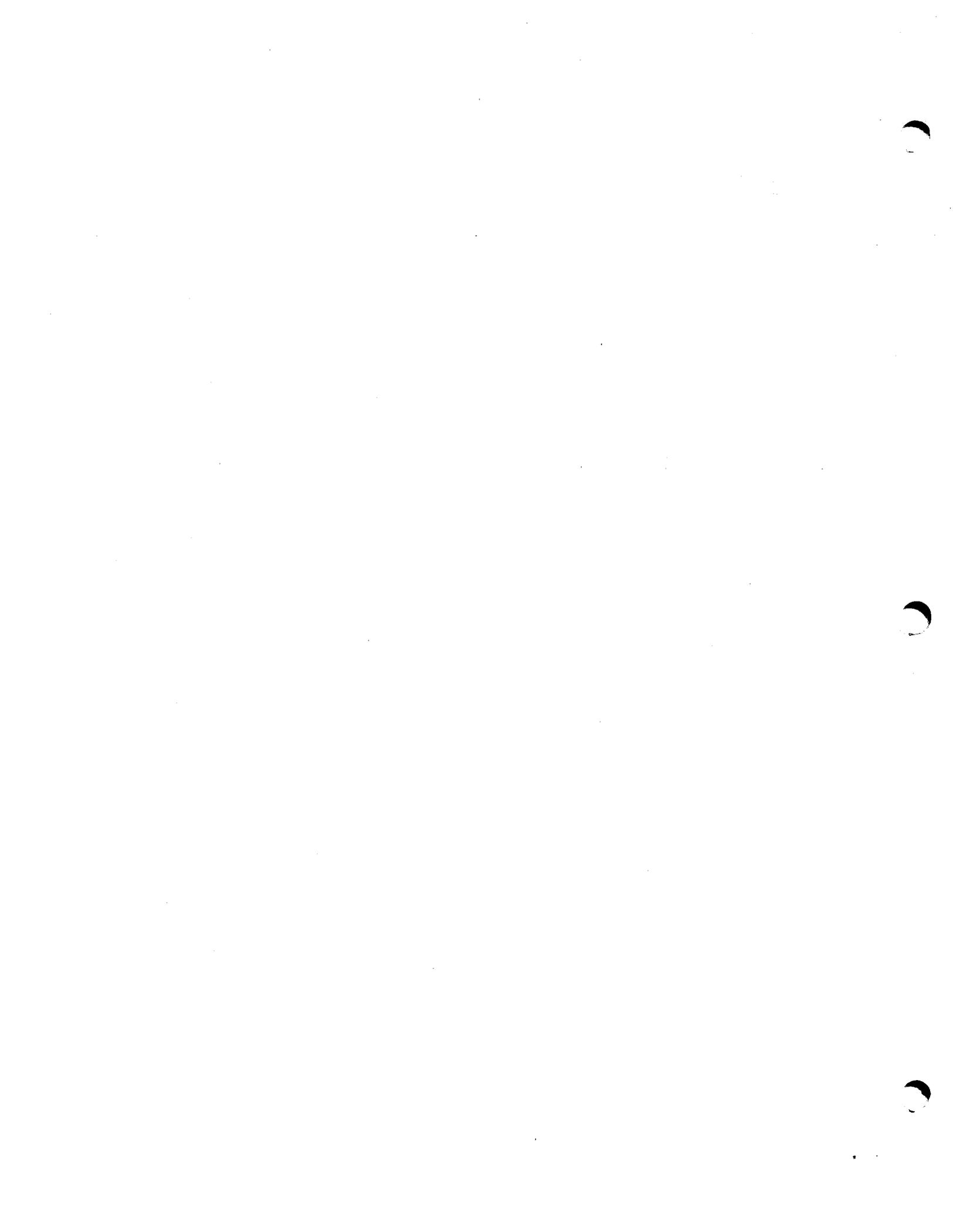
The Salmon Falls River Estuary is listed on the Register of Maine Critical Areas (see Chapter 7 and the references to site #441). The Critical Area includes the area between high and low tide along the east shore of the Salmon Falls River from Hamilton Brook south approximately 4,000 feet to the southern boundary of the state-owned Vaughn Woods Memorial. The Town Planner is currently working with the Great Works Regional Land Trust to establish a greenbelt along this largely undeveloped area.

## PLANNING CONSIDERATIONS

1. Threats to Natural Resources. Despite the high rate of development in South Berwick, there have been very few threats to the Town's natural resources. In fact, the greatest danger lies in the potential for harm if development continues at current levels and adequate controls are not put in place to protect certain resources.
2. Protection Through Existing Regulations. The Town's Zoning Ordinance and Subdivision Ordinance contain a number of provisions which protect some of the Town's natural resources. Flood-plains have been zoned Resource Protection, and wetlands of more than 2 acres are protected from filling. The Town's Ordinances also protect poorly drained soils, rivers, brooks and streams.
3. Unprotected Resources. Resources which are not specifically protected by municipal ordinance include wildlife habitat, rare and endangered species locations, ground water, watersheds, scenic vistas, or other notable Town features. The Town's clustering provisions may preserve some of these areas. However, there is no protection from development activities that take place outside the Town's development review process.
4. Suitability of Wetlands for Development. Wetlands are generally not suitable for development, including the construction of structures, roads and individual septic systems. The dredging and filling of wetlands required for most development can harm the wetland environment, threaten water quality and reduce water storage capacity, thereby increasing the potential for flooding. Septic systems are likely to malfunction and contaminate surface water and groundwater.
5. Wetlands Identification. More accurate identification of wetlands and their boundaries may be necessary if South Berwick decides to enact and enforce regulations to protect wetlands. Existing wetland inventories conducted by the U.S. Fish and Wildlife Service, Maine Inland Fisheries and Wildlife and Maine Geological Survey are generalized and do not show exact boundaries or very small wetlands. These inventories are helpful for general planning, but may need to be refined through field surveys for regulatory purposes. Finally, 2-acre wetlands have not been identified in South Berwick.

## PLANNING CONSIDERATIONS

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## SECTION 5. TRANSPORTATION

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### INTRODUCTION

An analysis of the transportation system constitutes a very important component of the planning process. The transportation network and the accessibility it provides is one of the primary determinants of the pattern of development within South Berwick. The system must provide access to areas outside as well as within. It must tie together the various facilities and uses and must remain efficient and functional to ensure the continued well being of the community.

South Berwick's transportation policies, such as those which might be incorporated into land use regulations and a capital improvements program, can help assure that future development does not increase traffic congestion or overtax existing roadways. Such policies can seek to assure that the transportation system functions cost effectively at acceptable levels and that development is encouraged in appropriate areas.

### ROAD CLASSIFICATION-MAINTENANCE RESPONSIBILITIES

In the early 1980's, the Maine Legislature authorized and directed the Department of Transportation (MDOT) to classify all public roads throughout the State. The classification system that was established was based on the principle that the roads which serve primarily regional or statewide needs should be the State's responsibility, and roads which serve primarily local needs should be a local responsibility. The State's classification system includes the following:

State Highways are usually arterials and are comprised of a system of connected highways throughout the State which serve arterial or through traffic. The State is responsible for all construction/reconstruction and maintenance on the 5.28 miles of arterial highway in South Berwick. Route 236 (except between Portland and Berwick Streets) and Route 4 are classified as minor arterials. Route 236 between Portland and Berwick Streets (approximately .46 miles in length) is a State Highway classified as a collector. The State is responsible for construction, reconstruction and summer maintenance, and the Town is responsible for winter maintenance on this segment of Route 236.

State Aid Highways are usually collectors and are roads that are not included in the system of State highways, but which serve as feeder routes connecting local service roads to the State highway system. The State is responsible for

construction, reconstruction and summer maintenance of South Berwick's 3.22 miles of State Aid collectors. The Town is responsible for winter maintenance of these roads. State Aid collectors include Route 91, Route 101 and Main Street from Berwick Street to the New Hampshire line.

When South Berwick's population exceeds 6,000, the Town may become responsible for both summer and winter maintenance on State Highways and State Aid Highways within the urban compact area. The State will continue to be responsible for construction and reconstruction on these roads.

Local Roads include all other public roads not included in the State highway or State aid classification system. These roads are maintained entirely by the municipality, and based on the state system, serve primarily as local service roads which provide access to adjacent land. There are approximately 63-65 miles of local roads in South Berwick.

Some local roads may actually be functioning as collectors. Local roads with annual average daily traffic volumes greater than 200 vehicles/day and/or serving more than 25 residences could be considered collectors.

There are a total of nearly 75 miles of roads in the Town of South Berwick.

#### HIGHWAY AND ROAD INVENTORY

Table 5-1 contains a listing of South Berwick's highways and roads by classification with annual average traffic volume, road lengths and widths and other comments. Local roads that may be serving as collectors have been listed separately.

TABLE 5-1

## HIGHWAY AND ROAD INVENTORY

Classification/ Road Name	Annual Average Traffic Volume	Length (miles)	Pavement Width (feet)	Comments
<u>Minor Arterials</u>				
State Route 236 (except between Berwick and Portland Streets)	4030 <sup>3</sup> -14,250 <sup>3</sup>	3.96	24	Section north of Berwick Street should be widened to have 22' pavement and 6' shoulders. Vertical realignment necessary to improve sight distance.
State Route 4	7560 <sup>3</sup> -14,250 <sup>3</sup>	1.32	40-45	
<u>Collectors</u>				
Route 236 (Berwick St. to Portland St.)	2445 <sup>1</sup> -6065 <sup>1</sup>	.46	20-40	Improvements planned for Routes 4/236 inter- section (south end) - left hand turn lanes and possibly signal- ization. Further study of the corridor is proposed.
Route 101	2330 <sup>1</sup> -2453 <sup>1</sup>	.82	20-22	
Route 91	2710 <sup>3</sup>	2.04	20	
Main Street (Berwick St. to Maine/NH line)	1905 <sup>2</sup> -2305 <sup>1</sup>	.36	20	
<u>Local Roads</u>				
Academy Street	500 <sup>1</sup> -885 <sup>1</sup>	1.12	18-20	Three problem inter- sections - at Junior High, Wadleigh/Drury Lane, Rt. 236 Blind intersection Emery's Bridge Road/ Knight's Pond Road
Agamenticus Road	765 <sup>1</sup> -1670 <sup>3</sup>	1.50	22	
Beaver Dam		.74		
Belle Marsh Road	124 <sup>2</sup>	2.27	12-16	Gravel, steep grades Gravel - 1.37 miles, sharp curves
Bennet Lot Road	81 <sup>2</sup>	2.04	13-16	
Birch Drive		.10	14+	
Boyd's Corner Road		2.41	18	
Brattle Street	163 <sup>2</sup>	.76	18-20	
Butler Street	425 <sup>1</sup>	.21	18-20	Two problem inter- sections - Rt. 236/Main St. and Butler Street

Classification/ Road Name	Annual Average Traffic Volume	Length (miles)	Pavement Width (feet)	Comments
Clark's Lane		.15	12	Dead end, serves 4 houses, no turnaround
Colcord St.		.09	18-20	
Cotton Tail Path		.06		
Crescent Ct.		.11	30-33	
Dawson Avenue	75 <sup>1</sup>	.24	16-20	
Dawson Ave Ext.		.12		
Drury Lane		.05	14-16.6	Poor sight distance at Academy St. intersection
Earle's Road		.64	11-13	Part gravel - .4 miles
Emery's Bridge Road	111 <sup>1</sup> -890 <sup>3</sup>	5.80		
Fife's Lane		.82	16-18	Old Fields Road intersection - bad sight distance
Finson Road		.46	15-17	
Flynn's Lane	166 <sup>2</sup>	.51	15-16	
Front Street	250 <sup>1</sup>	.16	18-20	
Front St. Ext.		.22		Gravel
Garland Street		.04	10-12	Serves 4 houses
Goodwin Street	315 <sup>1</sup> -680 <sup>1</sup>	.21	18-20	
Grant Street		.10	15-16	
Great Hill Road		.64		Gravel, Seasonal
Great Works Drive		.15	30	
High Knoll Drive		.46		
High Street	280 <sup>1</sup>	.15	18-20	
Highland Avenue	200 <sup>1</sup> -325 <sup>1</sup>	.28	18	
Hill Drive		.15	16-18	
Hooper Sands Rd.		1.73	16-18	
Jewett Avenue	155 <sup>1</sup>	.14	15-19	
Junction Road	40 <sup>3</sup>	100	13-15	Gravel .75 miles
Knight's Pond Road	280 <sup>3</sup> -690 <sup>3</sup>	2.75		
Liberty Street	375 <sup>1</sup> -465 <sup>1</sup>	.46	18	
Linscott Road		.16	12-16	Gravel, low volume
Lord's Lane	229 <sup>2</sup>	.49	15-16	Low volume
Middle Street		.08	16	Dead end, serves 4 houses
Mill Stream Lane		.21		
Monument Square (Intersection Link)	750 <sup>1</sup>			
Mountain Road		1.22	12-18	Gravel .81 miles, steep grades, low volume (seasonal)
Neally Street	150 <sup>1</sup>	.11	16	
Norton Street	950 <sup>1</sup> -1805 <sup>1</sup>	.32	18-20	
Ogunquit Road		2.27	18-20	Gravel, limited sight distances (seasonal - 1 mile)
Old County Road		.63	12	Gravel, limited sight distances, low volume

Classification/ Road Name	Annual Average Traffic Volume	Length (miles)	Pavement Width (feet)	Comments
Oldfields Road	337 <sup>2</sup>	2.7		
Old Gray's Bridge		.13		
Old Mill Road		.46	17-20	Route 236, intersection poor
Old South Road	400 <sup>3</sup>	.97	17-18	
Parent Street		.13	16-20	
Park Street		.08	16-19	
Paul Street	380 <sup>1</sup>	.19	17	Steep grade at Highland Ave
Pine Street		.34	17-20	
Pleasant Street	145 <sup>1</sup>	.17	16	
Pond Road		1.59	15-16	
Quarry Drive		.70		
Railroad Avenue	35 <sup>1</sup> -770 <sup>1</sup>	.25	18-20	
Rodier Road		1.05	16-18	
Ross Street		.14	15-16	
Sewall Road	230 <sup>1</sup>	.14	16-18	
Sewall Rd. Ext.		.03	12-14	Low volume, serves 3 houses
Spillane's Hill		.11	12-14	Dead end, no turnaround
Spring Street		.13	15-16	
Stevens Ext.		.10	12-14	Dead end, no turnaround
Steve Harvey Rd.		.72		
Thurrell Road		1.72	14-23	
Tibbetts Street	85 <sup>1</sup>	.14	15-18	Berwick Rd. intersec- tion, sight distance poor
Tufts Road		.21	14-16	Gravel
Union Street	315 <sup>1</sup>	.19	15-17	Steep grades
Vaughn's Lane		.35	10-11	Serves 4 houses
Vine Street	421 <sup>2</sup> -630 <sup>1</sup>	.97	18-19	Steep grades, site distance problems
Wadleigh Drive		.15	15-18	Steep grade
Wadleigh Lane		.40	10-14	
Waterside Lane	178 <sup>2</sup>	.55	16-18	
Webster Street		.05	15	Main St. intersection radii needs improvement
Witchtrot Road	286 <sup>2</sup> -446 <sup>2</sup>	2.69	16-22	Sight distance problems
Young Street	195 <sup>1</sup> -360 <sup>1</sup>	.30	15-16	Dead end road
Wild Rose Lane		2.46		Gravel

Notes: Annual Average Traffic Volumes are from several years.

<sup>1</sup> 1980

<sup>2</sup> 1981

<sup>3</sup> 1987

Source: South Berwick Road Inventory, 1985.

## ACCIDENT LOCATIONS

The following table is a summary of major accident locations during 1987 and 1988.

TABLE 5-2

### MAJOR ACCIDENT LOCATIONS

<u>STREETS</u>	<u>1987 ACCIDENTS</u>	<u>1988 ACCIDENTS</u>
Academy Street	4	4
Agamenticus Road	4	3
Belle Marsh Road	4	2
Emery's Bridge Road	3	5
Knights Pond Road	3	3
Main Street	32	31
Oldfields Road	2	4
Portland Street	13	5
Route 91	17	8
Route 101	5	4
Route 236	13	19

Source: Town of South Berwick Accident Report, May 3, 1989

## FUTURE ROAD IMPROVEMENTS

An inventory of the Town's roads was completed in 1985. This inventory was general in nature and did not address future land use, existing traffic, and make recommendations on roadway repair. Over the past two years, the Town has begun to "shim" a number of roads in Town. Plans to upgrade other roads are mainly contingent upon the schedules of the separate Water and Sewer Districts, and their plans to upgrade their lines. There are no immediate plans to reconstruct or improve any other roads, and at this time the Town plans to continue with its "shim" work.

REGIONAL TRANSPORTATION CONCERNS

South Berwick along with the Towns of Kittery, Eliot, Berwick and Lebanon comprise the Kittery Area Comprehensive Transportation Study (KACTS) area. The KACTS organization which includes the Southern Maine Regional Planning Commission (SMRPC) and the Maine Department of Transportation (MDOT), is responsible for assuring that various transportation projects are consistent with the area's overall development policies and are coordinated with one another to provide an efficient and cost-effective transportation system.

A number of studies have been conducted by KACTS, MDOT and others on the Route 236 and Route 236/4 corridors. Both Route 236 and Route 4 are arterials that serve regional transportation needs. These studies have included:

- Kittery Area Comprehensive Transportation Study, KACTS and MDOT, April 1988
- State Route 236 Level of Service Analysis, MDOT, February, 1989
- South Berwick By-Pass Feasibility Study (draft), MDOT, March, 1989
- Powderhouse Hill Land Use Study, T.Y. Linn, 1986

The following tables 5-3, 5-4 and 5-5 are excerpted from several of these studies to provide information on traffic volumes and accidents on these routes.

TABLE 5-3

KACTS SURVEILLANCE PROGRAM IN SOUTH BERWICK  
TRAFFIC SURVEILLANCE COUNT COMPARISONS

LOCATION	1975 AADT	1981 AADT	1983 AADT	1985 AADT	1987 AADT	Actual Growth Rates			
						1975-87	1981-87	1983-87	1985-87
SR 236 @ Great Works River	3215	6300*	7675	9070	10330	18.4	10.7	8.6	6.9
SR 4 @ NH line	5100	5605	6690	7205	7610	4.1	6.0	3.4	2.8
SR 4 @ Berwick line	3470	4575	5270	6565	7560	9.8	10.9	11.1	7.6
SR 236 @ Berwick line	1995	2655	3500	3780	4030	8.5	8.6	3.8	3.3

\* Estimate

Source: KACTS and MDOT, Kittery Area Comprehensive Transportation Study

TABLE 5-4

ACCIDENTS IN THE KACTS AREA WITH CRF GREATER  
THAN 1 AND MORE THAN 8 ACCIDENTS FOR 1984-86

LOCATION	Number of Accidents	CRF*
Intersection of Portland and Main Streets	11	1.44
Main Street from Portland north .08 miles	9	3.00
Main Street between Portland and Academy	9	1.95
Intersection of Maine and 236	9	1.25

\* NOTE: Critical Rate Factor (CRF) is a comparison of the actual accident rate to the expected accident rate based on road type, vehicle miles traveled and statewide average accident ratio. A CRF greater than 1 indicates an accident rate higher than should be expected at that location based on statewide data.

Source: KACTS and MDOT, Kittery Area Comprehensive Transportation Study.

TABLE 5-5

TRAFFIC VOLUMES AND LEVEL OF SERVICE  
FOR FOUR SEGMENTS OF ROUTE 236

Study Segment	1975 AADT	1980 AADT	1987 AADT	Growth Rate (%)	Level of Service
Route 103 (Eliot) to Route 91	3,543	-	8,700	12.1	D
Route 91 to Rte 4	4,850	6,700	10,200	9.2	D
Route 4 to Main/ Berwick Streets		9,580	14,250	6.9	B
Main/Berwick Sts. to #687 (Berwick)	1,995		4,030	8.5	D

Notes:

<sup>1</sup> Level of Service (LOS) "A" represents free flow conditions while LOS "F" represents forced flow traffic conditions or "breakdown" conditions. In general, LOS "D" is the minimum acceptable level of service on an urban roadway while LOS "E" would define a deficiency. For rural locations, LOS "C" is the minimum acceptable level of service and LOS "D" would define a deficiency.

<sup>2</sup> LOS based on average speed of 24.2 miles per hour. This rating does not take into consideration LOS at intersections, which are the bottlenecks in this segment.

Source: MDOT, "State Route 236 Level of Service Analysis", February 1989.

The KACTS Transportation Plan (April 1988) made a number of recommendations for improvement to South Berwick's major corridors. Those recommendations with a comment on their current status are listed below:

1. Main Street at Berwick Street and Butler Street

The unusual configuration of the intersection and the failure of motorists to yield on Main Street contribute to the accidents. An immediate improvement can be accomplished with changes in the traffic control. If Berwick Street or Main Street is reconstructed to urban design standards, the intersection should be redesigned.

Status: Improvements never made.

2. Portland Street at Agamenticus Road

Although the intersection is well designed, signed, and lit, 6 accidents occurred between 1981 and 1983 with CRF of 1.24. Between 1984 and 1986 there were 9 accidents with CRF of 1.25. Of the 6 accidents between 1981 and 1983, 4 occurred at night. The intersection should be better defined at night; a type 1 object marker could be installed at the head of the channelization island facing north-bound traffic on Portland Street.

Status: Improvements never made.

3. Main Street at Portland Street

The intersection has been analyzed to operate a level of service E in the peak periods and the hourly traffic volumes at Main and Portland are high enough to warrant traffic signals. Signalization of the intersection is recommended. Properly designed and timed traffic signals will allow approaches to operate a level of Service A. During the evening and early morning the traffic signals can operate in the flashing mode.

Status: Local match was not approved due to citizen opposition. LACTS is planning further study of the intersection and adjacent corridor.

As a part of the Powderhouse Hill Land Use Study traffic was analyzed at two Main Street intersections at Portland Street to the north and Agamenticus Road to the south. The Consultant analysis produced on A.M. and P.M. level of Service of F at the Portland Street intersection and a Level of Service E in the A.M. at the Agamenticus intersection. The traffic signal proposed above would have addressed the LOS at Portland Street.

4. Route 4/236 Bypass

The Powderhouse Hill Land Use Study estimated that between 3000 and 3300 vehicles daily would be diverted to a Route 4/236 bypass of Main Street in 1986. The bypass would reduce the A.M. and P.M. peak hour traffic on Main Street by 25% and improve the level of service at Portland Street and Agamenticus Street, except the level of service during the P.M. peak at Portland Street would still be LOS E.

The "South Berwick By-Pass Feasibility Study" was completed by MDOT in March of 1989. The benefit/cost analysis indicated that the bypass is not currently economically justified. (Traffic volumes are currently not high enough to justify constructing the bypass). Additional studies will be necessary to determine its feasibility when there is sufficient development to require a downtown bypass.

## PARKING

The parking facilities within the village portion of South Berwick consist of on-street parking spaces and a small municipal parking lot at the Town Hall. The municipal lot was recently paved and contains approximately 53 spaces. Due to the distance from downtown shopping facilities, the parking lot is seldom used by downtown shoppers.

On-street parking, which is located along narrow streets and main streets in the downtown, contributes to traffic congestion during rush hours. In the past, there have been several proposals to better manage traffic flow in the downtown and reduce congestion.

1. The Maine Department of Transportation proposed traffic signal and intersection improvements to increase traffic flow at the Main Street and Portland Street intersection. The proposal was rejected because it involved eliminating on-street parking, and that generated strong public opposition.
2. A 1985 Planning Board study included a survey of merchants, who reported that parking was a problem during peak hours, and a series of recommendations. The recommended changes were not fully implemented because of public opposition.
3. In January of 1987, the Police Chief conducted a parking study that examined eight streets for emergency access, parking hazards and sight distance hazards. Included in this study were the following streets: Grant, Neally, Sewall, Parent, High, Tibbetts, Young, Butler and Webster. Recommendations for these streets as well as Main, Portland, Academy, Union and Berwick Streets were made. The Council tabled action indefinitely following a public hearing on the recommendations, at which there was strong public opposition to the recommendations which involved eliminating parking.

Merchants and shoppers perceive that there is a serious parking shortage in the downtown, and it is this perception that has led to strong public opposition to traffic management improvements that would have eliminated or reduced on-street parking.

Given the fact that the amount of traffic flowing through the downtown will continue to grow as the population in the region increases, steps will eventually have to be taken to reduce congestion. One solution may be to consider a one-way street system in the downtown. Another may be to establish an off-street parking lot in a convenient location. By addressing the perceived parking shortage directly, the public may more readily accept the elimination of parking as a viable means of improving downtown traffic flow.

## PEDESTRIAN WAYS

Pedestrian ways in South Berwick consist primarily of sidewalks that line the streets in the downtown, some residential streets in the older portions of the village, and most streets within newer residential areas. The Town's subdivision ordinance requires sidewalks in all subdivisions. The Planning Board has also worked with developers to make provisions for hiking paths along waterbodies that might eventually become part of a large trail system.

In some instances, sidewalks have been built along streets in older residential areas as a part of underground utility work. This sometimes results in a narrower street and added safety concerns.

## RAIL TRANSPORTATION

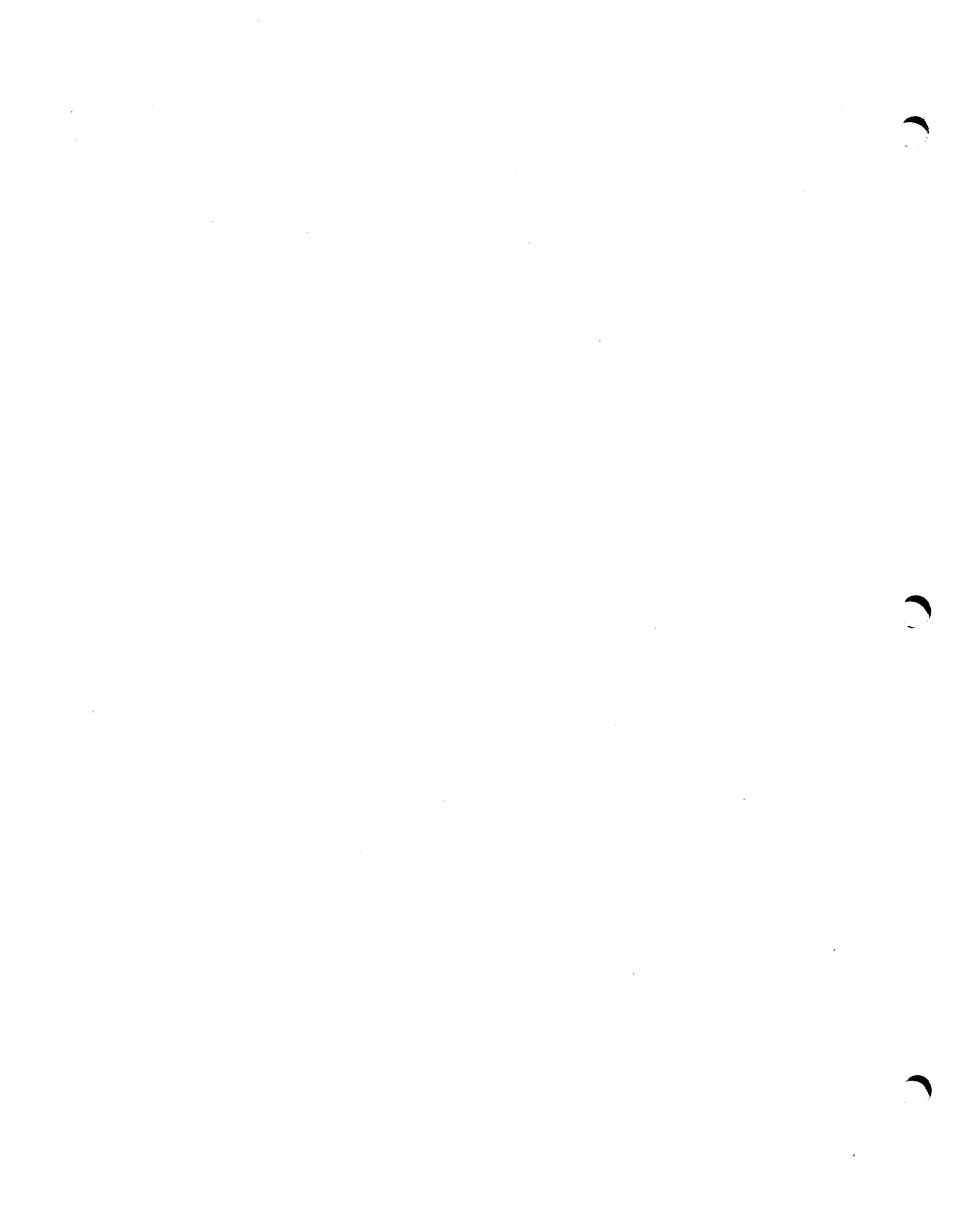
Guilford Transportation Industries Boston and Maine Branch (operated by Springfield Terminal Company) runs in a southwesterly-northeasterly direction along South Berwick's northwesterly boundary. This is a main trunk line serving the northeast that extends between Dover, New Hampshire and Portland, Maine.

Despite the decline in freight volumes over the years, railroads continue to be the principal carriers of paper, pulp, lumber and wood. State policy makers have generally felt that railroads are important to the State's economy and are looking for ways to maintain the viability of the railroads. The proximity of the Boston and Maine Branch to South Berwick may have significant implications for future economic development of the Town. This is particularly true if a viable passenger train service is established between Boston and the South Berwick area. A passenger train could provide direct service to either Dover or Berwick.

## PLANNING CONSIDERATIONS

1. Regional Concerns. Route 236/4 is a major artery serving not just South Berwick but the entire region. As such, congestion and a growing traffic load impact all the communities which it serves. Construction of the bypass would alleviate many of the problems, but State action does not appear likely in the foreseeable future. However, Town action is needed to ensure that development does not destroy the integrity of the proposed bypass route.
2. Town Road Improvements. A major investment will be needed to improve the quality of the Town's road network. As a first, necessary step to make this investment, South Berwick will need to conduct a comprehensive inventory and develop a long-range plan for capital improvements.

3. Future Downtown Development. While regional policies encourage towns to focus future development in downtown and village areas, this policy is not workable for South Berwick, primarily because of downtown traffic congestion (most of which is passing through South Berwick).



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## SECTION 6. PUBLIC FACILITIES AND SERVICE

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### WATER SUPPLY

The village area of South Berwick, comprising approximately 10% of the land area of the community, is served by a public water supply system owned and operated by the South Berwick Water District. Map 6-1 shows the service area of the system. This system serves approximately 50% of the Town's population. In 1989, the District completed a Water System Improvement Plan. Much of the information contained in this discussion is based on the material contained in the Plan.

### SOUTH BERWICK WATER DISTRICT

The South Berwick Water District is a quasi-municipal corporation which was established in 1960, after which it acquired the assets of the South Berwick Water Company and two smaller water companies. The District is operated by a 5-member board of trustees who are elected by district members at the annual meeting. The District has four full-time employees, an operations superintendent, an office manager, a clerical employee, and a laborer.

As of May, 1989, the District served 1,106 accounts, including 998 residential customers, 5 government users, 65 commercial accounts, and 2 non-metered customers. Since some of the residential accounts are multi-family dwellings, the actual number of dwellings served is about 10% greater, or approximately 1,100.

The District's user rate structure has been increased 150% over its 1979 level in order to provide the annual revenue needed for debt service and bond issue retirement. Fire hydrant rentals to the Town provide approximately 15.7% of the District's operating revenue.

In 1982, the District spent approximately \$ 1.6 million in extensive renovations and improvements to the entire system, including the replacement of over 7,500 feet of line, the reconstruction of the Agamenticus pump station, and the expansion of the water reservoir. More recent improvements include the replacement of 4,500 feet of line in 1984-85, and the construction of a third pumping station at the Willow Drive site.

The District's service jurisdiction is shown on Map 6-1.

## SOURCE

The Water District's source of supply is ground water, which is obtained from three separate areas, all within the same aquifer, as follows:

### 1. The Agamenticus Supply

The Agamenticus supply consists of seven well points, a drilled well, and a 12-inch gravel well. The Agamenticus supply was established in 1938, and is the oldest of the three sources. In 1989, the well points provided 25,446,130 gallons, or 27.2% of the total system supply. The drilled well is used only during periods of peak demand because of poor quality (iron and manganese). The gravel well was out of service during 1988, but is now back on line. The District owns very little land around the supply station. The station was refurbished in 1984.

### 2. The Blackmore Supply

The Blackmore supply, which was established in 1961, consists of three drilled wells located near Driscoll Brook in the Town of Berwick. In 1989, these wells provided 21,831,930 gallons, or 23.3% of the water used by the District. The District owns approximately 22 acres around the wells. The water treatment equipment, the pipes, and the station are in very poor condition. There are two gravel packed wells adjacent to Driscoll Brook in Berwick which are no longer used due to high concentrations of iron and manganese.

### 3. The Willow Drive Supply

This supply, which is located near the Agamenticus Estates development off Willow Drive, was established with a pump station and well in 1986 to meet the requirements of the development. A second well was added in 1987. In 1989, the wells produced 46,443,200 gallons, or 49.6% of the District's total supply. The District owns approximately 9.5 acres around the wells.

Well tests have not been undertaken to determine the exact yield of the various wells, and whether or not the unused wells at Blackmore could be placed back into service without affecting the active wells.

## WATER QUALITY

The quality of public drinking water supplies is regulated by the Federal Safe Drinking Water Act, and regulations promulgated by the U.S Environmental Protection Agency (EPA), and the Maine Department of Human Services. Water from the Agamenticus site is the only water source that meets all water quality regulations. The other sources contain high concentrations of iron, manganese,

and sodium, and the Willow Drive wells contain small amounts of hydrogen sulfide. None of these chemicals is harmful at the concentrations found in the wells. However, the levels of sodium, iron, and manganese have increased in the Willow Drive wells.

In 1987, an inclusive water sample from the system revealed the presence of radon gas in concentrations of 1,790 to 2,090 picocuries per liter. This is well above the anticipated federal radon gas standards, which will probably be in the range of 300 to 500 picocuries per liter. If and when these standards are implemented, the District may have to provide treatment to remove radon.

#### TREATMENT

The Maine Department of Human Services requires that all new ground water supplies receive chlorination. As a result, the Willow Drive supply is the only source that is treated. Sodium hypochlorite is added as a disinfectant and to oxidize hydrogen sulfide. One of the District's capital investment priorities in the coming years is the installation of filtration equipment for the Willow Drive supply.

Future water treatment to remove manganese, iron and radon will require at least two separate treatment facilities; one for the Blackmore supply, and a second for the Willow Drive supply. The 1989 Plan recommends construction of the Willow Drive facility during the 1990-92 period, and the Blackmore facility during the 1992-93 period.

#### WATER STORAGE

Water is stored in a 1,000,000 gallon, covered, underground reservoir which is divided into two 500,000 gallon, interconnected sections. In 1982, reservoir capacity was doubled and automatic water level controls were installed to reduce pumping costs and eliminate overflow losses. Tank elevation (297.67 feet) provides service pressures which range from 120 pounds per square inch (psi) in low areas and 50 psi in the higher elevations of the service area.

The existing storage tank appears adequate to meet existing and future needs for the next 20 years. There will continue to be sufficient storage to meet two standards: 1) provide two days' supply at the average consumption rate (990,000 gallons by the year 2010); and 2) provide the maximum fire flow during the maximum day demand for the duration of the fire (740,000 gallons by the year 2010). Additional capacity will have to be provided at some point after the 20-year period.

## DISTRIBUTION SYSTEM

The water distribution system consists of 120,712 feet of water line (almost 23 miles), ranging in size from 12-inch trunk lines to 1-inch lines. There are several problems with the distribution system as follows:

### 1. Fire flows

Adequate fire flows cannot be supplied to many areas located in the southern part of the service area where there are old 6-inch mains and several dead-end lines. Areas with inadequate fire flows include Academy Street at Marshwood Junior High School, Akron Street, Old Mill Road, Wadleigh Lane, Vine Street and Brattle Street. To overcome these problems, the 1989 Plan recommends a number of distribution system improvements which are shown in Table 6-1:

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TABLE 6-1  
SUMMARY OF RECOMMENDED DISTRIBUTION  
SYSTEM IMPROVEMENTS 1989 PLAN

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<u>Improvement</u>	<u>Line</u>
1. Cross-country Reservoir to Wadleigh Lane	12"
2. Wadleigh lane Ext. between Wadleigh, Academy	12"
3. Route 236 between Academy and Old Mill Road	8"
4. Old Mill Road between Rt. 236, Vine St.	8"
5. Vine St. between Academy, Liberty	8"
6. Liberty St. between Vine, Pleasant	8"
7. Academy between Union and Route 236	12"
8. Spillane's Hill	8"
9. Akron St.	8"
10. Main St., Park to Liberty	8"
11. Main St., Academy to Sewall	8"
12. Goodwin St.	8"
13. Colcord St.	8"
14. Ross St.	8"
15. Spring St.	8"
18. Grant St.	8"
17. Tibbetts St.	8"
18. Additional hydrants	-

Water District personnel have indicated that items 1, 2, 3, 6 and 18 are high priority capital improvements for the next several years. Item 8 has already been completed.

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2. Quality of lines. Many of the older lines are corroded, which contributes to water quality problems and reduces capacity.

3. Access

Several mains and services run across privately owned land and are thus not easily accessible.

4. Hydrant spacing

Hydrant spacing is inadequate in some areas. Hydrants should be located at street intersections and not over 1,000 feet apart in low demand areas and 500 feet in high demand areas.

5. Poor records

The District does not have good records of the water distribution system. As a result, the location of some of the mains and valves is not known.

#### EXISTING WATER DEMAND

The Town's rapid population growth in the mid-1980's has had an impact on water demand. The District's customers increased from 600 in 1980 to 1100 in 1988, resulting in an 83% increase. In July of 1987, the water supply was strained beyond its limits, a moratorium on outside water use was implemented for a period of several weeks.

The average annual daily demand is now 256,000 gallons per day, and the maximum daily demand is 486,400 gallons per day. For residential users, the average annual per capita consumption is about 58 gallons per day, which is well within the range of 50 to 75 gallons per day for Maine communities. Total per capita consumption is 77.8 gallons per day in 1989.

#### FUTURE WATER DEMAND

There are several areas within the District's service boundaries where the existing distribution system would not be able to supply the required fire flows. These areas include Old Mill Road, Liberty and Vine, and Wadleigh Lane. Additional future development north of Agamenticus Road (outside the District's current service area) could be supplied with adequate domestic and fire flows.

The 1989 Water System Improvement Plan contains an evaluation of future water demand which is based on the following assumptions:

1. The Town's population will grow at a rate of about 50 new residential dwellings per year over the next 20 years.

2. A greater percentage of the projected growth will occur within the service area of the Water District, so that the population of the District will increase from 50% to 63% of the Town's total population.
3. The "saturation" population of the District's service area, based on existing zoning requirements, is about 6,000 people.
4. There will be no significant commercial or industrial development over the next 20 years.

Table 6-2 contains a summary of existing water demand as well as future projections that are based on the above assumptions:

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TABLE 6-2  
WATER USE PROJECTIONS\*

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	<u>1988</u>	<u>2021</u>
Population of District	3,050	5,000
Average Annual Demand	267,000 gpd	495,000 gpd
Maximum Day Demand	521,500 gpd	870,000 gpd

\* The table includes unaccounted-for water, which is approximately 24% of total demand. The Plan recommends that this figure be reduced to 10%

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The District's current water supply does not appear to be adequate to meet projected future demand. However, the system could provide the future maximum day demand during a 19 1/2 hour period if the unused gravel wells at Blackmore and the drilled well at Agamenticus could be used without interfering with the other wells.

#### FUTURE SOURCES

The 1989 Plan recommends that pumping tests be undertaken at each of the well sites to determine whether older, unused wells could be pressed back into service without affecting existing wells, and whether or not new wells could be drilled at the current well sites.

The 1989 Plan recommends that a new source of water supply be developed in 1995. Options for a new source include: adding wells to the existing aquifers; the use of wells in the aquifers

to the north-east and south-east of the downtown; or the use of surface supplies such as the Great Works River or the Salmon Falls River. Unfortunately, both of these water bodies receive upstream domestic and industrial waste, and the small ponds in Town would not yield sufficient quantities of water.

## SEWAGE TREATMENT

### OVERVIEW

South Berwick has a sewage collection and treatment system consisting of gravity sewers and force mains, two pump stations, and a primary treatment plant that came on line in 1965. The collection system runs throughout the urban portion of the community and serves about 45% of the Town's population. The service area and distribution system is shown on Map 6-2.

The system is owned, operated, and maintained by the South Berwick Sewer District, a quasi-municipal authority formed under the provisions of Chapter 226 of the Private and Special Laws of 1964. It is managed by a 5-member Board of Trustees who are elected by District members.

The District has a full-time treatment plant operator, and retains the services of a professional engineer to act as a part-time Administrative Assistant. There is a contract with the South Berwick Town Office for part-time bookkeeping and clerical services. The day-to-day clerical business of the District is conducted from the Town Office by the part-time bookkeeper/clerk; the District does not maintain an office of its own.

Currently, there are about 950 residential and commercial customers, and the District's annual budget is about \$126,000. Residential customers pay \$ 96/year for sewer services. The District's jurisdiction is bounded by the Salmon Falls River, the Great Works River upstream to Junction Road, and by a line running along Junction Road to the South Berwick/Berwick town line.

### COLLECTION SYSTEM

The collection system consists of approximately 16.5 miles of pipe ranging in size from 6 to 15 inches in diameter. All but about 1.7 miles of the system have been constructed since 1964. Approximately 10.5 miles have been constructed since 1979. The distribution lines are generally in good condition.

South Berwick is fortunate in that the sanitary sewer system is completely separate from the Town's storm sewers. Consequently, storm flows do not result in raw sewage overflows at the treatment plant, as is the case in many other communities. In the past, ground water infiltration constituted a significant

percentage of the flow at the treatment plant. Since 1983, the District has undertaken a TV inspection of sewer lines and has chemically sealed many of the pipe joints and manhole covers.

During the 1983-84 period, the sealing program reduced the flow at the treatment plant from about 213,000 GPD (gallons per day) to about 173,000 GPD, a reduction of about 40,000 GPD. At that time, the resultant flow of 173,000 GPD compared with the Water District's pumpage rate of 118,000; infiltration was still a considerable factor in daily treatment plant flow. Since the 1983-84 period, the District has spent about \$ 5,000 to 10,000 per year on line and manhole rehabilitation. Infiltration has continued to be reduced but, due to population increases, the average daily flow has grown to about 300,000 GPD. Recent pipe and manhole rehabilitation efforts may have reduced this figure somewhat, but the exact extent of this reduction will have to be determined by fall flowage rates.

The collection system as a whole has sufficient capacity to handle current flows as well as increases from growth or line extensions for the foreseeable future.

While there are no immediate plans for sewer line extensions, sewer services are needed in several areas. The first area includes an extension along Agamenticus Road from Route 4 to Willow Drive; the second encompasses Old Mill Road, Great Works Drive, and the lower end of Academy Street.

#### TREATMENT PLANT

The South Berwick Sewer District operates a primary treatment plant which discharges treated waste to the Salmon Falls River off Liberty Street. Treatment consists of settling basins and anaerobic sludge digestion.

While the Town's sewage treatment plant was originally designed to handle 500,000 gallons per day, the plant is licensed by the federal EPA to discharge 370,000 GPD. The growth and development of the community has increased the flow at the plant from about 173,000 GPD in 1984 to about 300,000 GPD, or 80% of the plant's capacity. The excess capacity of the plant, which can accommodate about 246 additional dwelling units, would be fully utilized if all of the plans before the Planning Board are approved and result in the construction of dwellings. The capacity of the plant clearly is not sufficient to accommodate the growth of the community for the next 10 years.

Under the 1972 and 1977 amendments to the Federal Water Pollution Act, federal grants were made available to help towns and cities construct secondary wastewater treatment facilities. The federal law establishes standards for effluent discharges, requires licenses for all discharges, and requires secondary treatment unless a waiver is obtained under Section 301(h) of the

law. The law requires states to have a priority system through which construction grants can be administered.

Under Maine law, which mirrors federal law, the Department of Environmental Protection administers construction grants and loan program. Prior to participating in the State program, a municipality must first prepare a "201" facilities plan. The purpose of the plan is to evaluate the community's sewage collection and treatment needs and recommend a plan that best meets those needs. Currently, South Berwick is low on the State's priority list for receiving grant assistance.

In 1981, the District prepared a 201 facilities plan report which recommended the construction of a secondary treatment plant utilizing a rotating biological contactor process facility on the existing wastewater site. The District is in the process of updating the 1981 plan. An activated sludge process is being considered as a possible alternative to the original design. The District has proposed to the State that a low interest loan be provided so the plant could be completed by the end of 1992. Under this proposal, the capacity of the plant would be expanded to about 800,000 to 1,000,000 GPD by upgrading the primary treatment facilities and adding secondary treatment. The cost of the new facilities would be about 2 million dollars.

#### ON-SITE SEWAGE DISPOSAL

Currently, about 55% of South Berwick's population is served by an on-site, subsurface sewage disposal system. While most of the systems serve individual dwelling units, there is a large community system serving about 100 families in Woodland Hills; another system has been proposed to serve about 60 families in the Blueberry Ridge area.

The Woodland Hills system, which was installed in 1980, has failed several times. The Town has recently appropriated \$90,000 to fix the system; property owners will be assessed the costs of rehabilitation.

Throughout the rural areas of South Berwick, there are extensive areas of poorly and very poorly drained soils, including numerous wetlands identified by both the State and Federal governments. These areas limit the extent to which individual septic systems or community systems can safely be installed.

TABLE 6-3

LIST OF UNACCEPTABLE INCINERATOR WASTES

1. Demolition or construction debris from building and roadway projects or locations
2. Liquid wastes or sludges
3. Abandoned or junk vehicles
4. Hazardous waste
5. Dead animals or portions thereof or other pathological wastes
6. Water treatment residues
7. Tree stumps
8. Tannery sludge
9. Discarded white goods such as freezers, refrigerators, washing machines, etc.
10. Waste oil
11. Waste which in the reasonable judgment of the company's weigh station operator based solely upon a visual inspection has a BTU content of less than 4500 BTU's per pound
12. Box springs, bed springs, mattresses
13. Furniture (stuffed chairs, sofas)
14. Fish nets
15. Automobile batteries
16. Wire and cable
17. Carpets, rugs
18. Rope greater than 6 feet
19. Hose greater than 6 feet
20. Wood greater than 24 inches
21. Plywood greater than 24 inches
22. Wire fencing
23. Pesticides and other organic fluids

- WHAT HAPPENED TO REGIONAL STUMP DUMP
2. Transfer Station. South Berwick and North Berwick jointly run a transfer station located in South Berwick. The operation of the station includes a truck which makes four trips per week to MERC. Trash is collected privately or is brought to the transfer station by individuals. White goods and stump debris, including brush, are stored behind it. Demolition debris and business and industrial wastes are not accepted. Scrap lumber is accepted, provided that it is tied in 4-foot bundles.

The Town undertakes a limited separation and recycling program which generates a small amount of money. In addition, recycling also saves transportation costs and tipping fees (MERC's tipping fees are \$ 25.00/ton). This

year's recycling program will generate about 120 tons of glass (\$ 14.00/ton), 2 tons of aluminum beverage containers (17 to 18 cents/pound), and \$ 1,500 to \$1,800 worth of returnable bottles), for a total recycling income to the Town of about \$ 4,000. South Berwick does not separate scrap metal by type, and thus has to pay to have it hauled away. There is currently a market for aluminum and non-ferrous metals such as brass and copper, provided that such metals are separated from other metals. Newspaper and cardboard could be separated, but there is no market for these items at this time.

3. Demolition Debris. Wastes which cannot be burned at the MERC facility, are taken by private parties and individuals to a landfill in Rochester, New Hampshire where there is a fee of \$100/truck. While this facility provides a valuable service, there is no alternate site available to accept such wastes if the Rochester site closes or is required to accept wastes only from New Hampshire communities.
4. Annual Clean-Up Day. In the past, South Berwick has sponsored a clean-up day, during which the Town picks up waste items other than trash from each residence. In past years, this has resulted in about a week's worth of effort for Town crews; during the 1989 clean up, Town crews worked for about three weeks. The increased effort resulted from a larger level of waste and the fact that much of it was not sorted.

#### FUTURE PLANNING - REGIONAL STUMP DUMP

A 1987 Stump/Demolition Disposal Study by the Southern Maine Regional Planning Commission estimated that demolition debris accounts for as much as 15% of a municipality's total waste stream. The same study estimated the establishment of a stump dump or demolition dump in each community could be extremely expensive. Some average costs include \$2,000/acre for clearing; \$ 12/linear foot for access roads; \$5/cubic yard for fill; 5% project cost for erosion control; 25% for engineering; and \$ 10,000 to \$ 30,000 for hydrogeological work. The study concluded that it may be cost effective to develop larger sites since testing and engineering work will be required for any site.

The Southern Maine Regional Planning Commission began working with 5 communities two years ago to plan for and establish a regional facility for the disposal of demolition debris and the recycling of white goods. The 1987 study cited previously was one step in the effort to establish such a facility. SMRPC has recently received a grant from DEP to continue its planning and site development efforts. Twelve towns have just signed a regional demolition debris agreement establishing the Southern Maine Regional Waste Corporation which is aimed at creating at least one location for a demolition debris facility. Under the terms of the agreement, each community must contribute \$15,000 to

match a State grant, and to cover planning, engineering, and landfill start-up costs.

While a site for a regional demolition disposal site has not yet been selected, there have been several engineering studies of potential areas. According to SMRPC's study, potential sites were identified using DEP's regulations, the York County Soil Survey, and aquifer maps prepared by the Maine Geological Survey. Of the twenty soils considered suitable for landfills, only 4 were found in York County, and only two, Becket and Marlow soils, were considered for further study. The remaining soils, Peru and Skerry, were not studied due to time considerations and because site development costs would be considerably greater.

The report concluded that Dayton, York, Kennebunk, Kennebunkport, and Ogunquit had no suitable soils for a stump/demolition debris disposal site. Buxton, Wells, South Berwick and Kittery had limited acreages of suitable soils, while Alfred, Eliot, Berwick, Shapleigh, Acton, Sanford and North Berwick had the largest amount of suitable soil.

SMRPC's report also noted that Consolidated Waste Services (CWS) of Norridgewock is actively considering the development of a privately operated demolition disposal facility that would include a limited recycling component. CWS is currently operating a demolition disposal transfer station for the City of Saco. The report concluded that such a facility would be preferable to a publicly operated facility, but that communities should continue to work together to keep all options open.

#### STATE INITIATIVES

The First Regular Session of the 114th Legislature has just enacted LD 1431, which, if signed by the Governor, will result in comprehensive changes in the way Maine manages its solid waste. The bill, which is over 100 pages in length, will include additional solid waste landfill siting requirements, as well as financial incentives to reduce the volume of solid waste.

#### EMERGENCY SERVICES

##### POLICE SERVICES

Police services in South Berwick are provided on a 24 hour a day basis, with a full-time staff in the Dispatch Center. For fiscal year 1989, the Department was provided with a \$230,000 budget. The Dispatch Center, with a separate budget, was given \$103,000 for the fiscal year.

##### 1. Staffing

The Department employs six full-time persons including the Chief. There is currently no Detective, Juvenile Officer or

Crime Prevention Officer. The Patrolmen must handle their own calls and request for services. The full-time staff is assisted continually by 8 part-time uniformed officers. A request for two full-time officers for 1989 was turned down at Town Meeting.

The Dispatch Center is staffed with 4 full-time and 5 part-time employees. This provides 24 hour a day service. The Dispatch Center also services the Town Fire and Rescue Squads. The South Berwick Dispatch also serves the Berwick Police Department on a part-time basis.

2. Service Level

Based on standards for staffing levels, the South Berwick Police Department is understaffed. Table 6-4 depicts the average Police/Civilian ratio of officers.

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TABLE 6-4  
POLICE STAFFING LEVELS

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Area	Number of Officers per 1,000 Population
Nationally	2.50
State-wide	1.65
York County	1.50
South Berwick	.75

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3. Vehicles

In 1989 the Department acquired a fourth vehicle. The vehicle will be used for transportation and not patrol. The addition of the vehicle was intended to address the increasing amount of time the Town is uncovered because of vehicles being tied up (e.g. in court, training, Department of Motor Vehicles/hearings, etc.)

4. Department Equipment/Office Space

The Department installed a new computer system which automated records and retention. It has assisted in speeding up the process which in turn gives the Department a more efficient system. In the near future, the Department will be faced with the expense of replacing and upgrading the radio system. As technology has changed, the present system is no longer capable of handling Police, Fire and Rescue office needs.

## 5. Crime Index

Overall, the Town recorded an increase in major crime of 51 percent from 1988-1989. The Police Chief has stated the increase is directly related to growth in rural locations.

Offenses comprising the Major Crime Index are shown in Table 6-5.

TABLE 6-5  
SOUTH BERWICK 1988 CRIMES

	Number Reported	Number Cleared	Percent Cleared	Percent Increase/ Decrease
Homicide	0	0	0	N/A
Rape	0	0	0	N/A
Robbery	1	1	100	+100
Aggravated Assault	3	3	100	+150
Burglary	29	16	55	+107
Theft	65	26	40	+ 27
M/V Theft	8	5	62	+166
Arson	0	0	0	N/A
TOTAL	106	51	49%	51%

The State of Maine overall clearance rate was 24 percent in 1989, with South Berwick recording a 38 percent clearance rate.

### FIRE DEPARTMENT

Fire Protection for the Town of South Berwick is provided from one central Fire Station located on Norton Street. The Station is not manned. The Fire Chief is part-time working every other day. There are 6 Officers, 29 Firefighters and 5 Junior Firefighters. The staff is volunteer, with members being paid per call. For fiscal year 1990, the Fire Department budget was about \$70,000.

#### 1. Fire Response

Fire calls are received by the Police Department Dispatch. All Firefighters and Officers have pagers to alert them of a fire call. Upon the alert they must go to the fire station, get in their protective clothing and take the fire trucks to the scene. The average response time from the first alert to

getting a truck on the road is 4 minutes. To respond to the farthest point in Town (Oguinquit Road) might be 20 minutes during good weather. In the winter this response might take 30 minutes. Mutual aid agreements have been reached with Berwick, North Berwick, Eliot, Lebanon, Dover, Somersworth, Rollinsford, Rochester and York Village.

South Berwick has not had many large fires in recent years. The number of calls has dropped from 156 to 125 calls for 1988. This represented a 20 percent decrease from the previous year. The responsibilities of the Fire Department have increased over the last 5 years to include building inspections, subdivision review, lectures on fire safety, increased training, equipment maintenance and testing and improved record keeping.

The Insurance Service Office evaluated the Town of South Berwick in 1977 and gave the Town a rating of 6-9. Many water and fire improvements have been made since then. By 1992 the Town should be evaluated again.

## 2. Equipment

South Berwick has 90 fire hydrants, all located in the village area. Water for the rest of the Town is carried on fire engines - three trucks carry 1,000 gallons each and one carries 500 gallons. The Town purchased a new fire engine in 1988, allowing for 7 firefighters to ride inside.

## 3. Fire Department Issues

As with the Police Department, the Fire Department faces a shortage of space and meeting area. This need will be addressed in the upcoming building plans for the municipality.

The Department also faces problems with day time coverage during fires. Most volunteers work during the day, with many being out of town. Time delays and inadequate personnel coverage is a constant concern. When fires occur in remote portions of town, the time delays are even more problematic.

The Fire Department is encouraging homeowners to install fire alarms in their homes and have these systems connected to the Police dispatch center. This would ensure that even if a fire does occur it will be small enough in nature to create minimal damage before a truck arrives.

## RESCUE SERVICES AND HEALTH CARE

The South Berwick Rescue Squad is an independent, non-profit corporation. The Rescue Squad has two full-time employees. The second full-time employee was recently hired to provide additional coverage during the daytime hours. Volunteers during

these daytime hours have become increasingly hard to find. Besides their regular rescue duties, the two employees provide first aid training to individuals and groups throughout the region.

The Rescue Squad budget is made up primarily of donations. For the fiscal year 1989 the Town of South Berwick contributed \$33,825 to the Rescue Squad. In 1988, the Town contributed \$24,900 or a little less than half of the \$56,257 budget for the year. Membership made up a good portion (\$15,000) of the rest of the budget.

At the present time the Rescue Squad has their own building in the downtown area. It has been proposed that they move in with the Fire and Police in a new public safety building within the next few years. Currently they are hooked into the South Berwick Police dispatch.

The number of calls increased dramatically from 194 in 1987 to 300 in 1988.

Three hospitals service the South Berwick area. The closest is in Dover, New Hampshire (approximately a 10 minute drive). There are also hospitals in York and Portsmouth, New Hampshire.

#### Rescue Squad Issues

The current back-up ambulance is 17 years old and needs to be replaced.

More volunteers are needed as well as more memberships.

#### LIBRARY SERVICES

The current library was organized to provide library services by a group of concerned citizens. It opened in September 1971 operating solely with donated books, workers and space, for 12 hours per week. In March 1972, the Town of South Berwick accepted these existing services as the Town's public library and began financial support. A librarian was hired in 1973. The hours have continued to increase and since 1986, the library has been open 33 hours per week over 6 days.

The Jewett Eastman house has always been the home of the library. When it opened, the house was owned by the Society for the Preservation of New England Antiquities and a nominal rent was paid for use of one of the rooms. When S.P.N.E.A. was about to sell the house, again a group of civic minded residents rallied. The Jewett Eastman Memorial Committee purchased the house in 1984 entirely through voluntary donations. The Town does not contribute financially to the building.

## PUBLIC SCHOOLS

The Towns of South Berwick and Eliot are served by School Administrative District #35 (SAD #35). SAD #35 has experienced significant growth in school enrollments over the past several years which has resulted in a crisis situation with respect to overall school capacity. The District used 10 portable classrooms last year and expects to be using 14 in the upcoming school year. Growth control efforts on the part of both communities have probably lessened potential overcrowding.

### DESCRIPTION OF SCHOOL FACILITIES

SAD #35 operates four schools: Eliot Elementary School, Central Elementary School, Marshwood Junior High School and Marshwood High School. The Central Elementary School and the Marshwood Junior High School are located within South Berwick, while the other two schools are located in the Town of Eliot. Table 6-6 contains information on each of these four facilities.

Capacity and enrollment figures indicate that both elementary schools and the High School are operating beyond capacity. Seven portable classrooms will be used at Central Elementary School, five will be used at the Marshwood High School and two will be used at Eliot Elementary School.

SAD #35 recently had a Facility Planning Study completed for the District. The recommendations of the Study are summarized in Table 6-7. The District has obtained State funds for the construction of a new school in South Berwick for grades K-2. The location of the new school is currently slated to be on Agamenticus Road adjacent to Agamenticus Estates, with construction to start in the spring of 1991. Upon completion of the new school, the Central School will be used for grades 3-6.

TABLE 6-6  
SCHOOL ADMINISTRATIVE DISTRICT #35  
FACILITIES

School	Location	Date Built	Acreage	Grades Housed	Capacity <sup>1</sup>	Current Enrollment	Comments
Eliot Elementary	Eliot Center, Eliot	1940	17	Pre-K to 5	440	583 <sup>2</sup>	Very modest sized future expansion possible.
Central Elementary	Main Street, South Berwick	1924	7	Pre-K to 5	415	623 <sup>3</sup>	State guidelines recommend 9-10 acre parcel for school this size.  Future expansion not recommended.
Marshwood Junior High	Academy Street, South Berwick	1959	14	6 - 8	532	462	State guidelines recommend 20-21 acre parcel for a school this size.  Future expansion not recommended.
Marshwood High	Rte 236/Depot Road, Eliot	1965	30	9 - 12	525-550	623 <sup>4</sup>	Future expansion is possible.

NOTES:

- 1 To fill schools without portables.
- 2 Two portable classrooms planned for Fall, 1989.
- 3 Seven portable classrooms planned for Fall, 1989.
- 4 Five portable classrooms planned for Fall, 1989.

TABLE 6-7

PROPOSED FACILITY EXPANSIONS

School	Grades	Remarks
Eliot Early Childhood Ctr	PK-1	New Facility
So. Berwick Early Childhood Ctr	PK-1	New Facility
Eliot Elementary School	2-5	Existing Facility
Central Elementary School	2-5	Existing Facility
Marshwood Junior High	6-8	Existing Facility
Marshwood High School	9-12	Existing Facility/ with addition

STUDENT PERFORMANCE

Maine Educational Assessment (MEA) scores can be used to measure overall student performance. Table 6-8 displays three year cumulative average scores for all fourth, eighth and eleventh grade students. These scores are based on a scale of 100 to 400. Overall, students of SAD #35 performed as well or better in all subject areas than students statewide.

TABLE 6-8

MAINE EDUCATIONAL ASSESSMENT SCORES  
FOR SAD #35 AND THE STATE  
(Three Year Averages)

Subject	Grade 4		Grade 8		Grade 11	
	SAD #35	State	SAD #35	State	SAD #35	State
Reading	255	245	255	255	315	260
Writing	270	250	250	250	285	250
Math	285	250	300	270	255	255
Science	275	250	275	250	315	255
Social Studies	245	245	275	250	280	250
Humanities	255	255	275	260	315	250

Source: Report for School Administrative Unit #35, School Year 1987-88, Office of the Superintendent of Schools, SAD #35, Eliot, 1988.

## ENROLLMENT PROJECTIONS

Enrollment projections suggest that the District will experience a 15 percent increase in total enrollment between 1988/89 and 1993/94 (see Table 6-9). On average, this would mean the addition of 64 enrollments per year. A closer examination of the figures reveals that the size of the additional enrollment will increase each year. For example, between 1988/89 and 1989/90 enrollment will increase by 15. Between 1992/93 and 1993/94 enrollment will increase by 102.

TABLE 6-9

### PROJECTED ENROLLMENT 1988 - 1999

Year	South Berwick			Total			TOTAL
	K-5*	6-8	9-12	K-5*	6-8	9-12	K - 12
1988/89	541	209	310	1,046	458	652	2,156
1989/90	555	219	290	1,076	471	623	2,170
1990/91	570	257	270	1,101	506	594	2,201
1991/92	616	273	283	1,171	508	603	2,282
1992/93	644	319	283	1,214	550	609	2,373
1993/94	659	353	319	1,225	608	642	2,475
1994/95		371	356		667	664	
1995/96		338	398		645	705	
1996/97		322	452		629	781	
1997/98		356	465		644	829	
1998/99		425	439		718	819	

\* Note: Projections only available to the year 1993/94 due to projection methodology.

Source: New England School Development Council, Sudbury, MA; October 27, 1988.

## PARKS AND RECREATION

South Berwick is changing from rural community with a central village area and residents working nearby, to a more suburban community characterized by increasing residential development and residents who commute longer distances to work in Boston, Portsmouth, Portland, and other urban complexes. At the same

time, increasing family incomes and a growing desire for both active and passive recreational and leisure time activities, have heightened local awareness of, and concern for, the importance of open space and recreational facilities.

Many undeveloped open spaces once used for hiking, hunting, snowmobiling and other outdoor recreational pursuits are becoming less available as residential development occurs and access is otherwise restricted. In addition, South Berwick's growing population and the demand for public park and recreation facilities have created a need to evaluate the adequacy of existing park and open space facilities, and to plan for addressing existing deficiencies and future needs. These pressures have prompted Town officials to prepare a draft Recreation and Conservation Master Plan dated March 1989. The following discussion draws heavily on the material contained in the draft plan, as well as a 1987 report for the Town entitled Open Space and Recreation Standards, which recommended that recreation fees be established for new subdivisions.

#### THE NATURAL ENVIRONMENT

South Berwick's natural environment provides numerous outdoor recreation activities. A partial listing of these resources, and their recreational value, includes the following:

##### 1. Wetlands

Wetlands provide important wildlife habitat, are often critical in supporting a local fishery resource, and are important aesthetically as open space areas. The State has mapped 11 wetlands of 10 acres or more; the U.S. Fish and Wildlife Service has mapped more wetlands in greater detail.

##### 2. Surface water resources

The rivers, brooks and ponds in South Berwick provide opportunities for canoeing, swimming, and fishing. In addition, undeveloped shorelines adjacent to these water bodies provide important travel corridors for wildlife. As a general rule, the shorelines of these water bodies are undeveloped. However, virtually all of the access to these water bodies is privately owned, which limits public recreational opportunities. A brief listing of specific resources and their recreational value includes the following:

- a. Great Works River: canoeing, boating, passive enjoyment of wildlife, undeveloped shorelines (the Town forest borders on the river, but there is no formal boat access).
- b. Cox Pond: fishing

- c. Warren Pond: trout fishing
- d. Round Pond: passive enjoyment of plant community
- e. Whites Marsh Brook: trout fishing
- f. Warren Brook: trout fishing
- g. Hoopers Brook/Hoopers Swamp Brook: trout fishing
- h. Chicks Brook: trout fishing
- i. Ogunquit River: aesthetic enjoyment of remote river;  
trout fishing
- j. Salmon Falls River: scenic vistas, boating, fishing,  
possible shellfish (the Town now has a boat ramp on this  
river).
- k. Leigh's Mill Pond: enjoyment of surrounding historic  
areas
- l. Knights Pond: swimming, fishing

### 3. Scenic Features

The Town's varying topography and hills provide opportunities for scenic views. Undeveloped roadways provide for the passive enjoyment of scenic corridors, characterized by historic structures, open fields and woods.

### 4. Wildlife habitat

There is a diversity of wildlife habitat in Town include fisheries, riparian habitat (land along rivers, brooks), and deer wintering areas.

### 5. Notable features

There are a number of areas which provide passive opportunities for observing the character of South Berwick and viewing geology, and natural and cultural history. Notable areas include the following:

- a. Tatnic Hills: scenic outlooks, hiking, cave exploring
- b. Kenyon Hill/Ogunquit Road Area: hiking
- c. Hussey Brook Area: scenic view of Mount Agamenticus
- d. Emery's Bridge Road/Great Work River area: scenic road;  
swimming

- e. Mountain Road Area: hiking, cross-country skiing, wilderness area
- f. The Sands/Knights Pond area: rental recreation area, dirt bike area, hiking in Town forest
- g. Warren Pond area: remote area with many natural features
- h. Agamenticus Station: hiking, fishing
- i. Whites Marsh Area: hiking
- j. Witchtrot Hill: scenic views
- k. Rocky Hills Area: passive enjoyment of undeveloped area of varied terrain
- l. Old South Road Area: hiking, picnicking

#### PARK AND RECREATION DEPARTMENT

South Berwick's Recreation Department, which has existed for many years, operates a number of recreation programs for the community. Active programs include a summer swim program, a summer day camp, a road race, a senior citizens program, and a winter ski trip. All of these programs are subsidized at least in part by the Town, although fees cover some of the costs associated with the swim program and the summer day camp.

The Department employs a part-time director, who works with a Recreation Commission appointed by the Town Council. The Department's current annual budget is approximately \$ 35,000.

#### PARK AND RECREATION FACILITIES

The Town owns a Town landing/waterfront rest area facility, a boat launching ramp on the Salmon Falls River, as well as a Town forest, a ski area and a number of vacant parcels of land. In addition, South Berwick leases 4 tennis courts from South Berwick Academy. Other public recreational facilities are located at Central School and Marshwood Junior High. Vaughn Woods is a 165 acre State Park located on the banks of the Salmon Falls River. Private facilities include two banquet halls, 4 historic structures, a Little League field, a Rod and Gun Club, a church-owned gymnasium, and Berwick Academy. Recreation facilities are summarized by ownership in Table 6-10, and by type in Table 6-11.

TABLE 6-10

## RECREATION FACILITIES BY OWNERSHIP

Area	Tax Map Lot and Location	Acres	Facilities	Comment
<u>STATE-OWNED FACILITIES</u>				
1. Vacant	1-13 Route 236	7.38	State Highway Dept. property	
2. Vaughn Woods	6-3 Old fields, Road, Salmon Falls River	135	Scenic view, benches, picnic tables, grills, bathroom, trails	
3. Railroad Turntable	Fife's Lane/ Route 236	.25	Vacant	
<u>TOWN-OWNED FACILITIES</u>				
1. Town Landing	15-16 Route 101	2.4	Town landing, water- front rest area	
2. Municipal Building	28-170 Main Street	1.9	1 gymnasium (non- functional), 4 benches, rest area	
3. Vacant	25-31 Liberty Street	.23	Vacant	
4. Vacant	25-5 South Berwick Hydro Co.	4	Vacant	
5. Berwick Academy	26-14B Highland Avenue	?	4 tennis courts playground	Leased land
6. Ski Area	28-105A, 11-24A Agamenticus Road	16	Powder House Ski Hill	Leased to Ski Club
7. Vacant	11-6 Agamenticus Road	.8	Vacant	
8. Town Forest	12-68, 9-28 Off Knights Pond Road	102.5	Forest	

Area	Tax Map Lot and Location	Acres	Facilities	Comment
9. Vacant	3-52 Off Bennett Road	22	Vacant	
10. Vacant	3-39	3.9	Vacant	
11. Agamenticus Estates		5.0	Two ballfields	
12. Boat Ramp				

#### SCHOOL RECREATION FACILITIES

1. Central School	27-83 Main Street	8.4	2 baseball fields 1 football field playground 1 gymnasium 1 basketball hoop	
2. Marshwood Junior High	24-9 Academy Street	13	1 ballfield 1 multi-purpose field 1 gymnasium	

#### PRIVATELY OWNED FACILITIES

1. Rod and Gun Club	1-14 Route 236	46.5	Building and land. Target Range	Owned by Rod and Gun Club
2. Hamilton House	6-2 Vaughn's Lane and Salmon Falls River	35	House tours, garden walk	Owned by Society for Preservation of NE Antiquities
3. Wadleigh Gardens	28-7 Main Street	.11	Banquet Hall	Owned by Tarason Enterprises, Inc.
4. Jewett House	28-78 Portland Street	1.20	House tours	Owned by Society for Preservation of NE Antiquities
5. Jewett- Eastman Memorial	28-78A Portland Street	.46	Library	Jewett-Eastman Memorial Committee, Inc.

Area	Tax Map Lot and Location	Acres	Facilities	Comment
6. Bible Speaks of So. Berwick	28-141 Main Street	5.6	Gymnasium	Owned by Bible Speaks of South Berwick
7. Little League Field	31-132 Norton Street	2	Little League Field	Owned by Duchess Footwear
8. Counting House Meeting Place	25-4 Liberty Street	.09	Building	Owned by Old Berwick Historical Society
9. Berwick Police Academy	26-14, 14A, 14C Academy Street	2	3 multi-purpose fields 2 tennis courts 1 gymnasium 1 banquet hall	Owned by Berwick Academy Trustees
10. Spring Hill Recreation Area	12-47 Knights Pond Road	81	2 banquet rooms Beach Picnic Tables Bath house	Owned by Spring Hill Corp.
11. Federated Church			Meeting area	Serves as Senior Citizens Center
<u>OTHER FACILITIES</u>				
1. Vacant	30-19 Salmon Falls River and Main Street	2.5	Vacant	Owned by Town of Rollinsford

TABLE 6-11

## RECREATION FACILITIES BY TYPE

HISTORIC SITES

Hamilton House	35 acres	Private	House tours, garden walk
Sarah Orne Jewett House	1.2 acres	Private	House tours
Eastman House/Public Lib.	.46 acres	Private	Public Library
Counting House	.09 acres	Private	Meeting place/historic exhibits

BALLFIELDS

Little League Field	2 acres	Private	1 Little League Field
Central School	2 acres	School	2 baseball fields 1 football field
Marshwood Junior High	2 acres	School	1 ballfield 1 multi-purpose field (soccer)
Berwick Academy	2 acres	Private	3 multi-purpose fields (very limited use)

PLAYGROUNDS

Central School		School	968 sq. ft. playground
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TENNIS COURTS

Berwick Academy		Private	2 tennis courts
Berwick Academy		Municipal	4 tennis courts (leased land)

GYMNASIUMS

Central School		School	1 gymnasium
Marshwood Junior High		School	1 gymnasium
The Bible Speaks		Private	1 gymnasium
Berwick Academy		Private	1 gymnasium
Municipal Building		Municipal	1 gymnasium (not functional)

SKIING/SKATING

Powder House Hill	2 acres	Private	Downhill slope/1 lift (hourly capacity - 100 persons)
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BASKETBALL COURTS

Central School		School	1 hoop
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HIKING TRAILS/CROSS COUNTRY TRAILS

Vaughn Woods	165 acres	State	12 picnic tables, 5 trails, grills, outhouses
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REST AREAS/SCENIC PARKS

Town Landing	3 acres	Municipal	Water front rest area
Town Hall	-	Municipal	4 benches/rest area
Vaughn Woods	165 acres	State	Scenic views with benches 12 picnic tables

BANQUET HALLS

Spring Hill	-	Private	2 banquet rooms
Wadleigh Gardens	-	Private	1 banquet hall
Berwick Academy	-	Private	1 banquet hall

BEACH AREAS

Spring Hill	-	Private	Private beach with picnic tables, bath house
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VACANT LAND AVAILABLE FOR RECREATIONAL USE

Agamenticus Estates	38 1/2 acres 9 1/2 acres 17 1/2 acres (stump dump)		
Town Forest	102 acres		
Town Landing	3 acres		
Route 101	3 acres		
Bennett Road - York End	22 acres		
Bennett Road	3.9 acres		
Powder House Hill	14 acres		

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## ADEQUACY OF FACILITIES

From a Statewide perspective, South Berwick is well below average in the amount of land it has set aside for municipal parks, boat sites and historic places. Among the 116 communities in the State with a population of 2500 or more, South Berwick ranks 109th in terms of recreational acreage per 1,000 people. However, Vaughn Woods and the Town forest were not included in the State's calculations. The State mean is 15.34 acres; South Berwick has 2.05 acres (not counting Vaughn Woods or the Town forest). However, improving the acreage of available open space is not as important as improving the quality of available recreation facilities.

One of the methods for analyzing a community's recreation facilities is to compare the inventory of existing facilities to known standards. Table 6-12 contains a comparison of the Town's facilities relative to standards developed by the Maine Bureau of Parks and Recreation and the South Berwick Recreation Commission. The standards of the Recreation Commission are shown in italics. In terms of State standards, the biggest gaps, both in terms of existing and projected deficiencies, are in the areas of basketball courts and playgrounds. Among towns with a population of 2,500, or more, South Berwick ranks 80th out of 95 in terms of basketball courts per 1,000 population; (State mean is .47 acres/1,000, while South Berwick has .23 acres/1,000 population.) In the area of playgrounds, South Berwick ranks 108th out of 113 (the State mean is .59 acres/1,000, South Berwick has .23 acres/1,000). Other deficiencies include a bicycling area, natural ice skating area, a nature study area, a recreation center, a senior citizens center, a public swimming beach, volleyball courts and a golf driving range. In the absence of positive action to provide additional facilities, the deficiencies will become more pronounced as South Berwick grows.

TABLE 6-12

## HOW STATE STANDARDS APPLY TO SOUTH BERWICK

Facility	State Standards by Population/Town	1989 Town Requirements to meet standard	Present Inventory	Additional Needs	
				1989	2000
<i>Italicized items indicate South Berwick's Recreation Commission standards.</i>					
Adult *					
Baseball	1 field/6,000	1	0	1	2
Basketball	1 court/2,000	3	1	2	4
	<i>1/200 students</i>	<i>4</i>	<i>2</i>	<i>1</i>	<i>1</i>
Bicycling	1 route or system/ town	1	0	1	1
Cross country skiing	1 area, system/ town	1	1	0	0
Natural	1 rink/5,000	1	0	1	1
ice skating	<i>1/5,000</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>2</i>
Nature study	1 area/town	1	0	1	1
Picnicking	10 tables/5,000	12 tables	12 tables	0 tables	8 tbls
<i>Picnic/play</i>	<i>1/2,500</i>	<i>2 areas</i>	<i>1 area</i>	<i>1 area</i>	<i>3 areas</i>
Playgrounds	1 playground/2,000	3	1	2	4
	<i>1/200 elem. students</i>	<i>3</i>	<i>1</i>	<i>2</i>	<i>3</i>
Recreation Centers	1 indoor area/10,000 <i>one</i>	1 1	0 0	1 1	1 1
Senior Citizens Center	1 per 10,000	1	0	1	1
Sled and snow play	1 area/town	1	1	0	0
Softball *	1 field/3,000	2	3	0	1
	<i>1/100 students, K-6</i>				
Swimming	1 park or beach/15,000	1	0	1	1

Facility	State Standards by Population/Town	1989 Town Requirements to meet standard	Present Inventory	Additional Needs	
				1989	2000
<i>Swimming facility</i>	<i>1/7,500</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>1</i>
Tennis	1 court/2,000	3	4	0	1
	<i>1/1,500</i>	<i>4</i>	<i>4</i>	<i>0</i>	<i>3</i>
Walking or jogging	1/municipality	1	1	0	0
<i>Volleyball court</i>	<i>1/2,000</i>	<i>3</i>	<i>0</i>	<i>3</i>	<i>5</i>
<i>Driving range</i>	<i>1/7,500</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>1</i>

\* Adult baseball fields have 90 feet between home plate and first base; softball fields usually have 60 feet.

## SUMMARY OF MASTER PLAN RECOMMENDATIONS

South Berwick's Recreation/Conservation Master Plan contains a number of specific recommendations for recreation facilities as follows:

### 1. Playgrounds

Develop a playground on recreational land at Willow Drive, and require that a second be provided in the next subdivision of over 15 lots in the R1 or R2 districts.

### 2. Basketball Courts

Develop two basketball courts on the Willow Drive property.

### 3. Recreation Building

Rehabilitate the barn at the corner of Willow Drive and Agamenticus Road after the Town obtains the deed.

### 4. Adult Sized Ballfield

Develop an adult-size ballfield (90 feet from home plate to first base) at the stump dump at Agamenticus Estates. If this site proves to be unsatisfactory, develop a site in the Agamenticus Estates Willow Drive area. Require that the next subdivision over 20 acres in size provide land suitable for a ballfield.

### 5. Willow Drive Facilities Site Plan.

Develop a site plan showing proposed facilities, and include in the plan the wetland on both sides of Willow Drive and the stump dump.

### 6. Mt. Agamenticus Conservation Plan.

Support efforts to identify and acquire privately owned land in the Mt. Agamenticus conservation boundary area.

### 7. Access to Water Bodies

Work with property owners on Cox, Warren, and Knights Pond to gain easements or public access to the water.

### 8. Management of Existing Town Holdings

Develop and implement a management plan for the establishment of a trail system, picnic area, and other passive recreational uses in the Town forest. Examine other Town holdings for their potential.

9. Acquire Unique Lands

Acquire the waterfall/gorge, the endangered shagbark hickory grove, the balancing rock, and the vista from the granite outlook on Spring Hill.

10. Subdivision Review

At the sketch plan phase, seek recommendations from the Recreation and Conservation Commissions on the type of recreational land that is appropriate for the area and the entity that should be responsible for managing it.

MUNICIPAL BUILDINGS

In March of 1989 the Town of South Berwick commissioned the preparation of a Municipal Buildings Study, which was to be an update of a study done in 1985. This study was then used in the development of the Capital Improvements Plan. The Plan calls for the renovation of the existing Municipal Building, moving the Police Department into a new Public Safety Building (with fire and rescue) on the existing Fire Station lot and adjacent lots, and building a new Town Garage at its existing site with the addition of an adjacent lot. The Capital Improvements Plan also addresses the needs of the Town's transfer station. The Plan is designed to satisfy the Town's building needs for the next ten years. Map 6-3 shows the location of the Town's municipal buildings, as well as other public facilities.

TOWN HALL/POLICE STATION

The current Town Hall, built in the 1920s and formerly the St. Michael's School, was purchased by the Town in 1975. The building is located at 180 Main Street and has two stories and a basement. The basement houses the Police Station (4,600 square feet) and the Recreation Department (approximately 1200 square feet), the Town Hall (municipal offices) occupies 6,300 square feet on the second floor and the third floor is unoccupied.

The major deficiencies of the Town Hall include an inefficient layout, no handicapped accessibility, the need for additional meeting space and insufficient toilet, storage and staff lounge space. The roof and windows must be repaired and improved. In addition, the Police Department does not have adequate space and security is a problem.

The Capital Improvements Plan calls for improvements to the municipal building in 1990 and 1994. The 1990 improvements include repairs to the roof, windows (including the addition of storm windows) and chimney; the addition of an elevator and renovations to the second floor auditorium. Interior renovations

to the Town Offices, including the basement are scheduled for 1994.

#### PUBLIC SAFETY BUILDING

The existing Fire Station is located on Norton Street and consists of a five bay facility. The major problems with the facility include insufficient space for many activities, lack of insulation and an inefficient heating system.

The Capital Improvements Plan proposes construction of a new Public Safety Building at the location of the existing Fire Station in 1993. This facility would house the fire and police stations and rescue squad. Since the facility will require additional space, the Town is scheduled to purchase several adjacent lots in 1992. The Police Department would relocate to the Public Safety Building in 1993.

#### TOWN GARAGE

The existing Town Garage, located on Front Street, is a pre-fabricated metal building built in 1966. The building has a leaky roof, is rusting, lacks adequate space, and is unheated and poorly insulated. The Capital Improvements Plan has scheduled the purchase of adjacent land and the construction of a new Town Garage in 1990. The facility would also include an enclosed sand/salt storage building.

#### TRANSFER STATION

The Capital Improvements Plan estimates that the existing transfer station will become inadequate within five to ten years. The scheduled improvements include: ash pile removal in 1991, a facility redesign study in 1992, transfer station expansion in 1993 and lot redesign and pavement in 1994. The facility redesign study is to assess the present site suitability for expansion, future facility and site needs, and investigate alternative locations.

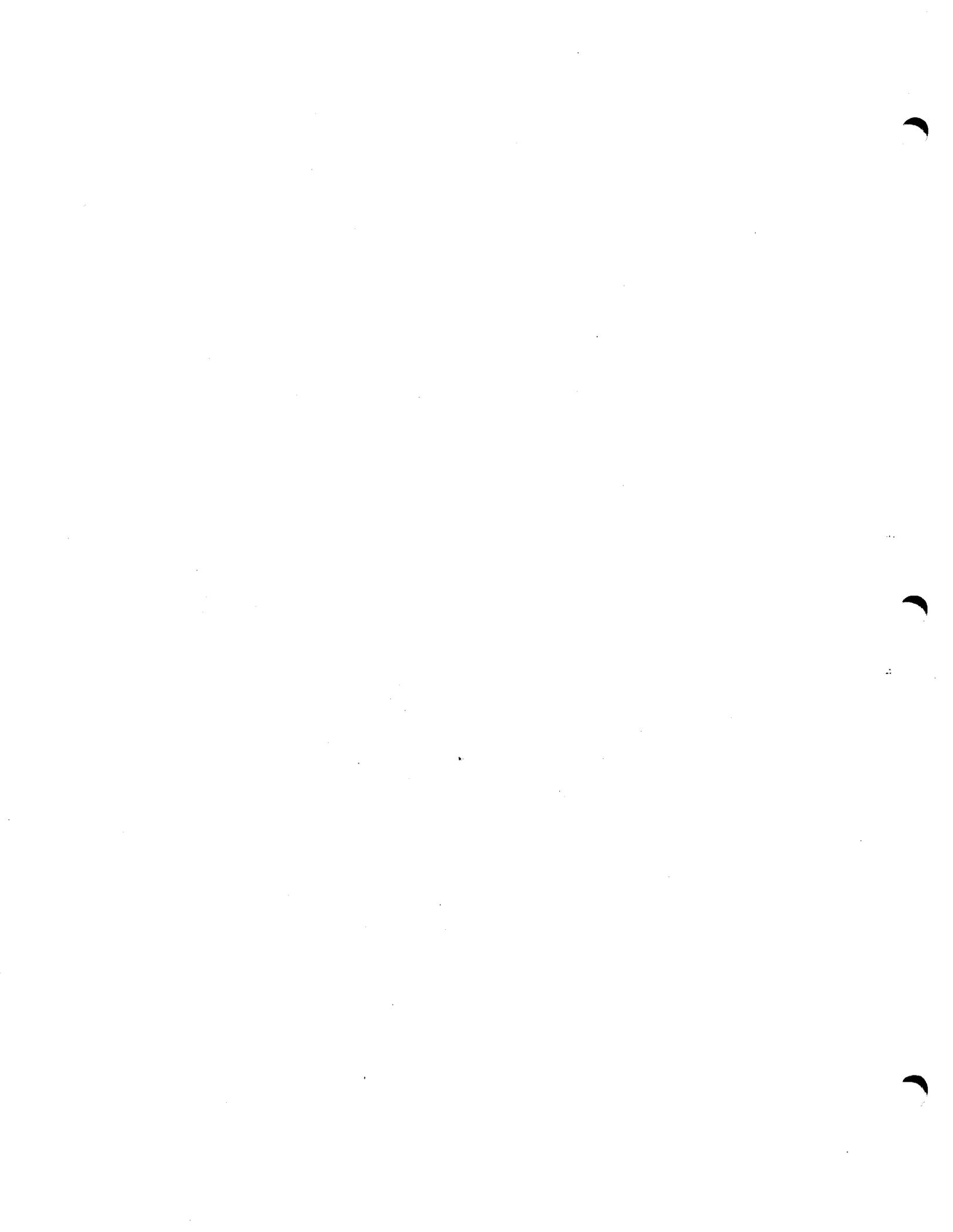
## PLANNING CONSIDERATIONS

1. Water and Sewer Districts. The Town has little control over the Water and Sewer Districts, despite the fact that the decisions of both districts can dramatically affect the way the Town grows. Often, the policies and actions of the districts work at cross purposes to those of the Town. The recent rapid growth in number of customers, the increase in geographic size of both districts, the probability of a continuation of the growth trend, the continuing need to reduce operating costs of government, strongly suggest that the water and sewer operations should be combined and become a department of the municipal government.

Potential operating economies from combining the clerical functions, billing/collection/accounting functions, the daily system operating functions, and coordination of maintenance and systems extensions are likely to be significant if both Water and Sewer services become a department of the municipal government.

The steps required to dissolve a district and add its responsibilities and obligations to the municipal government are not difficult but are numerous and time consuming. Since substantial savings and other benefits can be realized by bring the sewer and water operations into the municipal government structure, steps to accomplish this should be taken without delay.

2. Solid Waste. South Berwick is in the process of complying with State mandates for solid waste recycling and disposal. Since an active effort is underway, it is likely that the Town will continue to accommodate the additional solid waste generated as a result of the Town's future.
3. Emergency Services, Recreation. It is important that the Town take steps to continue to provide services in areas such as police and fire protection, and outdoor recreation. It is important that these services keep pace with the growing population, and that the Town address outstanding deficiencies.
4. Schools. SAD #35 does not appear to be capable of absorbing additional growth in enrollments at this time, and it will be several years before there will be additional school capacity.
5. Capital Improvements Program. South Berwick has an ongoing, capital improvements program. As scheduled in the Plan, construction began in 1990 on the municipal building and a Town garage.



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## SECTION 7. CULTURAL RESOURCES

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### HISTORICAL AND ARCHAEOLOGICAL RESOURCES

Historical and archaeological resources are a part of a community's heritage. They contribute significantly to community character and make each town distinctive and unique. An inventory of historical and archaeological building sites and areas is necessary to understanding the total community environment and to preserving the best of the past.

### ARCHAEOLOGICAL RESOURCES

Archaeological resources include locations where there has been prior presence of human beings including structures, artifacts, terrain features, graphics or remains of plants or animals associated with human habitation. (See Map 7-1.)

By definition, archaeological resources are those below ground. There are two types of archaeological resources: prehistoric and historic. Prehistoric archaeological places are those associated with Indian archaeology and generally date prior to the 1600's and European settlement. Historic archaeological places are those associated with the earliest European settlers.

### PREHISTORIC ARCHAEOLOGICAL RESOURCES

With the exception of the sites of Maine's earliest known inhabitants, Paleoindians - at the end of the last ice age, most prehistoric archaeological sites are found along waterbodies. The remains of Paleoindians are often associated with aeolian (duned) or sandy areas, because these areas made suitable camp sites.

The Maine Historic Preservation Commission (MHPC) has identified one prehistoric site in South Berwick. This site is estimated to be 4,000 to 5,000 years old and is located on the Hamilton House grounds. This site is currently under investigation with the assistance of the Society for the Preservation of New England Antiquities.

The MHPC has also mapped archaeological resource potential areas, which are areas where there is a high probability of encountering a significant archaeological site. The Commission recommends that these areas be surveyed and that there be a review mechanism that requires a field check prior to any ground disturbance and/or construction activity. The South Berwick Historic District Commission is currently in the process of researching these areas with the assistance of the York Institute

Museum in Saco. Some preliminary site digging has been completed at the Rocky Gorge Mill site.

Archaeological resource potential areas are mapped and include the shorelands of the Salmon Falls River, Leighs Mill Pond, the Great Works River up to the Hooper Sands Road, Knights pond and a wetland south of the York Woods Road and extending into Eliot. Aeolian or sand areas include "The Sands" along Hooper Sands Road and an area associated with White Marsh Brook and extending into the Town of York.

#### HISTORICAL ARCHAEOLOGICAL RESOURCES

Historical archaeological resources are sites or areas with evidence of early European habitation generally during the 1600's. Locations which have retained a significant amount of integrity and those of the first or earliest settlers are the most important. South Berwick was the first permanent settlement in Maine and possesses a number of important sites. Generally, these sites or areas are found within 100 feet of navigable water. Navigable waters are those waters to the head-of-tide.

The following is a preliminary list of historical archaeological sites. With the exception of the Jewett House Grounds, which have been surveyed, and the Great Works Mill Site, all the other sites must be researched further to identify their exact locations.

- Great Works Mill Site (1652-69)\*
- Jewett House Grounds (1774 on)
- Miles Thompson House (1656)
- John Heard House (by 1640)
- John Morrell House (1668)
- John Plaisted House (ca. 1690)
- Daniel Goodwin, Sr. House (1654)
- John Lamb House (1656)
- Humphrey Spencer House (pre-1676)
- John Crawford House (1676)
- Roger Plaisted House (1659)
- William Pile/James Smith House (1659/1663)
- Clement Short House (1662-1689)
- Moses Spencer House (1680)

\* Site of first water power in the new world

Another site, locally identified, is the location of the Ambrose Gibbons well, built in 1632. Ambrose Gibbons was the earliest settler and agent for the Council of New England at Old Plymouth, Devonshire, England.

#### HISTORICAL RESOURCES

This category includes historical buildings, structures and objects above the ground. A number of the Town's historical

properties have been identified (see Map 7-1). Several structures are listed on the National Register of Historic Places and numerous other structures have been inventoried to determine their historical significance. An extensive inventory has been completed of the downtown historic district. A detailed survey is currently underway for Liberty Street, and Vine Street is being considered for future work. A reconnaissance level survey of approximately 150 structures was completed several years ago. Several churches, streets with a number of historic buildings and river historical areas have been identified. The Town has recently appropriated funds to complete a survey of all historic properties in Town.

NATIONAL REGISTER PROPERTIES

The National Register of Historic Places, administered by the National Park Service, is a listing of those buildings, districts, structures, objects and sites deemed worthy of preservation for their historical, cultural or archaeological significance. Table 7-1 is a list of places in South Berwick that are on the National Register.

TABLE 7-1

NATIONAL REGISTER HISTORIC PLACES

Place	Location	Date Built	Style
Jonathan Hamilton House	Vaughan's Lane	1700's	Neo-Georgian
Sarah Orne Jewett House	Main Street	1750	Georgian
Jewett Eastman House	Main Street	1850	Greek Revival
Portsmouth Company Cotton Mills Counting House	Liberty Street	1828	Greek Revival (brick)
Berwick Academy Historic District*	Academy Street	1791	
Conway Junction Rail- road Turntable Site	Fife's Lane/ Rte 236	1853	

\* Includes 1791 House, Dunaway (headmaster's) House, Burleigh Davidson House, Fogg Memorial building and the landscaped area down to Academy Street.

Other sites which have been identified for possible listing on the National Register include: the Great Works Mill site, the Mill House (Vine Street), the General Goodwin House (Oldfields Road), the Chadbourne House (Liberty Street), the Balancing Rock and the Ambrose Gibbons Well.

There are several benefits to having a site listed on the National Register of Historic Places. In addition to the prestige of possessing the property, certain buildings may qualify for a 25 percent investment tax credit. To qualify the building must be income producing, depreciable and a "certified" historic structure. Structures on the National Register are also given a limited amount of protection from alteration or demolition resulting from a federal project.

TABLE 7-2

## MAINE NATURAL HERITAGE PROGRAM RARE AND ENDANGERED NATURAL FEATURES, INCLUDING MAINE CRITICAL AREAS

(Note: See Key on pages 7-8 and 7-9 for explanation of table.)

Scientific Name	Common Name	MNHP Rank	Maine Status	Precision	Dot Code from Atlas Maps	Last Seen	Critical Area
Inland New England Acidic Lakeshore/Pondshore	Acidic Pondshore	S3		SC	26-4,5	1985-07-01	N0179
Southern New England Level Bog	Kettlehole Bog	S3		SC	26-8,9	1984-09-23	
Southern New England Rich Mesic Forest	Rich Woods	S1		S	36-6,8	1984-05-15	R0396
Coluber Constrictor	Racer (snake)	S2	E	M	37-20	1984-06-01	
Allium Tricoccum	Wild Leek	S2	WL	SC	36-6,8	1985-06-21	R0396
Asarum Canadense	Wild Ginger	S2	T	M	27-22	1954-05-19	
Aster Divaricatus	Serpentine Aster	S3S4	T	SC	36-6,8	1985	R0396
Aster Subulatus	Small Salt-Marsh Aster	S1	E	M	27-4	1982	R0441
Carex Platyphylla	Broad-Leaved Sedge	S3S4		S	36-6,8	1984-05-15	R0396
Chenopodium Berlanderi Var Boscianum	Goosefoot	S1	E	M	36-25	1898-09-03	
Corallorhiza Odontorhiza	Autumn Coral-Root	S1	E	6*		1895-09-15	
Crassula Aquatica	Pigmyweed	S2	SC	6*		1934	
Ilex Laevigata	Smooth Holly	S2	WL	SC	26-4,5	1985-07-01	N0179
Ilex Laevigata	Smooth Holly	S2	WL	SC	26-8,9	1984-09-23	
Lilaeopsis Chinensis	Lilaeopsis	S1	SC	M	27-4	1979	R0441
Limosella Australis	Mudwort	S2	WL	M	27-4	1982	R0441
Lindera Benzoin	Spicebush	S2	SC	M	27-15	1985-07-10	
Peltandra Virginica	Green Arrow-Arum	S2	SC	SC	26-4,5	1985-07-01	N0179

Scientific Name	Common Name	MNHP Rank	Maine Status	Precision	Dot Code from Atlas Maps	Last Seen	Critical Area
<i>Peltandra Virginica</i>	Green Arrow-Arum	S2	SC	SC	26-8,9	1984-09-23	
<i>Plantanthera Flava</i>	Pale Green Orchis	S2S3	SC	SC	37-4	1987-07-09	
<i>Plantanthera Flava</i>	Pale Green Orchis	S2S3	SC	SC	37-5	1987-08-27	
<i>Quercus Coccinea</i>	Scarlet Oak	SH	SCPE	G*		1896-06	
<i>Samolus Valerandi</i> SSP <i>Parviflorus</i>	Water Pimpernel	S2	WL	M	27-4	1982-08-27	R0441
<i>Sassafras Albidum</i>	Sassafras	S2	SC	SC	26-4,5	1985-07-01	N0179
<i>Saxifraga Pensylvanica</i>	Swamp Saxifrage	S2	T	SC	36-7	1984-05-15	R0396
<i>Saxifraga Pensylvanica</i>	Swamp Saxifrage	S2	T	M	27-11	1985-08-04	
<i>Spiranthes Lucida</i>	Shining Ladies'- Tresses	S2	T	MO	26-36	1935-06-10	
<i>Thalictrum Thalictroides</i>	Windflower	SX	SCPE	G		1898	
<i>Zannichellia Palustris</i>	Horned Pondweed	S2	SC	M	27-4	1982	R0441
<i>Sedum Ternatum</i>	-	-	-	M	36-17	1985	
<i>Sphenopholis Obtusata</i>	Prairie Wedgegrass	SH	SCPE	M	36-21	1896	

\*/G = General record for the town; exact location not known, nor obtainable from the historic record;  
 'G' occurrence not mapped on Atlas map.

KEY:

MNHP Rank - Maine Natural Heritage Program Rank

S1 = Critically imperiled in Maine because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the state.

S2 = Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 = Rare in Maine (on the order of 20+ occurrences).

S4 = Apparently secure in Maine.

SH = Occurred historically in Maine with the expectation that it may be rediscovered.

SX = Apparently extirpated in Maine.

MAINE STATUS: Plants

E = Endangered - represented in Maine by one documented, recent occurrence or Federally Endangered.

T = Threatened - represented in Maine by two to four documented, recent occurrences or Federally Threatened.

SC = Special Concern - represented in Maine by five to 10 documented, recent occurrences and could within the foreseeable future become Threatened.

SC-PE = Special Concern-possibly extirpated - has not been documented recently (represented by zero recent occurrences).

WL = Watch List - represented in Maine by more than 10 documented recent occurrences but is of concern.

MAINE STATUS: Animals

E = Endangered - In immediate danger of extirpation from Maine due to critically low or declining numbers brought about by habitat loss or degradation, overexploitation, pollution, disease or other factors. Continued survival of these species within Maine is unlikely without special protective measures.

PRECISION: The accuracy to which the occurrence can be mapped:

S/SC = Exact location of occurrence is known

M = Approximate location is known (3/4 mi. radius)

G = General; documented in town, but location is unknown (not mapped).

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## SCENIC RESOURCES

Scenic resources are those natural or man-made features that are considered aesthetically appealing to a majority of people and that make a community a visually pleasing place to live. South Berwick's river corridors, pastoral open space and historic buildings are all resources that contribute to the scenic quality of the community.

Since certain activities can greatly alter a landscape, scenic resources cannot be taken for granted. Protection of these resources must involve identification and evaluation of those features considered scenic and public action to prevent degradation.

Scenic resources can be protected through a number of non-regulatory and/or regulatory approaches. Protection can be provided through regulatory standards and/or the development review process, acquisition of conservation easements or private actions, such as deed restrictions.

### INVENTORY OF SCENIC RESOURCES

An inventory and assessment of a community's scenic resources can be a valuable tool for preserving scenic areas worthy of protection. A community can use a variety of approaches to identify and assess scenic resources depending on the particular need. An inventory and evaluation must be carefully documented and based on a reasonable methodology to be the basis for regulation.

Several years ago, a preliminary inventory of scenic areas was developed for South Berwick. The listing of sites was further refined during the Comprehensive Plan update process to include sites shown in Table 7-3 (page 7-12), and on Map 7-2 (page 7-10).

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TABLE 7-3

SOUTH BERWICK SCENIC RESOURCES

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Scenic Views

Route 4 bridge above and below dam  
View from Hamilton House  
Route 101 bridge - above and below  
Vaughn Woods  
Vine Street Bridge  
Salmon Falls River by Rollins Ford  
Powder House Hill - across ball fields  
Dunn Farm  
Mt. Agamenticus  
Vista from Spring Hill  
Farm on Knight's Pond Road near Town Forest  
Spring Hill Outlook in Tatnic  
Hooper Sands Bridge - above and below  
Farms on Emery's Bridge Road

Scenic Roads

Witchtrot Road  
Oldfields Road

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PLANNING CONSIDERATIONS

1. Additional Information. The information presented in this section is intended to "red flag" sensitive sites, and generate more specific requests to the Heritage Program for additional, more detailed information. More detailed information could include the amount of buffer area necessary to protect the site and the types of land use activities that would be most harmful.
2. Destruction of Area. As of this writing, area #396 has been destroyed. There has been some clear-cutting on the shore in area 26-8,9.
3. Lack of Protection. The Town does not have any regulations in place to protect the various resources identified in this section of the Plan. In part, this is due to the fact that cultural resources had not been considered during prior comprehensive planning efforts.

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## SECTION 8. ECONOMY

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NOTE: See Population section for data on income and employment.

### NEW ENGLAND PERSPECTIVE

The New England Economic Project, a non-profit organization of private companies, state governments and educational institutions, gathers economic statistics and periodically forecasts economic changes in the New England economy. The latest effort of the group has just been completed, with economic sector forecasts through 1991.

In summary, New England's economy is expected to reflect a national slowdown in growth in 1990, followed by a pickup in 1991. Manufacturing employment is expected to have turned around in New England in 1988 and to show gains during most of the forecast period. New England manufacturing job gains will be concentrated in durable goods and industries, especially non-electrical and electrical machinery. Non-manufacturing jobs are expected to expand about 2 percent annually in New England over the forecast period, continuing to grow faster than the nation as a whole. Service industries, growing at a 3 percent rate, will account for about half the sector's job gains. Growth in finance, insurance and real estate jobs, after slowing in 1988 and 1989, will pick up in 1990 and again in 1991. Housing will continue a gradual slowdown until a rejuvenated economy starts up again in 1991.

### STATEWIDE ECONOMIC TRENDS

According to "The Maine Economic Outlook to 1995," prepared by the Maine State Planning Office in 1987, the State can expect moderate but steady economic growth for the 1987-1995 period. This growth will produce a net increase of 43,700 full and part-time wage and salary jobs, and an additional 18,700 full and part-time self-employed proprietors. The gradual shift in Maine's workforce from goods-producing to non-manufacturing industries will continue. Service sector employment, which now comprises 75% of total Maine employment, will account for 77% of all employment by 1995.

Service sector industries are projected to create 9,000 new jobs by 1995, reflecting a growth of 57%. Health service employment is expected to continue to grow, creating 10,000 new jobs by 1995, or an increase of 26% over 1985. Transportation and utilities services are forecasted for a growth of 1,900 jobs,

or 10%, by 1995. Employment growth is expected to be slow in financial and related services and construction activities.

According to "Maine's Economic Heritage," prepared in May, 1989 for the Commission on Maine's Future, there are a number of patterns and changes that will affect the State's economy into the future. Some of the more significant observations include the following:

1. World Trade. To an increasing extent, Maine companies are becoming more active in export trade.
2. Low Cost Labor and Land. Maine will continue to be seen as a location for low cost labor and land.
3. Manufacturing. Despite a number of declines in basic industries, Maine remains heavily oriented to manufacturing, a fact of life rooted deeply in the State's history.
4. Current Economic Boom. The current economic boom, like all others, cannot be sustained.
5. Growth vs. Quality of Life. Maine's recent growth is based in large part on a superior quality of life, expressed in a pleasing, natural landscape, access to shores, bays, and woods, and a slower pace of life. However, the side effects of Maine's prosperity since 1975 threaten this basic source of future prosperity.

#### SOUTH BERWICK'S ECONOMY

South Berwick is strategically located at the fringes of the Greater Boston/Southern New Hampshire Metropolitan Area. This has resulted in a wide variety of job opportunities within commuting distance for Town residents. In 1988, South Berwick had an unusually low unemployment rate (.9%) when compared to either the County (2.4%) or the State (3.8%). The Town's major employers include Duchess Footwear Corporation, with 450 employees, the Town and school systems with 112 employees, and Civil Consultants Engineering with 40 employees. The Town has one industrial park but no tenants. In 1989/90, Watts Fluid Air initiated discussions with the Town concerning a possible relocation from Kittery to Route 236, which is not zoned for industry. The company employs 200 currently. Officials indicate that they might expand to include an additional 200 employees at some time in the future.

Given current labor shortages in Southern Maine and New Hampshire, the residents of the Town will probably continue to enjoy a relatively high degree of economic prosperity, unless there are major cutbacks at the Portsmouth Naval Shipyard. South Berwick will probably continue to be an attractive community in which to live, due to the Town's proximity to major employment centers.

COMMUTER PATTERNS

The 1980 U. S. Census revealed that 19.3% of South Berwick's employed labor force worked directly in South Berwick, while 80.7% worked in other communities. Table 8-1 shows that the three counties of greatest employment are York County, Maine (50.8%), Rockingham County, New Hampshire (25%), and Strafford County, New Hampshire (17.6%).

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TABLE 8-1

COUNTIES OF EMPLOYMENT FOR SOUTH BERWICK RESIDENTS

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County	Percentage of Labor Force
Androscoggin (ME)	Less than 1
Penobscot (ME)	Less than 1
York (ME)	50.8
Middlesex (MA)	1.4
Suffolk (MA)	Less than 1
Rockingham (NH)	25
Strafford (NH)	17.6
Unreported	3

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Source: 1980 U. S. Census, Maine Labor Department

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Table 8-2 displays the municipalities in which residents of South Berwick are employed. The greatest percentage (19.3%) of the labor force are employed in South Berwick. Kittery, Maine is second with 16.2% followed by Portsmouth, New Hampshire with 14.7%.

TABLE 8-2

MUNICIPALITIES OF EMPLOYMENT FOR SOUTH BERWICK RESIDENTS

Municipality	Percentage of Labor Force
Durham, ME	Less than 1
Exeter, ME	Less than 1
Berwick, ME	6.7
Eliot, ME	1.5
Kittery, ME	16.2
North Berwick, ME	Less than 1
Saco, ME	1
Sanford, ME	Less than 1
South Berwick, ME	19.3
York, ME	3.3
Unreported York County Town	1.5
Burlington, MA	1.4
Boston, MA	Less than 1
Newington, NH	4.9
Northwood, NH	Less than 1
Portsmouth, NH	14.7
Seabrook, NH	3.2
Stratham, NH	1.2
Dover, NH	12.8
Durham, NH	1.2
Rochester, NH	Less than 1
Somersworth, NH	2.2
Strafford, NH	Less than 1
Unreported	3

Source: 1980 U. S. Census, Maine Labor Department

The 1989 Citizen Survey results revealed that 36% of the commuters travel to the greater Portsmouth area, 14% drive to Dover, 4% are employed in Sanford, 2% travel to Boston, and 22% are employed elsewhere.

TAXABLE RETAIL SALES

There are no readily available statistics to indicate the strength of the service sector in South Berwick. However, taxable retail sales can be used to analyze the strength of the local retail economy.

Table 8-3 highlights total consumer retail sales information for South Berwick from 1984 to 1988. Additionally, the figures for York County and the State of Maine are shown for comparison. In 1984, South Berwick's sales were .4% of the total County sales and .04% of the total State sales. In 1988, South Berwick still maintained .04% of the State's total consumer sales, but claimed .3% of the County sales. (The Town had about 3% of the County's population.)

TABLE 8-3

TOTAL CONSUMER RETAIL SALES  
(in thousands of dollars)

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Year	South Berwick	York County	State of Maine
1984	2,032	532,884	5,090,708
1985	2,129	623,863	5,709,977
1986	2,316	738,782	6,362,236
1987	2,851	836,963	7,179,076
1988	2,771	882,379	7,815,359

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Source: Maine Bureau of Taxation, August, 1989

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Taxable retail sales information can be categorized into seven product groups. These groups are defined as follows:

1. Consumer Retail Sales. Total taxable retail sales to consumers.
2. Building Supply. Business durable equipment sales, contractors sales, hardware stores, and lumberyards.
3. Food Stores. All food stores from the large supermarkets to the small corner food stores. The values here are non-food items only since food eaten in the home is not taxable.
4. General Merchandise Stores. Clothing, furniture, shoes, radio, TV, household durable goods, home furnishings, and products typically found in a large department store.

5. Other Retail. This group includes a wide selection of taxable sales not covered elsewhere. Examples are dry goods store, drug stores, jewelry stores, sporting goods stores, antique dealers, morticians, book stores, photo supply stores, gift shops, and others.
6. Auto. This sales group includes auto dealers, auto parts, aircraft dealers, motorboat dealers, the leasing of automobiles, etc.
7. Restaurants and Lodgings. All stores selling prepared food for immediate consumption. The lodging group includes only rentals tax.\*

\* Definitions provided by Maine State Planning Office

Table 8-4 displays a comparison of 1984 figures to 1988 figures by product group for South Berwick. There were decreases in the product areas of building supply and restaurant/lodging. A slight increase is shown for automobiles. Significant increases occurred in food stores (126%), general merchandise (117%), and other retail (157%). There was a total increase of 36% from 1984 to 1988. South Berwick's three largest sources of retail sales are other retail, restaurant/lodging, and building supply.

TABLE 8-4  
TAXABLE RETAIL SALES - SOUTH BERWICK  
1984 AND 1988  
(in thousands of dollars)

Product Group	1984	1988	Percent Change 1984-1988
Building Supply	632	548	-13
Food Stores	136	308	26
General Merchandise	110	239	117
Other Retail	354	910	157
Automobile	187	198	6
Restaurant/Lodging	613	568	-7
<b>Total</b>	<b>2,032</b>	<b>2,771</b>	<b>36</b>

Source: Maine Bureau of Taxation, August, 1989.

Table 8-5 reveals a comparison between South Berwick's change in retail sales from 1984 to 1988, and the changes in York County and the State of Maine. In three areas, building supply, automobile, and restaurant/lodging, South Berwick's figures were significantly less than those for the County and the State. South Berwick achieved greater increases than the County and State in the areas of food stores, general merchandise, and other retail. Looking at the total change, South Berwick's increase (36%) was less than changes in the County (66%) and the State (54%). The Town's largest increases were in food stores, general merchandise, and other retail.

TABLE 8-5

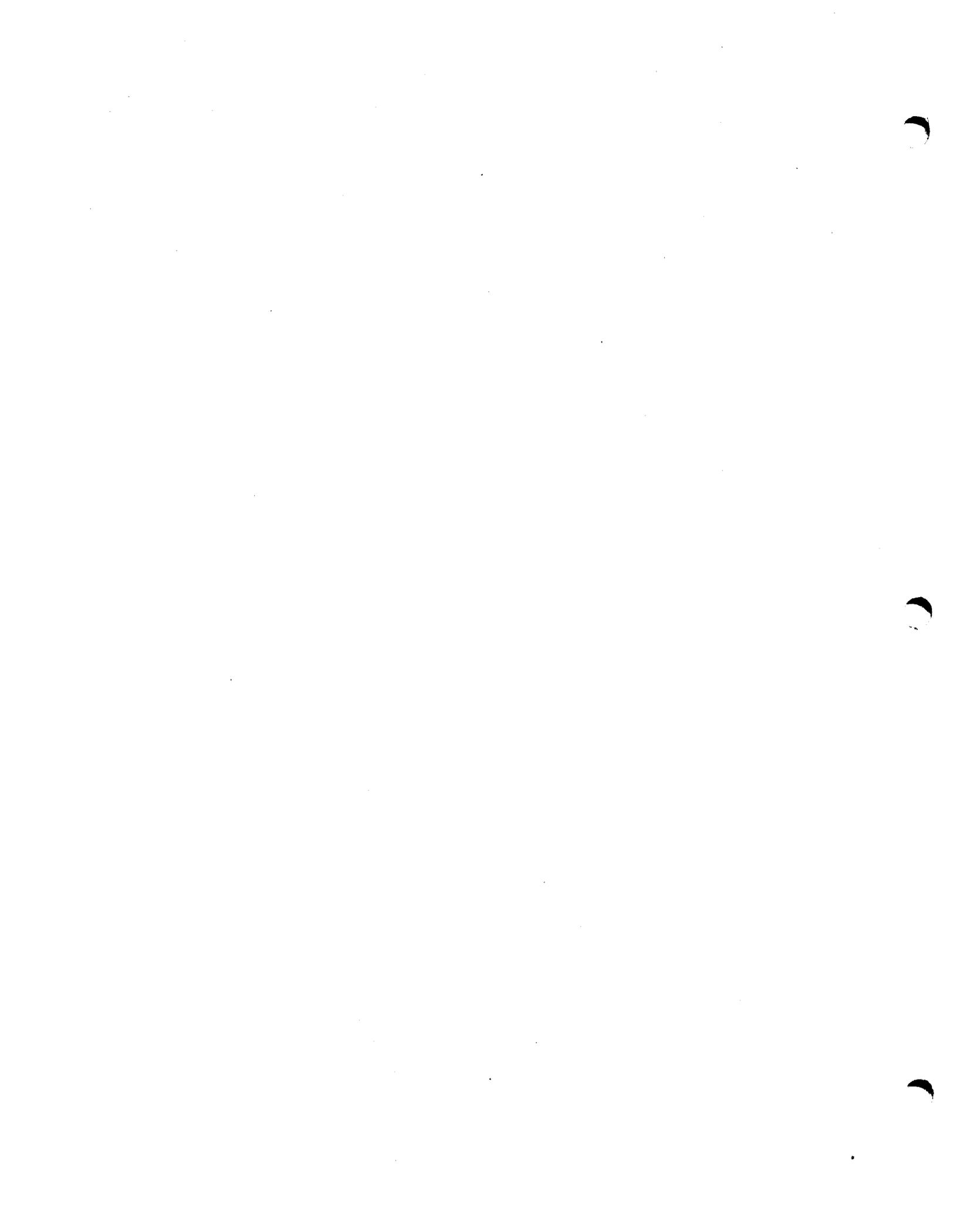
TAXABLE RETAIL SALES COMPARISON  
SOUTH BERWICK, YORK COUNTY, AND STATE OF MAINE  
1984 to 1988

Product Group	South Berwick	York County	State of Maine
Building Supply	-13	89	92
Food Stores	126	73	67
General Merchandise	117	62	30
Other Retail	157	46	44
Automobile	6	60	52
Restaurant/Lodging	-7	67	57
Total	36	66	54

Most of South Berwick's commercial properties are located in the Town's Business District. Given the relevant importance of retail trade to the Town's overall economy, the 6 acres of vacant land in the Business District will not be enough to accommodate future growth and development.

PLANNING CONSIDERATIONS

1. Community Status. South Berwick is basically a bedroom community, with most of the Town's labor force commuting to other towns for work. There is a desire to expand the tax base, but the opportunities are limited, primarily because of downtown traffic, the lack of areas zoned for commercial uses outside the downtown, a remote industrial area, and the lack of an aggressive, proactive economic development program.
2. Regional Perspective. In the coming years, South Berwick's economy will be linked to a number of regional events, including reductions at the naval shipyard, and changes at Pease Airforce Base. The changes will likely produce a certain level of turmoil in the regional and local economies.



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## SECTION 9. FINANCIAL POLICIES AND ANALYSIS

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### TAX RATE

Any discussion of capital outlays must begin with an analysis of the impact of expenditures on the tax rate. The following table depicts the historical valuation and tax rate trends for South Berwick.

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TABLE 9-1

HISTORIC TAX RATE 1982-1990

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Year	Assessed Valuation	% Change	Tax Rate	% Change
1982	58,697,050	-	19.45	-
1984	61,329,150	+ 4.5	19.65	+ 1.0
1985	66,324,737	+ 8.0	19.50	- 0.8
1986	70,413,610	+ 6.0	19.50	0
1987	74,603,320	+ 6.0	25.50	+ 31.0
1988	231,980,060	+ 211.0	8.90	- 187.0
1989	266,920,600	+ 15.0	7.20	- 24.0
1990	285,128,190	+ 7.0	9.30	+ 29.0

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Until recently, the Town had an extremely stable tax rate. Before 1987, a moderately increasing valuation and very conservative budgets enabled the Town to maintain little or no change in the tax rate. With more and more pressures to update Town facilities and services, in addition to significant increases in the school assessment, the tax rate increased significantly. In 1987, the Town experienced a 53 percent increase in the Town's education assessment and a 40 percent increase in the municipal budget, causing a 30 percent increase in the tax rate. A revaluation in 1987 caused the tax rate to decrease dramatically. In 1990, the tax rate again experienced a large reduction due to the rejection at Town Meeting of the Buildings portion of the Capital Improvements Plan. In 1989, the

tax rate increased substantially due to a 38 percent increase in the school assessment. A \$1 million capital improvements plan was also adopted. However, the plan is funded with financing revenues and was not a significant portion of the tax burden.

In an effort to stabilize the tax rate, the Town has adopted a capital improvements plan. Another area that may be addressed by the Town Council is a policy decision which will set some maximum levels on expenditures. For example, the Town Council could put an upper limit of a 3 percent increase on the tax rate. By establishing this policy guide for tax increases, the Town will be able to project future tax rates and to eliminate great fluctuations in the rate. In addition, the Town will be able to project what funds are available for capital improvements for any given year. Thus, two goals will be accomplished: 1) policy guidelines are set within which appointed officials can work to develop a capital budget and 2) a stable tax rate can be maintained.

#### PROPERTY VALUATIONS

In 1979, Town properties were reassessed to reflect 100 percent of market values. From that point to 1987, the value of property in South Berwick had dropped to nearly 50 percent of market value. In 1987, the Town conducted another revaluation and equalization project. With the escalating market values of property in York County, some values in South Berwick increased by as much as 500 percent. The revaluation resulted in a tremendous increase in the Town's assessed valuation and decreased the tax rate nearly proportionately.

Historic data shows an annual average 7-8 percent increase in the local valuation from 1981-1990, excluding the year of the revaluation. With the projected growth anticipated for South Berwick, it is expected that the valuation will continue to increase by a similar rate for the time being. However, the Planned Growth Ordinance enacted by the Town Council in 1988 may tend to slow the rate of increase of valuation over the next 3-5 years.

The Board of Assessors have established assessment policies to keep the town valuation current. They have adopted a 25 percent Review Plan which calls for one-quarter of the property to be inspected and reassessed annually. In addition, the Town has in-house capabilities to do market analyses to determine the percentage of current market value at which property is assessed. Adjustments are made each year to overall property values to keep them current with market values.

#### FEDERAL REVENUE SHARING

The federal program of returning excess revenues from the Federal Government to local governments was eliminated in the 1986 Congressional budget. South Berwick consistently received a

significant portion of its revenues from this source. The traditional use of these funds was for large capital expenditures. All FRS funds were depleted in 1987 and 1988.

#### STATE REVENUE SHARING

Income from State Revenue Sharing has increased to a 5.25 percent cut from the total sales taxes collected by the State Bureau of Taxation. The Town has benefited directly with almost a 150 percent increase in State Revenue Sharing funds since 1982. With the elimination of the Federal Revenue Sharing Program, State Revenue Sharing will be a primary source of funding. State Revenue Sharing is distributed based on a formula taking into account the municipality's state valuation. Historically, State Revenue Sharing funds have increased an annual average of 25 percent per year based upon increased State sales tax income. It is estimated that State Revenue Sharing will continue to increase in proportion to sales income at about a rate of 20 percent.

#### EDUCATION FUNDING

In 1987, for the first time, the State of Maine appropriated block grant funds aimed at property tax relief. The purpose of these funds is to reduce the burden on municipalities for costs which are mandated by education criteria; teachers' salaries, teachers' certification, and other State requirements. Under the block grant program, which is not expected to continue, South Berwick received \$30,000. The State has continued its appropriation of a smaller grant program to fund teacher certification requirements, under which \$6,500 is distributed to South Berwick.

#### LOCAL ROAD ASSISTANCE

The Town receives funds from the Maine State Department of Transportation for assistance in maintenance of roads. Under a new funding formula adopted by the Legislature in 1988, distribution is to be based on a fixed dollar payment per mile for the average summer/winter miles of road maintained by the municipality.

The per mile reimbursement allotment is determined by an allocation made by the Legislature from the Highway Fund and may change according to Legislative appropriations to the program; but will not be less than \$1,200 per average mile maintained. The new formula will begin in the FY 91 distribution and will be phased in over a four year cycle. The new formula represents a decrease in the amount of funding South Berwick has historically received.

TABLE 9-2

LOCAL ROAD ASSISTANCE FUNDS

Year	Reimbursement	Year	Projected Reimbursement
1990	\$ 79,139	1991	\$ 65,469
1989	72,075	1992	65,469
1988	72,075	1993	65,469
1987	72,075	1994	65,469
1986	62,465		
1985	52,855		
1984	52,855		

EXCISE TAX

The Town receives a significant sum each year from excise taxes on motor vehicles and boats. Generally excise taxes have increased an average of 20 percent per year over the past five years, in part because of a population growth explosion during 1986-87. As population growth slows, the increase in excise taxes will also slow. It is expected that excise revenue will increase over the next 5 years at a more gradual rate of 5-10 percent.

NONTAX REVENUES

Nontax revenues for the Town consist of license and permit fees, charges for services, fines and penalties, interest income, and miscellaneous sales, grants, and donations.

The Town charges for a variety of licenses and permits, including: weapons permits, marriage and birth certificates, building and plumbing permits, subdivision fees, planning review fees, alarm permits, and zoning variances.

The Town charges for services provided to other governmental and quasi-governmental entities, including dispatch service to the Town of Berwick, solid waste transportation to the Town of North Berwick, and bookkeeping for the South Berwick Sewer District.

Fines and penalties consist of parking fines, zoning fines, tax lien costs, and other miscellaneous ordinance fines.

The Town also realizes revenues from recycling sales, sale of used equipment, and other small state grants and reimbursement for lost property tax dollars for libraries, tree growth, park maintenance, snowmobile registration, general assistance reimbursement, and veteran's exemption reimbursement.

Nontax revenues have been a focal point in the past 2-3 years in the budget preparation process. With a high priority goal of maintaining a tax rate which is consistent with providing the existing level of service combined with inflation, cost of living, and reduction in State and Federal subsidies, the challenge for the Town has become one of redefining tax revenues. The goal of the Town is to keep fee levels current with the cost of providing services, exploring new fees as revenue sources, and implementing new programs only where they can fund themselves on a fee basis.

Nontax revenues skyrocketed in 1986-88 with a significant increase in building and subdivision activity. Revenues for building permits and subdivision fees tripled. However, in 1989, those revenues dropped back down to their pre-1986 levels.

The following is an historical breakdown of nontax revenues:

TABLE 9-3

NONTAX REVENUES

	1989	1988	1987	1986	1985	1984
Licenses and Permits	27,958	64,856	63,829	26,193	10,040	10,696
Charges for Services	57,277	46,023	39,448	27,117	26,620	30,845
Fines & Penalties	3,657	3,173	3,026	9,936	4,832	3,528
Interest	99,449	86,564	69,474	83,778	80,497	77,441
Miscellaneous	70,340	64,463	24,275	23,381	16,681	16,315
Total Nontax Revenue	258,691	265,079	200,052	170,405	138,670	138,825
Percent Change	- 3	+ 33	+18	+ 23	- 1	0

.It is estimated that nontax revenues will increase at an average of 3-5 percent for the next few years.

#### ELIZABETH R. VAUGHAN FUND

In 1949, Mrs. Vaughan, a lifelong resident of the Town of South Berwick donated \$50,000 to the Town. The Town Council acts as the Board of Trustees of the fund and have utilized an investment firm to manage it. The purpose of the funds is to support recreation, primarily winter recreation. In 1984, the Vaughan Fund purchased Powderhouse Ski Hill for \$15,000. Annually, the Trustees donate to the Town funds for recreation and libraries.

#### UNDESIGNATED GENERAL FUND BALANCE

The Town has historically maintained a surplus as recommended by municipal financial experts for the purpose of funding municipal operations prior to the collection of tax revenues. In 1982, the Town changed from a January-December fiscal year to a July-June year. From July 1, the start of the new fiscal year to September 30, the due date for the first half of taxes, the Town operates on its general fund balance. This has eliminated the need for the Town to borrow funds in anticipation of taxes. This is a sound financial practice and has saved the Town much interest expense since 1982.

The Town Council has generally established a policy of maintaining a surplus level of an amount equal to 3 months operating expenses. However, the Town has fallen well below that benchmark for the past 2-3 years. Generally, the Town has maintained a surplus in the vicinity of \$500,000 - 600,000.

The Town has made it a practice in the past years to appropriate funds from the general fund surplus at the annual Town meeting to reduce the commitment. This appropriation amounts to \$100,000 - 200,000 per year.

#### BONDED INDEBTEDNESS

Another source of funding for the Town is borrowing or bonding capital items. State law limits the amount of debt a municipality may incur. This cap is set at seven (7) percent of the municipality's State valuation. In addition, a 15 percent limit is applied to the combined total of the Town's debt plus all overlapping debt from quasi-municipal districts, including the school district, water and sewer districts, and county government.

The following is a listing of the debt issued in the various municipal and quasi-municipal entities for the year 1989 which impact the legal borrowing limitations placed on the Town.

<u>Entity</u>	<u>Total Debt Issued/Projected</u>		
Town		1,713,505	
SAD #35		4,870,000	
Water District		4,000,000	
Sewer District		330,000	
York County		120,000	(South Berwick Share)
TOTAL		9,033,502	
Allowed Debt:			
Municipal	\$14,700,000	Overlapping Debt	\$31,500,000
Debt Issued:			
Municipal	1,713,502	Overlapping	9,033,502
Balance			
Available:			
Municipal	12,986,498	Overlapping	22,466,498

Municipal finance experts use general rules of thumb as indicators as to when municipalities are too debt heavy:

1. Percentage of Assessed Valuation - Generally, the danger level occurs when a municipality has bonded 10 percent or more of their assessed value. In South Berwick, 10 percent of the assessed value is \$28,000,000.
2. Debt Service Per Capita - When debt service reaches \$500.00 per capita, the municipality has incurred too much debt. The current debt service per capita in South Berwick is \$153.00 per person.
3. Debt Service as a Proportion of Budget - Debt service should not reach 25 percent of the total budget. Currently the debt service in South Berwick is 5 percent of the budget.

There are two alternatives to borrowing funds for capital improvements:

- a) Reserve Funds - Reserve funds are created by appropriating money or authorizing the transfer of unencumbered surplus at the end of a fiscal year to be deposited in a special capital improvements account.
- b) Level Funding - Level spending is spending only that available from the annual appropriation.

The 1979 Comprehensive Plan encouraged the use of borrowing. This was written after years of sustained and very high levels of inflation. Municipalities could obtain loans at below market rates. In 1979, municipalities could borrow at 10-12 percent, while inflation was at 16 percent. Today inflation is reduced and stable. Bonds are still available to the Town at below

market rates, but the interest rate is now approximately twice the inflation rate.

South Berwick has been conservative in the past with regard to borrowing. Reserve funds have been routinely used and major expenditures financed through reserves. Major projects like road work have also been done in a level funding approach, doing portions of needed work with annual appropriations only.

The 1987 and 1988 capital improvement plans placed more emphasis on long term debt financing. The Town has done little in the way of improving its buildings and is now faced with the simultaneous need to address a number of deficiencies. Level funding would not suit this kind of capital outlay. The 1989 CIP makes a commitment to the renovation and reconstruction of the Town's municipal buildings. This commitment will cost \$2,500,000 - \$3,000,000 spread out over time; thus a significant increase in the amount of the bonded indebtedness of the Town.

Tables 9-4 and 9-5 contain an historical summary of debt service and a 5-year projection based on the 1990 capital improvements program.

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TABLE 9-4

DEBT SERVICE

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Year	Debt Service	Year	Projected Debt Service
1989	108,051	1990	181,699
1988	43,889	1991	234,204
1987	39,109	1992	245,374
1986	45,660	1993	258,597
1985	48,678	1994	334,739

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TABLE 9-5

## DEBT SUMMARY BY ITEM

Purpose	Issue Date	Rate	Maturity Date	Amount	
Municipal Building	7/7/88	%		\$	
		5.0	1989	1,500.16	
		5.3	1990	4,080.70	
		5.65	1991	4,047.07	
		5.9	1992	4,025.73	
		6.1	1993	4,013.25	
		6.25	1994	4,008.06	
		6.4	1995	4,008.06	
		6.6	1996	6,015.11	
		6.75	1997	6,062.10	
		6.85	1998	6,121.30	
		6.95	1999	6,190.61	
		7.05	2000	6,270.85	
7.2	2001	6,362.95			
7.3	2002	6,471.08			
7.4	2003	6,593.47			
7.5	2004	<u>6,731.39</u>			
				82,502.48	
Revaluation	5/20/87	5.7	\$25,000		
			(annually)		
			1988-91	100,000	
		6.0	10/25/92	<u>20,000</u>	
				120,000.00	
Capital Improvements	10/28/87	7.375	\$20,000		
			(annually)		
			1988-94	140,000	
			7.4	1995	20,000
			7.5	1996	20,000
			7.6	1997	20,000
			7.7	1998	20,000
			7.8	1999	20,000
			7.9	2000	20,000
			8.0	2001	20,000
8.1	2002	<u>20,000</u>			
				300,000	
Roll Off Truck	11/16/87	6.25	\$14,000		
			(annually)		
			1988-93	70,000	
Capital Improvements	10/26/88	6.5	\$10,000		
			(annually)		
			1989-92	40,000	
			6.6	\$10,000	
			(annually)		
			1993-97	50,000	

Purpose	Issue Date	Rate	Maturity Date	Amount
		%		\$
		6.75	1998	10,000
		6.9	1999	10,000
		7.0	2000	10,000
		7.1	2001-02	20,000
		7.2	2003	10,000
		7.25	2004-05	20,000
		7.3	2006-07	20,000
		7.4	2008	<u>10,000</u>
				200,000
TOTAL OUTSTANDING				\$ 772,503

#### LOCAL TAX BURDEN

Local taxes fund only a portion of the municipal expenditures. If one deducts revenues, bonds, general fund appropriations, and other financing sources from the total budget, we can determine that amount which is funded through property taxes. South Berwick has had a trend of steadily decreasing reliance on the property tax. This trend can be attributed to the Town's changing policies in relation to nontax revenues, long term financing, and capital budgeting.

TABLE 9-6

#### TAX BURDEN

Year	Total Budget	Property Tax Commitment	Percentage of Budget funded with Property Taxes
1990	\$ 4,583,244	\$ 2,651,242	58 %
1989	3,393,966	1,864,264	55
1988	3,668,367	2,084,546	57
1987	2,646,674	1,902,442	72
1986	1,890,711	1,373,074	73
1985	1,797,573	1,293,338	72
1984	1,708,659	1,205,108	71

In order to assess the property tax burden on South Berwick taxpayers in comparison with those taxpayers of surrounding towns, it is valuable to look at full value tax rates which are calculated each year by the Maine Municipal Association. Full value tax rates are determined by dividing the Town's tax assessment (amount needed to be raised through property taxes) by the State Valuation (as opposed to the Town Valuation). By using the

State Valuation, it provides a consistent method of comparison. Adversely however, State valuation reflects property values that are approximately two years old. This time lag causes some of the full value numbers to be an inaccurate portrayal of a municipality's property tax situation.

According to the Maine Municipal Association, South Berwick has the lowest full value tax rate in York County as described in the article entitled, Full Value Tax Rates from the February, 1989 Maine Townsman. The rates were calculated based on 1989 State Tax Assessments and 1988 Local Tax Commitments as follows:

TABLE 9-7

YORK COUNTY FULL VALUE TAX RATES

Municipality	Full Value Tax Rate
Acton	10.03
Alfred	13.80
Arundel	18.75
Berwick	14.94
Biddeford	16.32
Buxton	11.52
Cornish	12.26
Dayton	13.63
Eliot	11.21
Hollis	11.52
Kennebunk	12.57
Kennebunkport	10.43
Kittery	16.03
Lebanon	15.07
Limerick	10.59
Limington	10.98
Lyman	11.60
Newfield	9.54
North Berwick	10.66
Ogunquit	8.40
Old Orchard Beach	18.06
Parsonfield	10.39
Saco	16.56
Sanford	16.45
Shapleigh	9.63
South Berwick	9.15
Waterboro	12.25
Wells	10.21
York	10.22

FINANCIAL TRENDS

The following is a compilation of historical revenues which show the trends discussed above.

TABLE 9-8

REVENUE HISTORY

	1984	1985	1986	1987	1988
Property Tax	1,205,108	1,310,838	1,356,479	1,916,369	2,084,546
Excise Tax	170,652	195,140	328,872	317,704	379,924
Federal Revenue Sharing	72,000	85,200	10,125	12,000	30,788
State Revenue Sharing	71,000	101,000	146,873	164,473	192,607
DOT	52,855	52,855	62,465	72,075	72,075
Other Revenue	138,825	138,670	170,405	200,072	265,079
Designated/ Undesignated Funds	336,054	338,647	406,641	500,194	607,867
Note Proceeds	0	0	0	120,000	370,000
Vaughan Fund	0	19,250	1,000	1,500	2,500
TOTALS	2,046,494	2,241,600	2,392,860	3,304,387	4,005,386

TABLE 9-9

## EXPENDITURE HISTORY

	1984	1985	1986	1987	1988
Municipal	936,938	1,014,168	1,039,163	1,396,910	1,443,473
Capital	-	-	-	-	909,010
School	679,092	693,720	764,118	1,170,508	1,215,201
Debt	51,622	48,678	45,660	39,109	43,889
County	41,007	41,007	41,770	40,146	56,792
Totals	1,708,659	1,797,573	1,890,711	2,646,674	3,668,367
% Change	+ 9	+ 5	+ 6	+ 40	+ 39

Expenditures increased moderately in the early 1980's. However, growth pressures in the later 1980's caused significant increases in the school budgets and municipal operating costs. Other causes of higher expenditures include increased mandated expenditures by the State government and a new commitment by Town officials to begin to replace deteriorating capital facilities (roads, buildings, and equipment).

In 1987, the SAD #35 budget increased by 50 percent. In the same year, the Town expended \$120,000 to conduct a revaluation of all Town properties and undertook two large road projects on Emery's Bridge Road and Young, Butler and Nealley Streets. In 1988, the Town added staff to keep up with the increased demand for services caused by a larger population. A Planning/Engineering Department was added with a full time planner and engineer and secretarial staff. In addition, a full time police officer was added. In addition, solid waste transportation to MERC was undertaken, warranting the purchase of a truck and the addition of a truck driver position, the cost of which is shared with North Berwick. General Administrative costs increased less dramatically with pay increases only keeping pace with inflation.

The trend into 1989 and 1990 shows much smaller increases in municipal operating costs with 2 percent and 4 percent increases respectively; substantial capital costs with the adoption of a five year capital plan calling for the renovation of the three major municipal buildings (Town Hall, Town Garage, and Public Safety Building); and significant increases in education costs (37 percent in 1990). Future increases can be projected at

approximately 8 percent per year for municipal expenditures and 20 percent per year of education, and 10 percent per year for County Tax, based upon historical data.

CAPITAL EXPENDITURES

Given all of the data above, the Town can determine its best level of expenditure for capital improvements based on the resources available to it.

For any one year, the Town can calculate its maximum capital expenditures by analyzing its operational costs and applying the maximum tax rate set by the Town Council. An example follows:

EXAMPLE\*\*

Proposed Municipal Expenses	\$ 1,500,000	
Estimated Education Assessment	1,600,000	
Debt	100,000	
Estimated County Tax	<u>62,000</u>	
Total	\$ 3,262,000	
Nonproperty Tax Revenues	<u>( 800,000)</u>	
Needed to Raise	\$ 2,462,000	
<hr/>		
Estimated Valuation	\$ 235,000,000	
Maximum Tax Rate	<u>.01200</u>	.00915
Total Raised	2,820,000	2,150,250
Total Operating Expenditures	<u>2,462,000</u>	
Total Available for Capital Expenditures	358,000	

\*\* Please note that this is an illustration only; the budget and tax rate numbers do not correspond to any fiscal information for the Town of South Berwick.

The maximum mill rate is the rate established by the Council as described previously. Given this illustration, \$358,000 is the total funds available from property taxes for capital improvement expenditures in order to stay within the guidelines established by the Council.

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To cite an example, the CIP proposed capital expenditures may be \$600,000 in one particular year. In that case, the difference between the proposed capital expenditures and the total available for capital expenditures above, \$242,000, must be funded from other sources. This amount could be bonded.

Using the analysis of revenue and expenditure trends, the Town can project its financial status over a five year period. In the same manner as described above, available resources for future capital expenditures can be predicted.

TABLE 9-10

PROJECTIONS OF CAPITAL EXPENDITURE RESOURCES

	1990	1991	1992	1993	1994
<b>Expenditures:</b>					
Municipal	1,505,285	1,625,700	1,755,765	189,225	2,047,923
Education	1,802,068	2,162,480	2,594,977	3,113,973	3,736,768
Debt	181,699	234,204	245,374	258,597	334,739
County	69,464	76,410	84,051	92,456	101,702
<b>Total Expenditures</b>	<b>3,558,217</b>	<b>4,098,794</b>	<b>4,680,167</b>	<b>5,361,251</b>	<b>6,221,132</b>
<b>Revenues:</b>					
Excise	527,000	553,350	581,017	610,068	640,571
Education	6,500	6,500	6,500	6,500	6,500
State Rev Sh	155,000	186,000	223,200	267,840	321,408
Road Asst.	65,469	65,469	65,469	65,469	65,469
NonTax Rev	279,054	293,000	307,657	323,040	339,190
Undes Fund	100,000	100,000	100,000	100,000	100,000
Vaughan Fund	6,000	5,000	5,000	5,000	5,000
<b>Total Revenues</b>	<b>1,139,002</b>	<b>1,209,319</b>	<b>1,288,843</b>	<b>1,377,917</b>	<b>1,478,138</b>
<b>Taxes to be Raised</b>	<b>2,419,515</b>	<b>2,889,475</b>	<b>3,391,324</b>	<b>3,983,334</b>	<b>4,742,994</b>
<b>Overlay 1.5%</b>	<b>40,470</b>	<b>43,342</b>	<b>50,869</b>	<b>59,750</b>	<b>71,449</b>
<b>Total Needed to be Raised</b>	<b>2,459,985</b>	<b>2,932,817</b>	<b>3,442,193</b>	<b>4,043,084</b>	<b>4,814,443</b>
<b>Valuation (in millions)</b>	<b>285</b>	<b>304</b>	<b>325</b>	<b>350</b>	<b>375</b>
<b>Max Tax Rate</b>	<b>9.30</b>	<b>9.58</b>	<b>9.87</b>	<b>10.16</b>	<b>10.47</b>
<b>Maximum that can be raised</b>	<b>2,651,692</b>	<b>2,912,320</b>	<b>3,207,750</b>	<b>2,556,000</b>	<b>3,926,250</b>

By subtracting the amount needed for operating expenditures (Taxes To Be Raised) from the Maximum Taxes To Be Raised, it is possible to figure the amount of tax dollars available for capital expenditures.

Maximum That Can Be Raised	2,651,692	2,912,320	3,207,750	3,556,000	3,926,250
Total Needed To Be Raised	2,459,985	2,932,817	3,442,193	4,043,084	4,814,443
Available for Capital Expenditures	191,707	-20,497	-234,443	-487,084	-888,193

Using these projections, the Town will be able to schedule its capital expenses based not only on need, but also on its financial resources.

As can clearly be seen with the projections outlined above, a maximum imposed 3 percent cap on the tax rate, if adopted, would not keep pace with the anticipated expenditure needs. The Town would need to explore alternative funding such as borrowing; or would need to reevaluate the self-imposed cap.

#### PLANNING CONSIDERATIONS

1. Tax Base. While South Berwick has a relatively stable tax base, there is a local desire to broaden it so that dwelling units do not bear the load of taxes raised to pay for needed public improvements. Property taxes are, and will continue to be, a major concern of the citizens of South Berwick.
2. Capital Improvements Program. South Berwick has a dynamic capital improvements program which guides the capital investment efforts of the Town. The CIP will be an important component of future public improvements. Recommended capital expenditures contained in this Plan will have to be built into the CIP process.

#### SUMMARY

It should be noted, at this point, that the preceding analysis was conducted during the early fall of 1989. At that time, the Town tax rate was \$9.30. In the 1991 budget, a tax rate of \$13.90 was established for an increase of nearly 50%.

Part of this increase was due to much lower property valuations. However, the Town also hired two new police officers and embarked on a one million dollar building project to expand Town Hall and build a new Public Works facility. Nearly \$200,000 was also budgeted for road improvements, and \$77,500 spent for a dump truck. At the same time, revenues, including subdivision fees, excise taxes, and building permit fees, dropped.

While the Town was increasing its services to keep up with a growing population, the local school assessment was also increased by about 28%. The result was a large tax increase.

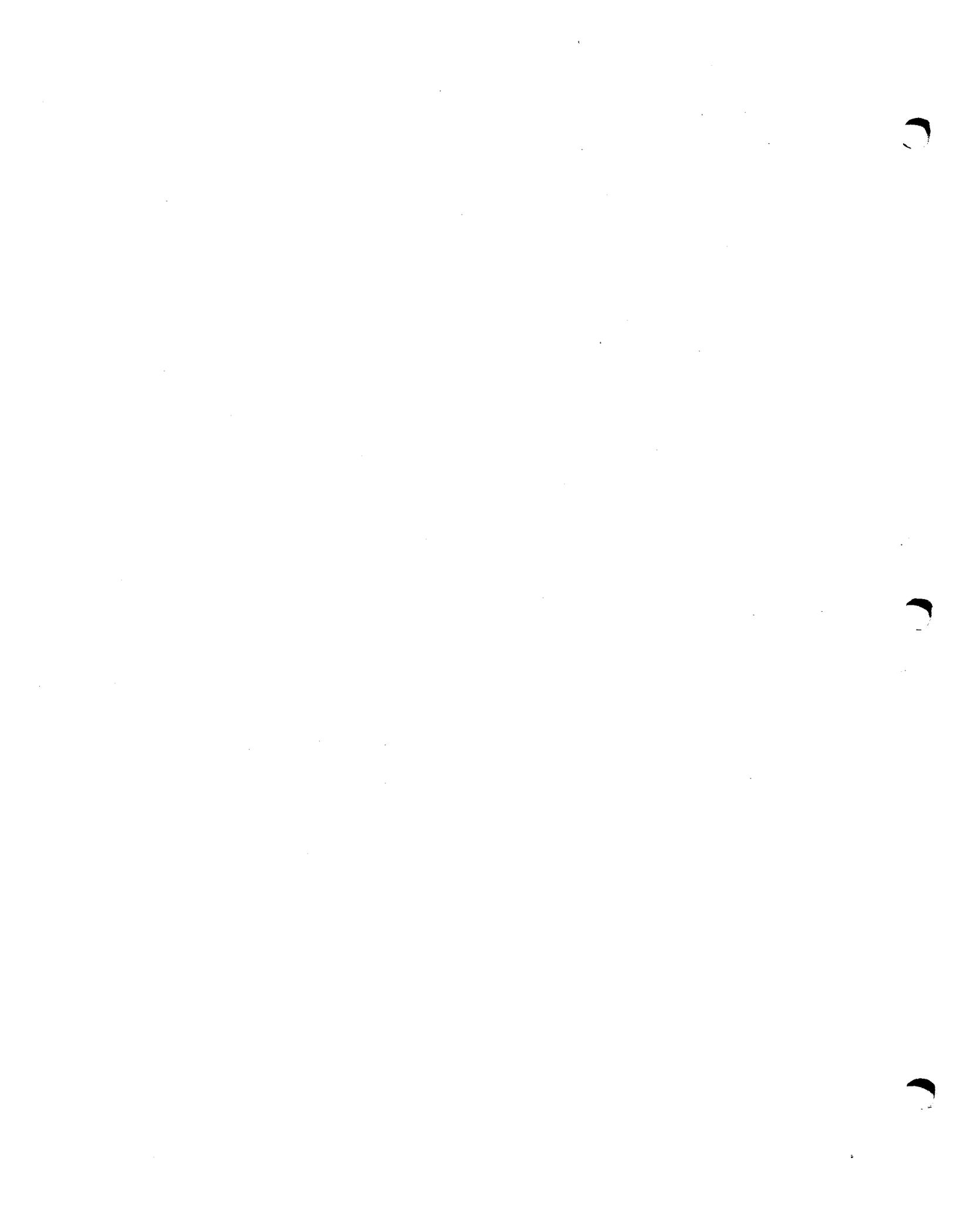
There is evidence, however, that this increase was in effect, paying bills that were overdue. For many years, the Town did not put any money into its roads, buildings or equipment. In fact, a Capital Improvements plan was only initiated in 1987.

An analysis conducted by the Town Planner in 1989 (using a tax rate of \$9.30) demonstrated that for each residential dwelling constructed in South Berwick in 1989, the costs to the Town over the income generated by the dwelling was approximately \$319. Thus, for instance, the newly constructed 40 units in 1989 may have resulted in a net loss to the Town of \$12,700. This same analysis, conducted in 1990, (using a tax rate of \$13.90) found the costs versus the benefits to be almost even.

This may point towards the notion that the Town had an artificially low tax rate for a few years due to a lack of commitment to providing services and capital improvements. The new tax rate may more accurately reflect the costs to the Town of providing and maintaining current levels of service.

What the above analysis does point to is the difficulty of imposing a 3% tax cap, or any tax cap for that matter. While the Town plans to maintain a stable tax rate, they are also committed to keeping services at acceptable levels and continuing with long-range capital improvements planning.

It has become clear that with the slowdown in growth, and the Town's self-imposed growth cap, the Town can maintain its services and long-range capital planning. Obviously, unforeseen circumstances can arise (such as State mandates or critical environmental problems). However, with the building cap in place and a combination of manageable tax increases, long-term bonding, and the utilization of impact fees, the Town is certain it has the ability to manage its fiscal affairs.



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## SECTION 10. SUMMARY OF FINDINGS

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The following is a summary of the major findings of the Comprehensive Plan Inventory, and an analysis of development issues and the potential impact of future growth on natural resources.

### POPULATION

1. Current level. The population of South Berwick has increased 50% from 1980, growing from 4,046 people to over 6100 people.
2. Projections. The Department of Human Services projects that the Town's population will grow to 6,450 by the year 2001, and 6,700 by the year 2005. These estimates are considered low because they are based on estimates of births, deaths, and migration trends and do not take into account development initiatives. The State's estimates also fail to take into account the fact that South Berwick has a significant amount of undeveloped land, and is within commuting distance of Portland, Portsmouth, and Boston.

Based on current trends and the maximum allowable building permits under the Town's Growth Management Ordinance, as well as the fact that there are and have been a number of development proposals before the Town, a figure of 8,200, or 2 1/2 times the 1980 population, is a conservative estimate for the year 2001. This level of growth will have a significant impact on the Town's facilities and resources. If growth occurs in well designed developments, the negative impacts will be minimized, but if growth is scattered and haphazard, the negative impacts will be amplified.

3. Per Capita Income. The Town's per capita income exceeded State figures in both 1980 (\$5,977 to \$5,697, respectively) and 1988 (\$10,492 to \$9,766 respectively). The Town's increase during this period also exceeded the State's increase (75.6% to 71.4% respectively).

### LAND USE

1. Overall Patterns. Historically, development has concentrated in and around the Town center. Rural sprawl is not widespread, but is beginning to occur, especially along Emery's Bridge Road, Witchtrot Road, and Route 91. Except for Route 91 near the Eliot/York line, there are few development limitations along these roads that would slow development.

There are currently 6 pending subdivisions totalling 237 lots. Four of the subdivisions, with a total of 181 lots, are in the R-3 and R-4 districts.

2. New Residential Development. Most new development consists of single family dwellings. There has been a proliferation of subdivision activity since 1980, including two large developments, Old Mill Estates and Agamenticus Estates.
3. Available Residential Land. The Town does not have sufficient land in the R-1 and R-2 districts to accommodate the anticipated level of residential growth over the next 10 years (possibly as many as 770 new dwellings). If all of the pending subdivision applications are approved, there will be 337 lots available for future housing growth.
4. Sprawl Possibilities. The land areas adjacent to many of the Town's rural roads are unencumbered by development limitations. Therefore, rural sprawl will not be stopped by wetlands, flood plains or very poorly drained soils, but in fact may be encouraged if there are not sufficient areas available for development at densities similar to those found in the R-1 and R-2 districts.
5. Residential Growth Areas. The areas currently zoned R-1 and R-2 can be expanded to accommodate future growth, although growth adjacent to the village may aggravate downtown traffic congestion.
  - a. Development Limitations. There are certain areas adjacent to the village with development limitations. The limitations include the flood plains along the Great Works River, a 10-acre wetland west of Agamenticus Estates, wetlands and flood plains along Hamilton Brook, and several wetlands and flood plains along Cox Pond.
  - b. Logical Growth Area. There are few development limitations in the area bounded by the Great Work River and Witchtrot Road. This area could be rezoned to permit higher density residential development, thus providing more than enough land to accommodate the Town's projected 10-year residential development. The jurisdiction of the Water District would have to be changed to allow services to be extended to this area.
  - c. Logical Rural Areas. With the exception of the areas outlined for additional residential and commercial growth, most of the areas currently zoned R-3 and R-4, including land in the Agamenticus Mountain region, would be logical areas to retain as rural areas.

Biased  
view

6. Environmentally Sensitive Areas. There is a need to amend existing ordinances to more completely protect sensitive lands such as wetlands, flood plains, deer yards, and aquifers from the adverse impacts of development.
7. Commercial Land. Most of the development in South Berwick is residential. The commercial growth which has occurred has taken place in and around the downtown. There are only 6 acres of vacant land zoned for commercial development in the downtown.
8. Commercial Growth. Route 236 would seem to be a logical area for future industrial development and even some commercial growth. The downtown is too congested for much additional commercial growth. However, there are some development limitations in the vicinity of the Great Works River and Quampegan Brook. In addition, a large aquifer underlies much of Route 236, which in turn may limit the types of enterprises which can locate there. Finally, there is a deer wintering area just south of the intersection of Routes 236 and 91 which could be threatened by commercial development in that area.
9. Development Controls. In areas identified for future development, there is a need to protect greenbelts, regulate parking and access, and maintain scenic character.
10. Industrial Development. A 90-acre parcel on Route 4 is zoned for industry, but has not been developed, and may not be a desirable location for industry because of the additional traffic congestion that would be created downtown.
11. Commercial Forestry. Commercial forestry operations are not extensive in South Berwick. Large scale farming operations are being replaced by smaller, part-time operations.

## HOUSING

1. Housing Growth. Between 1980 and 1988, South Berwick experienced a greater housing growth rate (59.5%) than any Town in the surrounding area. The rate was almost 2 1/2 times the County rate, and over 5 times the State rate. Most of the residential construction since 1980 has been in the form of single family dwellings. Given South Berwick's desirability as a "bedroom community," this trend is likely to continue for the foreseeable future.
2. Prices. In 1987, the sales price of a single family dwelling, as reported in the real estate transfer tax, was \$109,059, much higher than North Berwick (\$84,017) or Berwick (\$85,976), but far less than other towns in the immediate area. In 1987, the tax on the median priced home in South Berwick would have been \$1,071, greater than North Berwick

(\$837) or Berwick (\$951), but less than Eliot (\$1,748), Wells (\$1,104), or York (\$1,436).

3. Rent. In 1980, South Berwick had the third highest rent in a 6-town area (\$201), which was exceeded only by Eliot (\$229) and York (\$225). The Town also had the highest percentage of renter occupied units (25.2%).
4. Affordability. Housing affordability may be a problem, both for low and moderate income people. The median priced home (\$109,059) is out of reach of the median income family making \$ 36,800. Therefore there is a need to develop a strategy to provide a range of housing opportunities in Town.

#### NATURAL RESOURCES

1. Ground Water. There are 4 large sand and gravel aquifers in Town and a zone of potential bedrock aquifers. The sand and gravel aquifer on the Hooper Sands Road is contaminated with volatile organic compounds. The aquifer underlying the downtown supplies the Town's water. The zone of potential bedrock aquifers has the potential of providing long term water supplies to the Town, and needs to be protected from contamination threats. The zone extends from the Knights Pond area westward to the sand and gravel aquifer at the intersection of Agamenticus and York Roads. Thirty-one potential ground water threats have been identified, many of which are located over the downtown aquifer which the Water District uses. The Town's aquifers will provide more than enough water to meet the Town's needs for the foreseeable future, provided that they are not contaminated.
2. Surface Waters. Much of South Berwick lies within the Salmon Falls watershed. Most of the Town's waterways meet State water quality standards, but the waterways are monitored only periodically (every 3-5 years). There is a need for the Town to keep a closer watch on the quality of these waterways.

The Town has 5 ponds, 3 of which are rated as being extremely vulnerable to degradation, and 2 of which are rated highly vulnerable. These ponds are currently zoned resource protection.

3. Topography/Geology. Most of South Berwick consists of gently rolling hills interspersed with rivers, streams and lakes. The northeastern section of Town consists of glacial-marine deposits, while the southeastern section consists largely of glacial till. Many areas along Route 236 have soils with shallow depth to bedrock. The Town is about 60 to 70% forested. The topography of the Town offers a number of impediments to development, including wetlands and waterbodies, areas of poorly drained soils, and steep slopes in excess of 15%. Existing land use controls are not sufficient to ensure that terrain alterations will be

minimized, and that new developments will be compatible with the existing topography.

4. Floodplains. Flooding has not been a serious problem in South Berwick. All of the Town's floodplains have been designated Resource Protection, and are therefore not threatened by development, provided that existing controls are maintained.
5. Soils. Very poorly drained soils, which constitute only about 10% of the land area of the Town, do not meet the minimum standards of the State's plumbing code for subsurface sewage disposal. Areas of poorly drained and very poorly drained soils would not be suitable for large, central subsurface sewage disposal systems.
6. Wetlands. There are 24 wetlands of 10 acres or more in South Berwick which have been identified by the Maine Geological Survey. These wetlands are protected by the State's Natural Resources Protection Act, Title 38 MRSA Sections 480A-480-S. Three of these wetlands are rated "high value" and 6 are rated "moderate value."

The State's Shoreland Zoning Law requires that municipalities regulate the area of land around wetlands. The Board of Environmental Protection has adopted standards for these areas, and is in the process of determining which wetlands must be protected. The BEP has given towns until December 31, 1991 to incorporate the new standards into municipal ordinances. The Town's Shoreland Zone has been applied to wetlands of 2 acres or more. However, these smaller wetlands have not been identified and mapped, and have not been rated by the State.

7. Wildlife Resources. South Berwick's two deer wintering areas are located at Rocky Hills and Boyd Brook. The Rocky Hills deer yard lies south of the junction of Routes 236 and 91, and could be threatened if Route 236 were extensively developed in that area for commercial uses.

The Salmon Falls River supports a large variety of waterfowl, fish and other wildlife species. In addition, the Town's wetlands provide valuable habitat for a number of wetland species. While the Department of Inland Fisheries and Wildlife has rated most of the Town's wetlands for their wildlife habitat value, the wetland just east of Agamenticus Estates is of indeterminate value. Information on the Town's fisheries is not yet available from the Department of Inland Fisheries and Wildlife.

8. Critical and Natural Heritage Areas. South Berwick has an abundance of sites that are listed either in the State's Critical Areas Program or Natural Heritage Program or both. These include the sites of a kettlehole bog, an acidic pond

shore, a rich mesic forest, a snake called a racer, and 27 different plant, shrub, or tree species. Some of the sites have not been verified for many years. Many of the sites are in the Mount Agamenticus region, but none are in the areas identified as candidates for future residential and commercial growth. There have been no formal efforts to date to update the inventory and protect these areas. One of these areas, the forest around Round Pond, has been cut, and the shagbark hickory forest has been clear cut to a large extent.

9. Scenic Areas. An informal Town inventory of scenic sites identified 14 scenic areas and vistas. These have not been studied or rated to determine their overall scenic value. Currently, there are no land use controls to ensure preservation of scenic areas.

#### PUBLIC FACILITIES

1. Water Supply. Approximately 50% of the Town, or 3,050 people, are served by the Town's water system. Only 1 of the district's 3 wells meets all water quality standards (one is not being used). The current supply would not be adequate to meet projected future demand unless the unused well is put back into service or a new well is developed. In fact, the current well is nearing capacity. With an additional supply, the saturation population of the district is about 6,000 people. There are continuing concerns about the future quality of the aquifer underlying the downtown. There are a number of threats to this aquifer, including underground petroleum storage tanks.

Finally, the Town has no control over the policies or investment decisions of the Water District, particularly as they relate to and affect the rate and location of the Town's future population. The District currently has no long range plan for servicing its population.

2. Sewage Treatment. The Town's sewer system serves approximately 45% of the Town's population. The sanitary sewers are completely separate from the storm sewers, and the collection system as a whole has sufficient capacity to handle current and future flows for the foreseeable future. The treatment plant provides only primary treatment and is currently at 80% of capacity. If all of the approved and pending developments are constructed, the plant will be at capacity. The district has prepared plans for the expansion of the plant and the addition of secondary treatment in 1992. If funded, it will then meet the Town's needs through the year 2001.

The costs of extending sewers to new developments have traditionally been the responsibility of developers. The Town could influence the location of new developments by

extending sewer lines to specific areas, but with the Town's other municipal needs, the costs would be prohibitive.

Given the variable nature of South Berwick's soils for subsurface sewage disposal and the increasing extent of rural housing development, it is important that the Town carefully regulate subsurface sewage disposal. A large community system serving 100 families in the Woodland Hills section has failed several times. The problems created by this system point to the need to avoid such systems in the future.

3. Schools. SAD 35 (South Berwick and Eliot) is in a crisis situation with respect to school enrollment. The district is currently using 14 portable classrooms. A 15% increase in school enrollment is projected by 1993/94, but the district does not appear capable of absorbing the additional enrollment. The State has approved construction of 2 early childhood centers (one in South Berwick, one in Eliot). The district is applying for State approval for an addition to the high school, but the earliest it could be built is 1992. Thus, school capacity is definitely a limiting factor for future residential development.
4. Transportation. Traffic volumes on the Town's arterials and collectors has increased dramatically. The Average Annual Daily Traffic count on Route 236 at the Great Works River has grown threefold between 1975 and 1987, rising from 3,215 to 10,330. Traffic on Route 4 at the Berwick line has doubled, from 3,478 to 7,560 during the same period. The Town does not have the power to reduce these growing traffic volumes, as most of it is through traffic.

The lack of parking and traffic congestion continue to be serious problems in the downtown. Traffic congestion limits the extent to which the downtown can be further developed. It has also forced the Town to look at other areas to provide for future commercial growth, in contrast to the regional policy of concentrating future commercial development in existing downtowns.

Some of South Berwick's highest priorities for future transportation improvements include:

- a) The establishment of a long-range plan for the Town's local roads, which would include obtaining more data and analyzing local road capacity and local problems;
- b) Main Street at Berwick and Butler Street;
- c) Portland Street at Agamenticus Road;
- d) Main Street at Portland Street; and
- e) Construction of a Route 4/236 bypass.

5. Solid Waste. South Berwick operates a transfer station with North Berwick, from which household wastes are taken to the MERC incinerator in Biddeford. However, there are no local or regional facilities for the disposal of construction debris, demolition debris, stumps, white goods, or other nonburnable items. The lack of a permanent solution to the solid waste disposal problem will probably not limit the Town's projected growth rate. However, it is an area of concern warranting municipal attention on a continuing basis.

6. Emergency Services. Based on national standards, South Berwick's police department is understaffed. During the 1987-88 period, the Town experienced a 20% increase in the crime rate which was directly related to growth in rural areas. The Town's police force will have to be expanded at some point to serve the growing population.

Fire protection is provided by a part-time fire chief and a volunteer department working out of a central station. Planned construction of the new safety complex will provide needed space for the department. The Fire Department appears to have sufficient capacity to serve South Berwick's growing population.

The South Berwick Rescue Squad, which has two full-time employees, provides rescue services to the Town. The Squad needs a new ambulance and more volunteers. This need will become more acute as the Town continues to grow.

7. Municipal Buildings. Implementation of the capital improvements program will address a number of deficiencies. The plan calls for the renovation of the municipal building, construction of a public safety building for fire, police and ambulance, construction of a new garage and the purchase of land adjacent to it. The transfer station will have to be expanded in 1994-95.

#### OUTDOOR RECREATION

South Berwick is well below average in the amount of land it has set aside for parks, boating sites and historic places. Among the 116 towns with populations over 2,500, South Berwick ranks 109th in terms of recreational acreage per 1,000 people. Deficiencies include basketball courts, playgrounds, a bicycling area, a natural ice skating area, a nature study area, a recreation center, a senior citizens center, a public swimming beach, volleyball courts, and a golf driving range. Obviously, the Town does not have sufficient outdoor recreation facilities to serve the projected population. An effort will have to be undertaken to correct existing deficiencies, based on the needs of South Berwick's residents.

## AGRICULTURE, FORESTRY AND OPEN SPACE

While South Berwick has a number of active farms, agriculture is not a dominant feature of the landscape or of the Town's economy. There are, however, a number of forested parcels classified under the Tree Growth Tax Law.

Despite a substantial growth rate during the 1090's, extensive areas of South Berwick have been retained for agriculture, forestry, and open space. These areas have been protected from development in part by restrictive zoning provisions which apply to the R-3 and R-4 districts. The continuation of existing zoning policies, which discourage incompatible development, will continue to reserve large areas for agricultural, forestry, and open space purposes. Likewise, land use controls such as clustering will help ensure that these areas are preserved as land is developed.

## HISTORIC, ARCHAEOLOGICAL RESOURCES

1. Archaeological Sites. There is one prehistoric site in South Berwick located on the Hamilton House grounds. Areas of potential archaeological significance include the shorelands of the Salmon Falls River, Leighs Mill Pond, the Great Works River up to Hooper Sands Road, Knight Pond and a wetland south of the York Woods Road and extending into Eliot. There are at least 14 historical archaeological sites (dating as far back as the 1600's). Except for areas adjacent to the Great Works River, there are no known or potential sites in the areas previously identified for future growth. Nevertheless, existing ordinance provisions do not ensure the protection of known or potential archaeological areas.
2. Historical Resources. There are 6 structures on the National Register of Historic Places. In addition, there are a number of other structures which have been inventoried, and an extensive survey has been completed in the downtown. A detailed survey is underway on Liberty Street, and the Town has recently appropriated funds to complete a survey of all historic properties in Town. Most of the sites are in or near the downtown, where minimal development is expected to occur.

## ECONOMY

Eighty percent of South Berwick's residents commute to jobs outside the Town, mostly in the Kittery/Portsmouth area. The Town's per capita retail sales slightly exceed figures for the County and State. There is not sufficient land in the downtown to allow for future commercial growth, yet some of the residential areas north of the downtown are inappropriately zoned for commercial development.

Given the economic vitality of the community and the low unemployment rate, there is no need to attract heavy industry to South Berwick. However, the Town's economy could be improved by the addition of clean industries which do not create air or water pollution, traffic congestion, noise, odor, or other undesirable effects. The Town does not have a site plan review ordinance to ensure high quality commercial and industrial development.

FISCAL CAPACITY.

The Town has a relatively stable tax rate, although it has fallen behind in the provision of some services such as outdoor recreation opportunities and police protection. The Town will have to increase some services, such as police protection and schools, to serve the projected population. South Berwick may also have to look for new sources or revenues and/or explore new opportunities for reducing municipal costs.

A maximum 3% imposed cap on the tax rate will not allow the Town to keep pace with its capital expenditure needs as outlined in the capital improvements program.

*What might these be?*

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## SECTION 11. GOALS AND POLICIES

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Section 11 sets forth the nine State planning goals, as well as a policy rationale which sets the stage for the policies which follow. The policies set forth in Section 11 were derived from the data, issues, and concerns set forth in the inventory section of this Plan.

The development of South Berwick's policies involved a great deal of citizen participation. Overall coordination was provided by a Steering Committee comprised of one Town Council member, a Planning Board member, and two citizens at large. The four subcommittees that developed the overall inventory also prepared policies for consideration by the full Comprehensive Plan Committee. While the Town Planner and the Town's consultant, Maine Tomorrow, provided some assistance, the subcommittees worked independently to craft their respective policies. The Town Planner and Consultant then worked with the full Committee to resolve conflicts and suggest additional areas for policy development.

Section 11 sets forth the goals and policies, while Section 12 sets forth the implementation strategies and future land use map.

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### LAND USE

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#### Policy Rationale

South Berwick's development and land use patterns are a reflection of regional ones. Our economic and ecological systems have been and still are interdependent upon our neighbors. Historically towns developed around a village where business and industry provided jobs and services. The surrounding areas were farms and open space. It made economic sense to locate the village at the intersection of transportation networks. It was practical to locate farms where land prices were low and soils adequate for farming.

This development pattern continued until the 1980's. It has reinforced the fabric of our community as it stands today. We have both a village with an urban character and also an abundance of open and at times wild land.

With the slow, and at times negative growth rate of the community, land development followed traditional patterns. The

current demand for land and its cost has forced development in areas of the town that were never traditional building areas.

The Town survey asked residents how they wished the Town to develop. Not surprisingly, the vast majority wished to see the "town remain as it is". Obviously this is not realistic. More realistic was the other strong response which was to "create high density areas balanced with low density areas" and to "concentrate growth where it is now".

In order to maintain the rural character of the Town and follow traditional development patterns, we must provide incentives to build within the village area while ensuring that this development is integrated into the existing fabric. We must also create economic incentives for land owners who do not wish to develop. In the same vein we must also develop clear guidelines for those who do wish to develop.

Development has, by and large, been good for the Town. The history of the Town reflects many periods of strong growth which brought about economic and cultural prosperity to South Berwick. Our challenge is to encourage development that strengthens and reinforces the Town's fabric.

The Town must encourage innovative development. We must encourage business to strengthen the economic base. We must encourage a system of green spaces, not only in rural sections of Town but linking the Village to the outlying portions of Town through cluster development and conservation/recreation land. Land use patterns in South Berwick are continually changing. We must keep pace with these changes by directing growth.

**GOAL:** TO ENCOURAGE ORDERLY GROWTH AND DEVELOPMENT IN APPROPRIATE AREAS OF THE COMMUNITY, WHILE PROTECTING THE STATE'S RURAL CHARACTER, MAKING EFFICIENT USE OF PUBLIC SERVICES AND PREVENTING DEVELOPMENT SPRAWL.

It shall be the Town's policy to:

1. Concentrate areas of increased density growth near water and sewer.
2. Promote infill development (infill development is the use of vacant land in built up portions of Town).
3. Seek a level of growth that corresponds to the Town's ability to provide services.
4. Discourage large subdivisions in the outlying areas of the community.
5. Expand some of the current high density residential areas to accommodate further growth.

6. Develop standards for the rural zones which avoid scattered strip development along county roadsides.
7. Protect environmentally sensitive lands, such as deer yards and aquifers, and severely restrict development where there are significant development limitations, including wetlands, steep slopes, and flood plains.
8. Ensure that, as land is developed, networks for open space, transportation, and wildlife are developed and maintained.
9. Discourage roadside sprawl by preserving greenbelts and by developing buildings and parking areas in a concentrated manner, which conserves land along arterials and major collectors to maintain scenic character.
10. Promote a mix of housing types which reinforce and reflect existing neighborhood character.
11. Locate commercial and industrial areas in those areas consistent with both local and regional development patterns.
12. Ensure that mechanisms are developed to oversee implementation of the Comprehensive Plan on a continuing basis.

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## HOUSING

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### Policy Rationale

South Berwick is fortunate in having a varied supply of housing stock. During the 1980's however, the vast majority of new construction was for single-family homes. The Town's housing character ranges from large older homes in established neighborhoods to large acreage farms. Most multi-family housing units are located in the village area.

The Town would like to ensure that the diversity of housing types are maintained. There is also a strong desire to maintain the character of existing neighborhoods. Blending these sometimes conflicting goals promises to be a complex issue.

The Town has also indicated concern for the issue of housing affordability. Data seems to indicate that both home ownership and rental affordability is a problem for low and moderate income South Berwick residents. Unfortunately, the degree of the problem is somewhat unclear, primarily due to Census data that is now 10 years old. This problem in defining the extent of the affordability problem makes it more difficult to promote a specific policy and action plan for affordable housing. The new Census data will hopefully set the stage for this strategy. For now, the Town will continue to promote all forms of housing.

GOAL: TO ENCOURAGE AND PROMOTE AFFORDABLE, DECENT HOUSING OPPORTUNITIES FOR ALL SOUTH BERWICK RESIDENTS

It shall be the Town's policy to:

1. Develop a housing strategy that sets forth regulatory and non-regulatory techniques designed to provide for a range of affordable housing opportunities within South Berwick.
2. Ensure the Town's regulations and procedures encourage the development of affordable housing in order to achieve State goals.
3. Amend affordable housing policies as new information becomes available (i.e. 1990 Census).
4. Explore participation in the development of grants for developing affordable housing and rental rehabilitation.
5. Allow for a more flexible approach in siting elderly housing.

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NATURAL RESOURCES

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Policy Rationale

South Berwick has an abundance of water resources. These include 2 large rivers, 5 ponds, numerous brooks and streams and countless wetlands. Water quality varies among all these features. Common to most water resources, however, is the limited amount of development which is impacting these areas. This may change, however, as development opportunities abound near the ponds and rivers. An opportunity exists to protect the water quality around these water resources even as development takes place. Residents appear to strongly favor preserving the waterways in Town for their recreational and scenic benefits.

The Town has also grown to realize the problems of ground water quality. Many residents listed this issue as a prime concern. Numerous potential hazardous waste generators have been identified as have the aquifers which serve a good portion of the population. Protection of this water quality must be an important part of the town's planning process.

It is vital to the Town of South Berwick to wisely manage all water resources, not only within the Town boundaries but for those resources which cross town boundaries. The preservation of the Mt. Agamenticus region, the protection of the Salmon Falls and Great Works Rivers and the protection of ground water quality in aquifers which cross Town lines are all important planning considerations for the future.

Critical natural resources have been identified by Inland Fisheries and Wildlife, The Nature Conservancy and the State Planning Office. Wildlife resources, rare and endangered species and important geological and natural features are all part of the natural heritage of South Berwick. To a degree they help define the so called "rural character" of the Town. Residents have indicated they value these features. Many of these features have yet to be impacted by land use changes in the town - even during the recent real estate boom.

The 1986 Comprehensive Plan did not address natural resources in South Berwick. It is now considered essential that our critical natural resources be wisely managed and protected for recreational enjoyment and for maintaining species diversity and abundance. To accomplish this it is considered critical that the nature and intensity of development be based on the land's ability to accommodate that development.

GOALS: TO PROTECT THE QUALITY AND MANAGE THE QUANTITY OF THE STATE'S WATER RESOURCES INCLUDING LAKES, AQUIFERS, GREAT PONDS, ESTUARIES, RIVERS AND TIDAL WATERS.

TO PROTECT THE STATE'S OTHER CRITICAL NATURAL RESOURCES, INCLUDING WITHOUT LIMITATION, WETLANDS, WILDLIFE AND FISHERIES HABITAT, SCENIC VISTAS, AND UNIQUE NATURAL AREAS.

Water Resources: Ground Water

It shall be the Town's policy to:

1. Continue the identification of potential ground water resources.
2. Continue to identify and monitor threats to ground water resources.
3. Work on cooperative efforts with surrounding communities on issues related to aquifer protection.

Water Resources: Surface Water

It shall be the Town's policy to:

1. Establish a system to continually monitor surface water quality for the purposes of maintaining or upgrading that quality.
2. Ensure that water quality is sufficient to provide for the protection and propagation of fish, shellfish and wildlife and provide for recreation in and on the water.

3. Require practices that minimize "run-off", soil erosion, and sedimentation which may result in the excess nutrients being added to surface waters.
4. Ensure that development is located on land that is capable of supporting on-site water and septic disposal systems in areas where no municipal sewer or water services are available.
5. Direct development to areas with appropriate soil, slope and drainage conditions.
6. Work on cooperative efforts with surrounding communities on issues related to watershed planning.
7. Educate the public on State and Federal laws governing water resources.
8. Develop alternative contingency plans for the future water supply needs of the community.

Critical Resources: Topography, Geology and Land Cover

It shall be the Town's policy to:

1. Direct terrain alteration and other development away from land forms with slopes greater than or equal to 15%.
2. Ensure that new development shall be designed to be compatible with existing topography and to preserve natural land cover and vegetation.

Critical Areas: Floodplains

It shall be the Town's policy to:

1. Continue to maintain the current floodplain standards.

Critical Areas: Soils

It shall be the Town's policy to:

1. Evaluate land use with respect to physical, chemical and biological characteristics of soils, such as depth of water table, texture, permeability, slope, etc., as defined by the Soil Conservation Service and Department of Agriculture.

Critical Resources: Wetlands

It shall be the Town's policy to:

1. Map and identify wetlands based on soils and vegetation, while recognizing the role and implications of wetland loss.

2. Regulate the discharge of dredged or fill material into all waters of South Berwick, including wetlands.
3. Afford adequate protection for wetlands through buffer zones as currently defined in the Resource Protection and Shoreland Zoning sections of the Town Zoning Ordinance.
- \*4. Define those activities for which the draining, filling and disposal into or on a wetland is considered unacceptable.
- \*5. Develop reasonable performance standards for the use of wetlands and their adjacent areas.

Critical Resources: Wildlife

It shall be the Town's policy to:

1. Work for the completion of further studies and investigation of additional wildlife resources and to establish the actual value of these and existing resources as documented by Inland Fisheries and Wildlife.
2. Consider activities which involve the draining, filling and waste disposal of low, moderate and high value wetlands (as defined by IFW) as unacceptable.
3. Protect the riparian habitat of all high and moderate value wetlands from development and modification such as filling and clear cutting.
4. Preserve deer wintering areas (as currently defined) as significant natural resources and also give further investigation to establishing the actual value of these areas as deer yards.
5. Establish a riparian buffer zone within wildlife corridors defined as important by IFW, such as the Salmon Falls River.

Critical Resources: Critical and Natural Heritage Areas

It shall be the Town's policy to:

1. Update inventories of critical and natural areas and expand resource protection areas to include those areas not currently identified.
2. Continue to designate shoreland, floodplains and slope areas as currently defined in the Zoning Ordinance.
3. Ensure that recreational and/or commercial uses permit and promote the area's uniqueness for natural, scenic or historic value.

4. Take a lead role in working with landowners to promote public use and access to natural areas where appropriate to the landowner and the resource.
5. Remain actively involved with the preservation of the Mount Agamenticus region.
6. Promote joint efforts with adjoining towns to protect critical natural resource areas which cross town boundaries (such as the Great Works River, the Salmon Falls River, and aquifers).

Critical Resources: Scenic Areas

It shall be the Town's policy to:

1. Require the preservation of identified scenic views.
2. Undertake a more complete inventory of the Town's scenic resources while allowing for public input into the development of the inventory.

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PUBLIC FACILITIES

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Policy Rationale

There is a strong desire among Townspeople to continue the present pattern of growth, concentrating development near available water and sewer facilities. While accomplishing this, there is a need to ensure that these facilities keep pace with growth in the community and also meet applicable environmental standards.

Water and sewer extensions and capital investments need to be tied closely to the land use planning process. Such coordination would be better accomplished with all entities under one roof and working in a common direction. For land use planning purposes the Town considers it crucial that the water and sewer districts be incorporated into Town government. The factors which resulted in the establishment of these separate districts no longer exist. Cost savings could also result from this restructuring.

Solid waste is of increasing concern to Townspeople. Residents have indicated a desire to continue recycling and if need be, charge fees to enhance recycling efforts. The disposal and recycling of solid waste will require a comprehensive effort, not only in South Berwick, but the region as well. The effort will need to focus on cost-efficient and environmentally sound waste disposal - particularly in light of the fragile economic situation at MERC.

There is a need to ensure that services from Fire/Rescue/Police keep pace with a growing population. All three services rated highly on the survey. The School system also needs to plan carefully for these population induced capital needs.

The issue of transportation perhaps best graphically illustrates the changing character and problems associated with rapid growth in South Berwick. It was noted in the survey as being of prime concern to most townspeople - probably because it has become one of the Town's most visible problems. The bottleneck of Route 4 and 236 will indeed grow worse as South Berwick and surrounding communities continue to grow. The traffic situation makes planning for industrial/commercial and residential growth in the village area difficult. Any solutions would be expensive and require regional cooperation. The remaining portions of the Town's transportation networks will also require capital expenditures in the near future. These will need to be tied closely to the land use planning process.

Finally, and perhaps most importantly, the community needs to be assured that new development does not overtax community services and facilities and pays its share of the costs to make the capital improvements demanded by that development.

GOAL: TO PLAN FOR, FINANCE AND DEVELOP AN EFFICIENT SYSTEM OF PUBLIC FACILITIES AND SERVICES TO ACCOMMODATE ANTICIPATED GROWTH AND DEVELOPMENT.

Public Facilities: Water Supply

It shall be the Town's policy to:

1. Establish a framework by which to work more closely with the South Berwick Water District on issues related to planning and water quality.
2. Ensure that all water supplied by the South Berwick Water District meets or exceeds Maine State water quality standards
3. Take appropriate steps to clean up and contain existing threats to the present and future water supply.
4. Emphasize conservation to the same degree as the development of new water sources.
5. Develop a plan to accommodate future commercial/industrial and residential growth.
6. Ensure that the municipal water system can meet future fire control needs.

Public Facilities: Sewage Treatment

It shall be the Town's policy to:

1. Establish a framework by which to work more closely with the South Berwick Sewer District on issues related to planning and water quality.
2. Discourage the use of large community septic systems in new developments.
3. Continue to ensure that lots are of sufficient size to accommodate on-site, subsurface sewage disposal systems.
4. Ensure that future users of the sewage treatment system pay their fair share of the costs of upgrading and expanding the system.
5. Affirm, as a policy, that sewage treatment through the South Berwick Sewer District's facilities, is preferred over subsurface sewage disposal as the more environmentally sound means of disposing of sewage.
6. Examine local options to strengthen the Maine State Plumbing Code in regard to sub-surface disposal in areas here it is considered ineffective.

Public Facilities: Schools

It shall be the Town's policy to:

1. Open a dialogue with SAD 35 to work on mutual, long term planning goals.

Public Facilities: Transportation

It shall be the Town's policy to:

1. Develop a comprehensive plan for routine maintenance and improvement of Town roads.
2. Consider safety for vehicular traffic and pedestrians, improvement of existing flows, impact on residential areas and impact on the environment when any road building or improvements are to take place.
3. Require that all commercial and residential developments provide adequate parking and roadways.
4. Encourage the development of additional parking facilities for the central commercial district.
5. Encourage alternate means of transportation (i.e. bicycles, walking, car pools, public transportation).

6. Increase efforts to work on regional strategies to alleviate the problems of traffic congestion on Routes 4 and 236.
7. Develop plans for a limited access bypass road for through traffic while discouraging commercial or extensive residential development along the bypass.

Public Facilities: Solid Waste

It shall be the Town's policy to:

1. Provide facilities and services for the disposal of all residential waste, including household hazardous waste.
2. Plan for the maximum development and implementation of a comprehensive recycling and composting program.

Public Facilities: Emergency Services

It shall be the Town's policy to:

1. Continue a centralized, consolidated dispatch center for fire, ambulance and police.
2. Ensure that adequate supplies of water are available for fire fighting purposes in areas not served by the South Berwick Water District.
3. Ensure that Police, Fire and Rescue services keep pace with the growing population.

Public Facilities: Library

It shall be the Town's policy to:

1. Seek to attain, maintain and if possible exceed the Minimum Standards for Public Library Services as provided for by the Maine Library Association for libraries serving a population of 5,000 - 9,999.

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OUTDOOR RECREATION

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Policy Rationale

As South Berwick becomes more developed, and ownership patterns change, issues concerning access, conservation and outdoor recreation become more complex. Many townspeople have grown accustomed to using neighbors' properties for their recreational pursuits. These opportunities will likely diminish in the future and with it a part of South Berwick's "rural character" may be lost. The Town will need to become more active in the generation of access and opportunities for recreation

(both active and passive) to ensure that the activities that residents have enjoyed for years are not lost. Simply zoning land for limited use does not and should not ensure the public the benefits of the use of someone's property.

The Town will need to establish a well rounded plan for the preservation of open spaces and recreational opportunities based on defined criteria. A firm plan for the establishment of active recreational facilities as well as for undeveloped open spaces should also be undertaken. In sum, it will be up to the Town to plan for these recreational benefits for the present and for their children.

GOAL: TO PROMOTE AND PROTECT THE AVAILABILITY OF OUTDOOR RECREATION OPPORTUNITIES FOR ALL MAINE CITIZENS, INCLUDING ACCESS TO SURFACE WATERS.

It shall be the Town's policy to:

1. Develop and implement a long term plan for recreation lands and facilities based on identified needs, aimed at overcoming existing deficiencies and providing a wide range of recreational opportunities to the citizens of South Berwick.
2. Implement a policy for the maintenance and use of all existing and future facilities.
3. Better identify existing public lands and increase public awareness of the potential recreational use of these lands.
4. To acquire recreational and conservation lands through a broad based strategy including acquisition, land donations and easements. Particular attention should be paid to providing tax relief to owners of potential recreational/conservation lands, providing access to water bodies, and extending greenbelts through the Town.
5. Support programming of a cultural nature with funds, including but not limited to private donations and volunteers.
6. Seek grants, state assistance and volunteers to reduce the costs of projects and programs to the Town.

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## AGRICULTURE, FORESTRY AND OPEN SPACE

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### Policy Rationale

"Given that open space has a value unto itself that both includes and supersedes its value for human utility, preservation of that space is understood to confer protection from undue human intervention and interference. Its absolute value warrants acknowledgement as being inseparable from, and commensurate with the value of life itself."

The results of the June 1989 citizen survey (see table ) indicate a deep concern about the loss of open space, and the corresponding loss of "rural character".

While rural character is often difficult to define, the importance of its decline is manifested in the survey by a majority desire to preserve open space, to protect wildlife habitat, and to develop parks and greenbelts.

**GOALS:** TO SAFEGUARD THE TOWN'S AGRICULTURAL, FOREST AND OPEN SPACE RESOURCES FROM DEVELOPMENT WHICH AFFECTS THOSE RESOURCES.

TO PRESERVE THE STATE'S HISTORIC AND ARCHAEOLOGICAL RESOURCES.

It shall be the Town's policy to:

1. Require forest management practices that assure a sustainable forest resource.
2. Require land use development practices that preserve expanses of open space and forest land.
3. Encourage the retention of unspoiled rural surroundings in close proximity to populated areas.
4. Work to preserve through a system of easements, set asides and acquisition, lands which contain unique natural resource values.

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### HISTORIC, ARCHAEOLOGICAL RESOURCES

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It shall be the Town's policy to:

1. Provide oversight and seek funding for preservation of historical buildings, sites and landmarks.

2. Provide legal protection and oversight and to fund preservation of archaeological resources.

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## ECONOMY

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### Policy Rationale

The tax base of South Berwick is almost entirely residential. To this date, few new commercial or industrial enterprises have moved to the Town. The citizens in Town appear to be in favor of developing more of an industrial base.

Land for commercial uses is almost depleted under current zoning. The Town's current industrial park has yet to attract any clients. The traffic situation downtown complicates the location of business and industry near the village. It seems clear the Town needs to reevaluate the present commercial/industrial framework. The important part of the process will be to ensure that commercial/industrial development can take place without compromising the Town's desire to remain "rural" and to avoid "strip" development.

GOAL: TO PROMOTE AN ECONOMIC CLIMATE THAT INCREASES JOB OPPORTUNITIES AND OVERALL ECONOMIC WELL-BEING.

It shall be the Town's policy to:

1. Conduct studies to determine the desirability of South Berwick for commercial/industrial growth.
2. Establish additional areas for commercial development that will not aggravate existing traffic congestion problems.
3. Establish additional areas outside of the current industrial park for future industrial development.
4. Encourage the establishment of clean industries in South Berwick that will contribute to the region's economy without creating air pollution, water pollution, traffic congestion, noise, odors, or other undesirable effects.
5. Continue to avoid strip commercial development in South Berwick.
6. Continue to allow a range of home occupations that does not detract from residential neighborhoods or the rural character of South Berwick.
7. Ensure high quality commercial and industrial development through the site plan review process.

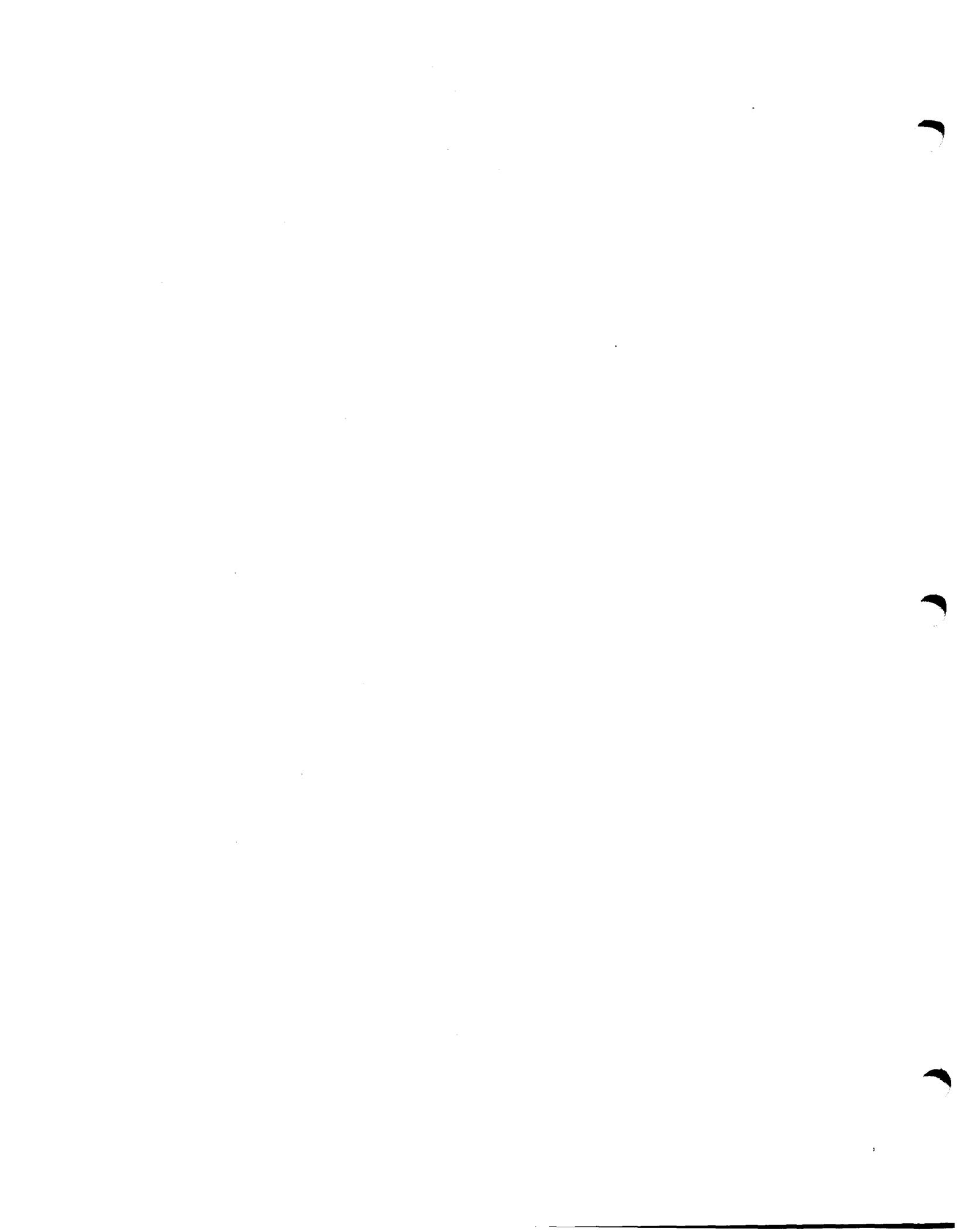
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TOWN FINANCES

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It shall be the Town's policy to:

1. Actively seek new non-tax sources of revenue and other methods of financing growth.
2. Maintain a tax rate which is consistent with maintaining the current levels of service.



## SECTION 12. IMPLEMENTATION STRATEGIES

Section 12 sets forth South Berwick's implementation strategies as well as the Town's future land use map. The overall State goals, and the Town's policies, have also been included so that the relationship between the state goals, the policies, the strategies and the implementation schedule can be clearly seen (see Section 11 for policy rationale). Section 12 also contains the Capital Investment Plan.

Section 12 is the culmination of the Comprehensive Plan Committee's efforts to prepare a Comprehensive Plan that addresses the requirements of the State's growth management act. It is based on the inventory, the summary of findings contained in Section 10, and the work of the subcommittees to formulate long-range strategies for the community. It is anticipated that this Plan, as set forth in Section 12, will provide an overall blueprint for the future growth and development of the community over the next 10 years, and that it will provide a sound basis for additional inventories, plans, and investments needed in the community.

This Plan represents a vision for the future of the community, but one which is based on the realization that as conditions change and new information becomes available, adjustments will have to be made to best serve the interests of the community. Accordingly it is anticipated that the Plan will be revised and updated from time to time.

POLICIES AND IMPLEMENTATION STRATEGIES

POLICIES		STRATEGIES	
A. LAND USE		Responsibility	Year
1. Concentrate areas of increased density growth near water and sewer.	Maintain allowable residential densities in the current R-1 District.	PB, Council	1991
2. Promote infill development (infill development is the use of vacant land in built up portions of Town).	Examine the use of a Transfer of Development Rights Program which would encourage the use of land in the R-1 and R-2 districts.	Town Planner	1993
3. Seek a level of growth that corresponds to the Town's ability to provide services.	Refine and renew the building permit limitation ordinance, tying it to availability of Town services. Provide additional points for those permits applied for within the Town's designated growth areas. Adjust number of yearly permits based on provision of additional school space, the upgrading of the South Berwick Sewage Treatment Plant, the location of a new well for the South Berwick Water District, status of the Capital Improvements Plan, and other factors as deemed significant by the South Berwick Planning Board and Council.	Council	1991
4. Discourage large subdivisions in the outlying areas of the community.	Refine the Subdivision Phasing requirements based on subdivision size, location, current growth rate and availability of services.  Amend the Subdivision Ordinance to require two plans to be filed when a development is proposed in the R3, R4 and R5 districts, as well as the expanded portion of the R2 district. Plans shall present both a clustered approach to the subdivision of land as well as a plan showing normal lot sizes in the district. The Planning Board shall have the option of choosing the plan which is most representative of the principles and policies of the Comprehensive Plan.  Enact a road access limitation amendment to the Sub-division Ordinance for outlying areas of the community that would:  Require that lots within a subdivision front on a road created by the developer, on a street in an approved subdivision, or on a private way.  Develop a point system to regulate lot size in the R5 district to ensure that any new development will take place only in the most suitable areas - see Future Land Use narrative.	Planning Board Council	1991

POLICIES	STRATEGIES		
5. Expand some of the current high density residential areas to accommodate further growth.	Expand high density areas in accordance with the recommendations of the Land Use Map. This includes extending the R-1 and R-2 districts. Lot standards for these zones will be lowered upon the provision of water and sewer to these areas. Ensure that new subdivision activity within the expanded R1 district is in keeping with the architectural integrity of the area through a site plan review process.  Periodically review the boundaries and minimum land requirements of each zoning district.	PB, Council	1991
6. Develop standards for the rural zones which avoid scattered strip development along country roadsides.	Maintain the R-3 and R-4 districts as zoning categories subject to more restrictive standards to protect rural character - See Appendix. Establish an R5 zone aimed at preserving natural resource systems within the Mt. Agamenticus area. Regulate uses according to their environmental impact.  Review road standards to see if road widths and requirements for sidewalks could be reduced. Utilize common driveways and require where appropriate flag lots to preserve open space adjacent to roadside.	PB, Council	1991
7. Protect environmentally sensitive lands such as deer yards and aquifers, and severely restrict development where there are significant development limitations, including wetlands, steep slopes and flood plains.	Review town ordinances to ensure they are consistent with the Natural Resources Protection Act (38 MRSA 400-A et. seq.), the Endangered Species Act (12 MRSA 7751 et. seq.), the Mandatory Shoreland Zoning Act (38 MRSA 435 et. seq.) and any other applicable state or federal regulations.  Develop a program to help landowners protect and preserve wildlife habitat, and help them take advantage of conservation programs to preserve undeveloped lands.  Continue existing development prohibitions on building in flood plain areas.	Planning Board  Conservation Commission	Ongoing  Ongoing
8. Ensure that, as land is developed, networks for open space, transportation, and wildlife are developed and maintained.	Amend the Subdivision Ordinance to require developers to identify the exact boundaries of wetlands by the use of a wetlands consultant as chosen by the Planning Board.  Amend the Zoning and Subdivision Ordinances to require that important natural resources, as defined in this Plan, are retained as land is developed. These resources and networks should be tied into a plan for open space.	PB, Council	1991

POLICIES

STRATEGIES

<p>9. Discourage roadside sprawl by preserving greenbelts and by developing buildings and parking areas in a concentrated manner which conserves land along arterials and major collectors to maintain scenic character.</p>	<p>Adopt a Site Plan Review ordinance which utilizes the design principles contained in the book, "Dealing with Change in the Connecticut River Valley: A Design Manual for Conservation and Development." This might include requiring parking in back, native vegetation in front, and minimal access points.</p>	<p>PB, Council - -</p>
<p>10. Promote a mix of housing types which reinforce and reflect existing neighborhood character.</p>	<p>Prepare and adopt a Site Plan Review Ordinance. Continue to allow a diversity of housing types, including single family homes on large and small lots, apartment additions for older homes on sewer, duplexes and attached housing, multiple and apartment housing, mobile home parks, manufactured housing on single lots, and group homes for the elderly and handicapped. Continue to ensure that adequate parking is provided to serve residential uses.  Limit mobile home parks to specific areas of Town.</p>	<p>PB, Council PB Ongoing  PB, Council 1991</p>
<p>11. Locate commercial and industrial areas in those areas consistent with both local and regional development patterns.</p>	<p>Redefine industrial uses, denoting categories for light and heavy industrial uses. Rezone land along Route 236 for commercial and industrial use conditional upon a "corridor study" along Route 236 and the development of strict performance standards identifying limitations, uses, access and impacts of such a rezoning. Consider the use of contract or conditional zoning for new industries.  Maintain and expand the commercial zone in the village as shown on the Land Use Map.  Rezone areas that are zoned commercial but are predominantly residential in use.  Locate industrial development near water and sewer without impacting the village district.  Reevaluate the location of the existing Industrial Park and the uses in that park.  Require that all non-residential development be subject to Site Plan Review.</p>	<p>PB, Council 1991  PB, Council 1991  PB, Council 1991  PB, Council 1991  PB, Council 1991  PB, Council 1991</p>

POLICIES

STRATEGIES

12. Ensure that mechanisms are developed to oversee implementation of the Comprehensive Plan on a continuing basis.

Establish an ongoing comprehensive plan committee to oversee the implementation of the comprehensive plan. Review and update the population section of the comprehensive plan using 1990 Census data. Monitor growth in neighboring communities and coordinate planning efforts whenever possible. Continue active town involvement in the Southern Maine Regional Planning Commission. Establish ongoing contact with planning boards in adjacent communities.

Council	1990
Comp. Plan Committee	1992
Council	Ongoing
Council	Ongoing
Planning Board	Ongoing

B. HOUSING

1. Develop a housing strategy that sets forth regulatory and non-regulatory techniques designed to provide for a range of affordable housing opportunities within South Berwick.

Examine existing zoning and subdivision regulations for requirements that may be unnecessary, such as road standards in rural subdivisions. Incorporate the following provisions into the subdivision regulations:

- allow developments without curbs
- allow one-piece, rolled curbs
- eliminate requirements for sidewalks on both sides of the street
- allow sidewalks to be replaced with paths
- allow natural drainage systems
- allow curvilinear storm pipes
- allow plastic pipe
- allow road widths to vary with traffic volume (allow roads with less than 24 feet of pavement)

Planning Board	1991
Planning Board	1991

Establish time limits for the review and approval of subdivisions  
 Create a one-stop permit system where multiple local reviews are necessary  
 Utilize 1990 Census data to develop a long-range affordable housing strategy.  
 Seek to increase the efficiency of the development approval process by amending the Subdivision Ordinance to clarify procedures.  
 Identify and update, on a continual basis, the available housing stock.

Planning Board	
PB, Council	
Town Planner	1992
PB, Council	1991
CEO	Ongoing

POLICIES

STRATEGIES

	<p>Establish as policy that all tax foreclosed properties be examined for their use as land for affordable housing developments or mobile home parks within the existing limitations of the zone in which they are located.</p>	PB, Council	Ongoing
<p>2. Ensure the Town's regulations and procedures encourage the development of affordable housing in order to achieve state goals.</p>	<p>Review and, where appropriate, incorporate into the Town's ordinances provisions aimed at encouraging the availability of affordable housing.</p> <p>Ensure that there is land in the high density zone which can support construction of affordable housing, as defined in Title 30-A MRSA Sections 4311-4344.</p>	PB, Council	Ongoing
<p>3. Amend affordable housing policies as new information becomes available (ie 1990 census).</p>	<p>Review the affordable housing policies of the Comprehensive Plan when 1990 census information becomes available.</p>	Comp. Plan Committee	1992
<p>4. Explore participation in the development of grants for developing affordable housing and rental rehabilitation.</p>	<p>Participate in the new state bond issue program aimed at encouraging the construction of affordable housing.</p>	Council	1991
<p>5. Allow for a more flexible approach in siting elderly housing.</p>	<p>Amend the Zoning Ordinance to allow increased densities in the R-1 District for elderly housing.</p> <p>Amend the Zoning Ordinance to allow accessory apartments for elderly family members.</p>	PB, Council	1991
<p>C. WATER RESOURCES: GROUND WATER</p>			
<p>1. Continue the identification of potential ground water resources.</p>	<p>Gather well log data from newly dug private wells to help define bedrock well information.</p> <p>Incorporate into the town's information resources information collected as part of the Hooper Sands Road Study.</p>	CEO, Comp Plan Committee	1990
<p>2. Continue to identify and monitor threats to ground water resources.</p>	<p>See Public Facilities: Water Supply 1 (adopt aquifer protection ordinance, review water tests).</p> <p>Inform building permit applicants of the need for water quality testing.</p>	CEO	Ongoing
<p>3. Work on cooperative efforts with surrounding communities on issues related to aquifer protection.</p>	<p>Work with Berwick, North Berwick, Eliot and York to establish a mutual aquifer protection zone.</p>	Conservation Commission	1992

POLICIES

STRATEGIES

WATER RESOURCES: SURFACE WATER

<p>1. Establish a system to continually monitor surface water quality for the purpose of maintaining or upgrading that quality.</p>	<p>Obtain from DEP copies of water quality tests undertaken on South Berwick's great ponds, rivers and streams, and review these tests to identify sustained water quality changes warranting Town action, in accordance with state-recognized standards.</p> <p>Establish a volunteer program for surface water quality monitoring.</p>	<p>Comp. Plan Committee  Conservation Commission</p>	<p>Ongoing  1991</p>
<p>2. Ensure that water quality is sufficient to provide for the protection and propagation of fish, shellfish and wildlife and provide for recreation in and on the water.</p>	<p>Continue to require that developers demonstrate that their projects will have no adverse impact on the quality of surface water resources.</p> <p>Maintain the current resource protection district.</p> <p>See Wetlands 1 (regulate discharge of dredged or fill material).</p>	<p>Planning Board  -  Planning Board</p>	<p>Ongoing  -  Ongoing</p>
<p>3. Require practices that minimize "runoff", soil erosion, and sedimentation which may result in the excess nutrients being added to surface waters.</p>	<p>Continue to require that, as part of the subdivision review process, developers prepare impact studies demonstrating that runoff, soil erosion, and sedimentation will be prevented or mitigated by adequate control measures.</p> <p>Incorporate DEP's phosphorus loading standards into the subdivision ordinance.</p>	<p>Planning Board  PB, Council</p>	<p>Ongoing  1991</p>
<p>4. Ensure that development is located on land that is capable of supporting on-site water and septic disposal systems in areas where no municipal sewer or water services are available.</p>	<p>Continue to require that a high intensity soil survey be prepared as part of the development review process.</p> <p>Continue to require a site evaluation test prior to the issuance of a building permit.</p> <p>Apply the "suitable land calculation" table to any lot division, whether located in a subdivision or not. (Section 3.6 of the South Berwick Zoning Ordinance).</p>	<p>Planning Board  Planning Board  CEO, Planning Board</p>	<p>Ongoing  Ongoing  1991</p>
<p>5. Direct development to areas with appropriate soil, slope and drainage conditions.</p>	<p>Continue to regulate development through appropriate standards in the Town's ordinances.</p> <p>See Land Use 7 (protect environmentally sensitive areas) and Land Use 4 (establish point system).</p>	<p>Planning Board  -</p>	<p>Ongoing  -</p>
<p>6. Work on cooperative efforts with surrounding communities on issues related to watershed planning.</p>	<p>Establish with Berwick, North Berwick, York and Elliot, as well as other communities, a dialogue and exchange of information on watershed planning issues.</p>	<p>Comp. Plan Committee</p>	<p>1991</p>

POLICIES

STRATEGIES

<p>7. Educate the public on State and Federal laws governing water resources.</p>	<p>Use Town newsletter and promote awareness in schools. Open lines of communication between the Water District and the Town.</p>	<p>Conservation Commission Comp Plan Committee</p>	<p>Ongoing</p>
<p>8. Develop alternative contingency plans for the future water supply needs of the community.</p>	<p>Establish a contingency plan for the use of an alternate water supply source, including another aquifer. Develop a long-range plan for the development of other water supply sources other than in the existing aquifer.</p>	<p>Water District Water District</p>	<p>1991 1991</p>
<p>D. CRITICAL RESOURCES - TOPOGRAPHY, GEOLOGY, LAND COVER</p>			
<p>1. Direct terrain alteration and other development away from land forms with slopes greater than or equal to 15%.</p>	<p>See Land Use 7 (retain steep slopes).</p>	<p>-</p>	<p>-</p>
<p>2. Ensure that new development shall be designed to be compatible with existing topography and to preserve natural land cover and vegetation.</p>	<p>See Land Use 7 (retain slopes, ridges) and Land Use 4 (promote rural clustering, road buffers). In the subdivision review process, encourage individuals and developers to retain natural cover and vegetation to the maximum extent possible.</p>	<p>PB, Council</p>	<p>1991</p>
<p>3. Encourage passive land uses through easements and buffer zones in those areas determined to have a scenic value.</p>	<p>See Land Use 4 (mandate rural road buffers). Develop Town-wide land cover mapping as a planning tool for prioritization of significant natural and scenic areas. Amend Subdivision Ordinance to mandate protection of scenic areas as contained in this Plan as land is developed. Encourage development that takes into consideration preservation of scenic vistas and sets aside recreational and passive open space.</p>	<p>- TP, Comp. Plan Committee PB, Council PB, Council</p>	<p>- 1991 1991 1991</p>



POLICIES

STRATEGIES

CRITICAL RESOURCES: WILDLIFE

<p>1. Work for the completion of further studies and investigation of additional wildlife resources and to establish the actual value of these and existing resources as documented by Inland Fisheries and Wildlife.</p>	<p>Conduct a Town-wide inventory of wildlife resources in consultation with Maine Audubon, Inland Fisheries and Wildlife and The Nature Conservancy.</p> <p>Consult with officials from the Department of Inland Fisheries and Wildlife whenever a proposed development project would impact a deer wintering area.</p>	<p>Conservation Commission</p> <p>Town Planner</p>	<p>1993</p> <p>Ongoing</p>
<p>2. Consider activities which involve the draining, filling and waste disposal of low, moderate and high value wetlands (as defined by IPW) as unacceptable.</p>	<p>See Wetlands 2 (prohibit fill) and Wetlands 4 (prohibit draining).</p>	<p>-</p>	<p>-</p>
<p>3. Protect the riparian habitat of all high and moderate value wetlands from development and modification such as filling and clear cutting.</p>	<p>Regulate areas within 250 feet of high to moderate value wetlands according to IPW standards.</p>	<p>PB, Council</p>	<p>1991</p>
<p>4. Preserve deer wintering areas (as currently defined) as significant natural resources and also give further investigation to establishing the actual value of these areas as deer yards.</p>	<p>See Wildlife 1 (consult with IPW).</p> <p>Prohibit subdivisions from deeryards and require conditional use permits for all other newly established uses which impact deeryards.</p>	<p>-</p> <p>PB, Council</p>	<p>-</p> <p>1991</p>
<p>5. Establish a riparian buffer zone within wildlife corridors defined as important by IPW, such as the Salmon Falls and Great Works Rivers.</p>	<p>Establish a resource protection district along the Salmon Falls River.</p> <p>Establish a greenbelt along the Salmon Falls and Great Works Rivers through the acquisition of easements, land purchases, and State grant programs.</p> <p>Work with neighboring communities and the State of New Hampshire on the preservation of the Salmon Falls River corridor.</p>	<p>PB, Council</p> <p>Cons. Comm. Town Planner</p> <p>Cons. Comm. Town Planner</p>	<p>1991</p> <p>1991</p> <p>1991</p>
<p><u>CRITICAL AND NATURAL HERITAGE AREAS</u></p>			
<p>1. Update inventories of critical and natural areas and expand resource protection areas to include those areas not currently identified.</p>	<p>Work with the State Planning Office to expand and refine existing inventories of critical and natural areas.</p> <p>Amend the zoning ordinance by applying resource protection district standards to the Balancing Rock, Spring Hill overlook and the Gorge. Periodically amend the zoning ordinance by applying these standards to other critical and natural areas.</p>	<p>Conservation Commission</p> <p>PB, Council</p>	<p>Ongoing</p> <p>Ongoing</p>

POLICIES

STRATEGIES

<p>2. Continue to designate shoreland, floodplains and slope areas as currently defined in the Zoning Ordinance.</p>	<p>Continue to designate shoreland, floodplains and slope areas as currently defined in the Zoning Ordinance.</p>	<p>PB</p>	<p>Ongoing</p>
<p>3. Ensure that recreational and/or commercial uses permit and promote the area's uniqueness for natural, scenic, or historic value.</p>	<p>See Land Use 7 (protect environmentally sensitive areas).</p>	<p>-</p>	<p>-</p>
<p>4. Take a lead role in working with landowners to promote public use and access to natural areas where appropriate to the landowner and the resource.</p>	<p>Through the Town newsletter and increased efforts in the Assessing office, communicate to residents the benefits available in landowner preservation options (tree growth, open space, and easements). Work to develop tax incentives on the local level for conservation and recreational easements. Develop an instrument on the local level for Town acceptance of easements, donations and gifts related to land conservation.</p>	<p>Code Enforcement Officer Assessor, Council Council</p>	<p>Ongoing Ongoing 1992</p>
<p>5. Remain actively involved with the preservation of the Mount Agamenticus region.</p>	<p>Commit to a program of acquiring easements on properties with critical natural resources. Property tax compensation through existing State programs or newly created local programs should be examined. Continue to advocate that the land for Maine's Future Board purchase important parcels in the Mt. Agamenticus area.</p>	<p>Council Cons. Comm.</p>	<p>Ongoing Ongoing</p>
<p>6. Promote joint efforts with adjoining towns to protect critical natural resource areas which cross town and state boundaries (such as the Great Works River, the Salmon Falls River, and aquifers).</p>	<p>See Ground Water 3 (work with adjoining communities to establish aquifer protection zone).</p>	<p>-</p>	<p>-</p>
<p><u>SCENIC AREAS</u></p>			
<p>1. Require the preservation of identified scenic views.</p>	<p>Amend the Subdivision Ordinance to require that scenic views, as contained in this Plan, be retained as land is developed.</p>	<p>PB, Council</p>	<p>1991</p>
<p>2. Undertake a more complete inventory of the Town's scenic resources while allowing for public input into the development of the inventory.</p>	<p>Conduct an inventory and assessment of scenic resources using an established methodology.</p>	<p>Conservation, Historic Comm.</p>	<p>1993</p>

POLICIES

STRATEGIES

<p><b>E. PUBLIC FACILITIES</b></p> <p><u>WATER SUPPLY</u></p>			
<p>1. Establish a framework by which to work more closely with the South Berwick Water District on issues related to planning and water quality.</p>	<p>Form a committee to work more closely with the South Berwick Water District on issues related to water quality and planning. At year's end 1991, evaluate the success of such an effort, and recommend any further steps, if needed, to ensure adequate integration of the Town and Water District planning process.</p>	<p>TM, Council, Water District Comp. Plan Committee</p>	<p>1991</p>
<p>2. Ensure that all water supplied by the South Berwick Water District meets or exceeds Maine State water quality standards.</p>	<p>Review and amend the Aquifer Protection Ordinance on a yearly basis as new information on water supplies and possible contamination sources becomes available.</p> <p>Review copies of all water quality tests undertaken by, or on behalf of, the South Berwick Water District.</p>	<p>TP, Council Comp. Plan Committee</p>	<p>1993 Ongoing</p>
<p>3. Take appropriate steps to clean up and contain existing threats to the present and future water supply.</p>	<p>Conduct an inventory of underground tanks and other ground water threats in the area overlying the Town's aquifer.</p>	<p>Conservation Commission</p>	<p>1992</p>
<p>4. Emphasize conservation to the same degree as the development of new water sources.</p>	<p>Amend local ordinances to promote the use of water saving devices.</p>	<p>PB, Council</p>	<p>1991</p>
<p>5. Develop a plan to accommodate future commercial/industrial and residential growth.</p>	<p>Develop an impact fee system to ensure that developers of new residential subdivisions and commercial/industrial development bear a pro rata share of the cost of developing new water supplies.</p> <p>Ensure with language in the Site Plan and Subdivision ordinances, that development proposals submitted to the Planning Board are reviewed by the Fire Department for adequacy of fire protection.</p> <p>Maintain existing residential density on the Hooper Sands Road, regardless of the availability of a municipal water supply.</p>	<p>Water District TP Council</p>	<p>1991 Ongoing Ongoing</p>
<p>6. Ensure that the municipal water system can meet future fire control needs.</p>	<p>Require that developers document the availability of sufficient water supplies to meet the fire control needs of their developments.</p>	<p>PB, Council</p>	<p>1991</p>

POLICIES

STRATEGIES

SEWAGE TREATMENT

<p>1. Establish a framework by which to work more closely with the South Berwick Sewer District on issues related to planning and water quality.</p>	<p>Form a Committee to work more closely with the South Berwick Sewer District on issues related to water quality and planning. At year's end 1991, evaluate the success of such an effort, and recommend any further steps, if needed, to ensure adequate integration of the Town and Sewer District planning process.</p>	<p>TM, Council, Sewer District Comp. Plan Committee</p>	<p>1991</p>
<p>2. Discourage the use of large community septic systems in new developments.</p>	<p>Amend the Zoning Ordinance and the Subdivision Ordinance to prohibit the use of community systems involving more than 1,800 gallons of waste per day.</p>	<p>PB Council</p>	<p>1991</p>
<p>3. Continue to ensure that lots are of sufficient size to accommodate on-site, subsurface sewage disposal systems.</p>	<p>See Critical Resources: Soils 3 (maintain large lot sizes).</p>	<p>--</p>	<p>--</p>
<p>4. Ensure that future users of the sewage treatment system pay their fair share of the costs of upgrading and expanding the system.</p>	<p>Develop an impact fee system to ensure that developers of new residential subdivisions and commercial/industrial development bear a pro rata share of the cost of upgrading and expanding the sewage treatment plant.</p>	<p>Sewer District</p>	<p>1992</p>
<p>5. Affirm, as a matter of policy, that sewage treatment through the South Berwick Sewer District's facilities is preferred over subsurface sewage disposal as the more environmentally sound means of disposing of sewage.</p>	<p>Work with the South Berwick Sewer District to ensure that the sewage treatment plant is upgraded to secondary treatment levels and that the capacity of the plant is expanded to accommodate South Berwick's 10-year growth projections.</p>	<p>Comp Plan Committee</p>	<p>Ongoing</p>
<p>6. Examine local options to strengthen the Maine State Plumbing Code in regard to sub-surface disposal in areas where it is considered ineffective.</p>	<p>Extend public sewers to newly developing areas adjacent to the existing sewer service areas when developers are willing to pay the costs and when such extensions will not occur in environmentally sensitive areas such as deer yards or lands with development limitations such as wetlands and flood plains.</p>	<p>Sewer District</p>	<p>Ongoing</p>
<p>6. Examine local options to strengthen the Maine State Plumbing Code in regard to sub-surface disposal in areas where it is considered ineffective.</p>	<p>Amend the Zoning and Subdivision Ordinance to require new lots to have a reserve area of suitable soils for a replacement subsurface sewage disposal system.</p>	<p>PB Council</p>	<p>1991</p>
<p>6. Examine local options to strengthen the Maine State Plumbing Code in regard to sub-surface disposal in areas where it is considered ineffective.</p>	<p>Consider strengthening the State's plumbing code on the local level.</p>	<p>Plumbing Inspector Comp. Plan Committee</p>	<p>1992</p>
<p>PUBLIC FACILITIES: SCHOOLS</p>			
<p>1. Open a dialogue with SAD 35 to work on mutual, long term planning goals.</p>	<p>Meet with school officials on a periodic basis to consider school facility needs (including building and recreational needs), and to analyze the impact of school assessments on the tax rate.</p>	<p>Council, Comp. Plan Committee</p>	<p>Ongoing</p>

POLICIES

STRATEGIES

PUBLIC FACILITIES: TRANSPORTATION

1. Develop a comprehensive plan for routine maintenance and improvement of Town roads.

Consider existing and future school facilities as logical sites for new recreation facilities such as ballfields, playgrounds.

Council

Ongoing

Proceed with a Road Surface Management System (RSMS) program in consultation with MDOT's Local Roads Center.

Road Foreman  
Road Commis-  
sioner  
Council

1991

Appropriate annual funds for road engineering services and develop an ongoing strategy for the repair and maintenance of roads based on recommendations from the RSMS process. Special attention should be given to roads in the growth areas as designated in this plan.

Council

Ongoing

Develop a 5-year road/bridge improvement plan (from RSMS), including a description of needed work and estimated costs, and incorporate into the Town's capital improvements program.

Town Manager

1992

Leave existing gravel roads as gravel, but establish a working program (based on RSMS) to ensure that year-round rounds are upgraded and kept in passable year-round condition.

Town Manager,  
Council

Ongoing

2. Consider safety for vehicular traffic and pedestrians, improvement of existing flows, impact on residential areas and impact on the environment when any road building or improvements are to take place.

Require that, as part of the development review process, developers submit traffic and environmental impact studies analyzing level of service and safety.

PB, Council

1991

Require that developers provide facilities for pedestrian and bicycle circulation in new developments that are in or adjacent to built-up areas.

PB, Council

1991

3. Require that all commercial and residential developments provide adequate parking and roadways.

Strictly enforce the parking standards of the Zoning Ordinance.

PB, CEO  
Road Commiss.

Ongoing

4. Encourage the development of additional parking facilities for the central commercial district.

Establish an account for purchasing additional downtown parking facilities and provide for yearly additions to the account in the Town's Capital Improvements Program.

Council

1992

Investigate the potential for an impact fee fund to be established which would require new businesses in Town to provide donations to a parking fund as set up above.

Council

1992

POLICIES	STRATEGIES		
<p>5. Encourage alternate means of transportation (i.e. bicycles, walking, car pools, public transportation.)</p>	<p>Provide car pool parking areas where possible. Establish contact with State and regional planning groups to encourage the development of Amtrak service to Portland.</p>	<p>Town Manager</p>	<p>Ongoing</p>
<p>6. Increase efforts to work on regional strategies to alleviate the problems of traffic congestion on Routes 4 and 236.</p>	<p>Periodically renew the Town's request to the Maine Department of Transportation for the bypass. Establish a corridor development plan for Route 236 in coordination with neighboring towns. Investigate the potential for making particular streets in the downtown area one-way streets and also examine new signage to alleviate traffic congestion at peak hours.</p>	<p>Council Comp. Plan Committee Council</p>	<p>1991 Ongoing 1991</p>
<p>7. Develop plans for a limited access by-pass road for through traffic while discouraging commercial or extensive residential development along the by-pass.</p>	<p>Work with MDOT to identify the location of the new bypass as accurately as possible, and identify the steps the Town can take to preserve the corridor from development. Amend the Subdivision Ordinance to require preservation of bypass corridor land during the development review process.</p>	<p>Comp. Plan Committee PB, Council</p>	<p>Ongoing 1991</p>
<p><u>PUBLIC FACILITIES: SOLID WASTE</u></p>			
<p>1. Provide facilities and services for the disposal of all residential waste, including household hazardous waste.</p>	<p>Continue to work with other Southern Maine communities to find sites for the disposal of items which cannot be sent to the MERC incinerator or recycled. Support the establishment of a regional public or private facility for the disposal of demolition debris. Continue to work with other Southern Maine towns to protect municipal interests in dealing with MERC and other solid waste companies. Continue recycling efforts at the local level, and work with other communities to develop regional solutions. Develop contingency plans to deal with the temporary or permanent closure of MERC.</p>	<p>Solid Waste Advisory Board Council Town Manager, Council Solid Waste Advisory Board Council Solid Waste Advisory Board Council Council, Solid Waste Advisory Board</p>	<p>Ongoing Ongoing Ongoing Ongoing Ongoing</p>

POLICIES

STRATEGIES

2. Plan for the maximum development and implementation of a comprehensive recycling and composting program.

Establish the position of solid waste disposal coordinator.  
Encourage all businesses to submit a recycling plan.

Council  
Planning Board

1991

Establish an educational program in the schools and at the transfer station and Townwide, aimed at increasing awareness of solid waste disposal solutions.

Solid Waste Advisory Board  
Council

Ongoing

Establish a hazardous waste collection system at the transfer station for the residents of South Berwick.

Solid Waste Advisory Board  
Council

1991

PUBLIC FACILITIES: EMERGENCY SERVICES

1. Continue a centralized, consolidated dispatch center for fire, ambulance and police.

Continue financing for a consolidated dispatch center through the Town's capital improvements program.

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2. Ensure that adequate supplies of water are available for fire fighting purposes in areas not served by the South Berwick Water District.

Continue to require that all development proposals be reviewed by the Fire Chief.  
Install standardized dry hydrants throughout Town, where appropriate.  
Require that future subdivisions not served by public water service provide fire ponds, where feasible, and provide adequate access and turn-around areas for emergency vehicles.  
Require that converted multi-family dwellings, particularly where no Town water is available, be installed with sprinkler systems.

Fire Chief

Ongoing

Fire Chief  
Planning Board

Ongoing

Council

1991

3. Ensure that Police, Fire and Rescue Services keep pace with the growing population.

Continue to monitor the extent to which the Town meets national and State service standards and recommend changes where appropriate.

Police, Fire  
Chiefs

Ongoing

PUBLIC FACILITIES: LIBRARY

1. Seek to attain, maintain and if possible exceed the Minimum Standards for Public Library Services as provided for by the Maine Library Association for libraries serving a population of 5,000 - 9,999.

Provide through the municipal budget the means for bringing the library's holdings to State minimum standards.

Council

Ongoing

POLICIES

STRATEGIES

F. OUTDOOR RECREATION

<p>1. Develop and implement a long term plan for recreation lands and facilities based on identified needs, aimed at overcoming existing deficiencies and providing a wide range of recreational opportunities to the citizens of South Berwick.</p>	<p>Refine, if necessary, and adopt the draft open space and recreation plan prepared by the Town Planner.</p> <p>Research public access rights to Knights Pond and Warren Pond and Cox Pond to determine public access points.</p> <p>Conduct an inventory of trails and natural areas and potential open space corridors.</p>	<p>Recreation Committee, Cons. Comm.  Town Planner  Cons. Comm. Town Planner</p>	<p>1991    1992</p>
<p>2. Implement a policy for the maintenance and use of all existing and future facilities.</p>	<p>Authorize funds to plan for the recreational use of some existing Town-owned land.</p> <p>Continue to assign fees which fairly reflect the cost of programs.</p> <p>Establish a yearly parks maintenance program and budget for all recreational facilities.</p>	<p>Council  Rec. Comm. Council  Rec. Comm. Council</p>	<p>Ongoing  Ongoing  Ongoing</p>
<p>3. Better identify existing public lands and increase public awareness of the potential recreational use of these lands.</p>	<p>Undertake a comprehensive inventory of Town-owned lands and amend the Recreation Plan as necessary to include uses for these lands, while leaving others in an undisturbed state.</p> <p>Provide better identification of the Town Forest and maintain the areas for passive uses.</p>	<p>TP Recreation Committee  Conservation Commission</p>	<p>1992  1991</p>
<p>4. Acquire recreational and conservation lands through a broad-based strategy including acquisition, land donations and easements. Particular attention should be paid to providing tax relief to owners of potential recreational/conservation lands, providing access to water bodies, and extending greenbelts through the Town.</p>	<p>Encourage the establishment and preservation of walkways and open space corridors, particularly along logging and abandoned or discontinued roads, and where they can link with existing open space.</p> <p>Following completion of the inventory (see #1 above) amend the Subdivision and Site Plan Review ordinances to require open space and recreational linkages through the development approval process.</p> <p>Establish an account for matching funds and donations for open space and recreation purposes, and include in the Town's capital improvements program.</p> <p>Investigate the potential for the dedication of penalty funds from land taken out of Tree Growth and Farm and Open Space Classification, to be used as an open space fund.</p>	<p>Conservation Commission  PB, Council  Council  Comp. Plan</p>	<p>Ongoing  1991  Ongoing  1991</p>

POLICIES

STRATEGIES

5. Support programming of a cultural nature with funds, including but not limited to private donations and volunteers.	Encourage private groups to support local programs of a cultural nature.	Recreation Commission	Ongoing
6. Seek grants, state assistance and volunteers to reduce the costs of projects and programs to the Town.	Explore the possibility of the Town's participation in the State's 35 million dollar bond issue program, as well as the programs administered by the Department of Economic and Community Development for acquiring and developing recreation facilities. Work more closely with the Great Works Regional Land Trust.	Conservation Commission Town Planner Comp. Plan Committee	Ongoing
G. AGRICULTURE, FORESTRY AND OPEN SPACE			
1. Require forest management practices that assure a sustainable forest resource.	Continue to limit clear-cutting of large tracts of land.	CEO	Ongoing
2. Require land use development practices that preserve expanses of open space and forest land.	Encourage the use of the Tree Growth Tax law and the Farm and Open Space Law, donations to the Great Works Regional Land Trust, and the establishment of life estates.	Conservation Commission	Ongoing
3. Encourage the retention of unspoiled rural surroundings in close proximity to populated areas.	Inventory farm and forest lands in the community and identify those areas which, because of their high grade soils, agricultural, forestry, or other important resources values, warrant the most attention for preservation efforts.	Conservation Commission	Ongoing
4. Work to preserve through a system of easements, set asides and acquisition, lands which contain unique natural resource values.	See Housing 1 (allow clustering, density bonus if open space is provided), land use 6 (maintain R-3, R-4), land use 4 (retain steep slopes, hilltop ridges), land use 9 (require 100 foot buffer), Topography, Geology, Land Cover 3 (density bonus for scenic vistas, significant recreation areas, open space), Critical Resources: Wildlife 5 (establish resource protection along Salmon Falls).	Council, PB, Conservation Commission	-

POLICIES

STRATEGIES

H. HISTORIC, ARCHAEOLOGICAL RESOURCES

<p>1. Provide oversight and seek funding for preservation of historical buildings, sites, and landmarks.</p>	<p>Explore the use of federal and state grants for purchase and restoration of historic buildings, sites, landmarks.</p>	<p>Historic Comm Conservation Commission</p> <p>Ongoing</p>
<p>2. Provide legal protection and oversight and fund preservation of archaeological resources.</p>	<p>Amend the Subdivision Ordinance to require that, as part of the development review process, potential archaeological sites be inventoried and if warranted, preserved.</p>	<p>PB, Council, Historic Comm</p> <p>1991</p>
<p>I. ECONOMY</p>		
<p>1. Conduct studies to determine the desirability of South Berwick for commercial/industrial growth.</p>	<p>Examine the experience of other towns similar to South Berwick that have been successful in attracting commercial and industrial growth.</p>	<p>Town Planner</p> <p>1992</p>
<p>2. Establish additional areas for commercial development that will not aggravate existing traffic congestion problems.</p>	<p>See Land Use 11 (rezone land along Route 236)</p> <p>Review the Town's Zoning Ordinance and Subdivision Ordinance particularly as they relate to Commercial and Industrial standards to see if there are any unnecessary standards or procedures.</p> <p>Continue to require that commercial and industrial uses be permitted only where there is a proven, adequate supply of water and a sewage disposal system.</p> <p>Ensure zoning and subdivision regulations do not discourage appropriate commercial/industrial growth.</p> <p>Establish a small commercial district south of the Village area.</p>	<p>-</p> <p>Town Planner</p> <p>1991</p> <p>PB, Council</p> <p>1991</p>
<p>3. Establish additional areas outside of the current industrial park for future industrial development.</p>	<p>See Land Use 11 (rezone land along Route 236). Work with the Water and Sewer Districts to provide services to these areas.</p>	<p>Comp. Plan Committee</p> <p>Ongoing</p>
<p>4. Encourage the establishment of clean industries in South Berwick that will contribute to the region's economy without creating air pollution, water pollution, traffic congestion, noise, odors, or other undesirable side effects.</p>	<p>Amend the Zoning Ordinance by adding performance standards aimed at encouraging industries which meet strict environmental standards and do not create or aggravate existing traffic congestion problems, or create other undesirable effects (See Appendix).</p>	<p>PB, Council</p> <p>1991</p>
<p>5. Continue to avoid strip commercial development in South Berwick.</p>	<p>Limit future commercial development to the existing downtown and to land along Route 236; establish strict standards to avoid "strip development" impacts along Route 236 south of Route 91.</p>	<p>PB, Council</p> <p>1991</p>

POLICIES

STRATEGIES

<p>6. Continue to allow a range of home occupations and professional offices that do not detract from residential neighborhoods or the rural character of South Berwick.</p>	<p>Continue to permit home occupations as conditional uses provided that the home occupation standards of the Ordinance are met.  Establish standards for professional offices.</p>	<p>CEO and PB  PB, Council</p>	<p>Ongoing  1991</p>
<p>7. Ensure high quality commercial and industrial development through the site plan review process.</p>	<p>See Land Use 10 (develop a site plan review ordinance).</p>		
<p>J. TOWN FINANCES</p>			
<p>1. Actively seek new non-tax sources of revenue and other methods of financing growth.</p>	<p>Require that developments which would create an unreasonable burden on Town services be built in phases which parallel the planned expansion of municipal facilities, as provided for in the Town's Capital Improvement Program.</p>	<p>PB, Council</p>	<p>1991</p>
	<p>Include in the Subdivision Ordinance provisions to allow the town to require that developers participate in the provision or expansion of public facilities to service the development. Where appropriate, this may include roads, fire stations, water supply and classrooms.</p>	<p>PB, Council</p>	<p>1991</p>
	<p>Implement programs/services on a fee basis, where applicable.</p>	<p>Council</p>	<p>Ongoing</p>
	<p>Increase efforts to pursue excise tax evaders.</p>	<p>Town Manager,</p>	<p>Ongoing</p>
	<p>Maximize the yield on interest income (within federal and state laws).</p>	<p>Treasurer</p>	<p>Ongoing</p>
	<p>Maintain a general fund balance equal to three months operating expenses.</p>	<p>Town Manager, Council</p>	<p>Ongoing</p>
	<p>Actively lobby and/or support lobbying efforts to increase State aid to municipalities.</p>	<p>Town Manager, Council</p>	<p>Ongoing</p>
<p>2. Maintain a responsible tax rate which is consistent with maintaining the current levels of services.</p>	<p>Analyze the financial impact of new growth and new housing units and attempt to have that new growth pay for itself.  Annually analyze existing fees to determine if fee levels are current with the costs of providing services; and increase any fees which fall short.  Continue the building permit limitation ordinance, but examine the numerical cap on a yearly basis and readjust the cap as the Town and its quasi-public</p>	<p>Town Manager</p>	<p>Ongoing  1991</p>

POLICIES

STRATEGIES

<p>agencies increase their ability to provide needed services.</p>	<p>Town Planner Comp. Plan Commission</p>	<p>1991</p>
<p>Examine the implementation of impact fees.</p>	<p>Town Manager</p>	<p>Ongoing</p>
<p>Fund long lived capital expenditures through bonding (within legal framework).</p>	<p>Town Manager</p>	<p>Ongoing</p>
<p>Maintain a 5-10 year capital improvements plan.</p>	<p>Town Manager</p>	<p>Ongoing</p>
<p>Decrease Town reliance on the property tax to the maximum extent possible.</p>	<p>Town Manager Council</p>	<p>Ongoing</p>
<p>Analyze the desirability of tax increment financing as a tool to promote commercial and industrial development.</p>	<p>Town Planner Comp. Plan Commission</p>	<p>1993</p>
<p>Coordinate the purchase of materials and capital equipment with adjoining towns.</p>	<p>Town Manager</p>	<p>Ongoing</p>
<p>See Schools 1 (create a dialogue on tax rate).</p>	<p>Council</p>	<p>Ongoing</p>
<p>Coordinate the purchase of materials and capital equipment with adjoining towns.</p>	<p>Town Manager</p>	<p>Ongoing</p>

The following is a description of the proposed land use map (Map 12-1, page 12-26) and the ideas which went into developing that map.

The map shows the Town being divided into R-1, R-2, R-3, R-4 and R-5 districts. Areas of potential mixed used, commercial/industry land are also shown. The route of a potential bypass, a greenbelt area and two scenic roads are also noted.

It is extremely important to note that all potential land use district boundary changes are general in nature at this time. Final boundaries will be developed during the update of the Zoning Ordinance.

The State of Maine, in establishing the Growth Management Act, has instructed communities to set up "growth areas" and "rural areas." The land use map, as proposed, keeps the existing R-1 and R-2 districts as growth areas, but also extends the boundaries of these areas.

The R-1 district, as presently drawn, is nearly built out. The R-2 district, while containing more open land, includes areas of steep slopes (Powderhouse Hill), wet areas (in Agamenticus Estates) and areas of limited access.

The R-1 district has been extended slightly northward and also southward. The extension of the district to the south brings it out of the current water/sewer boundaries. Lot sizes in these areas will not be reduced until water and sewer are available in these areas. However, it is planned that within the next five years, and after development takes place within the existing boundary, this area will be a logical growth area. The existing lot sizes in this area are small, houses are located close to the street, access to Route 236 is available, and the area currently has a "village type" fabric. The area, however, is rich in historical homes. The attributes of this expanded village should be retained.

The R-2 district has been extended across the Great Works River. Once again, this is necessitated by a need for more developable land within the district. This area, bounded by Witchrot Road, contains certain scenic values which the committee would like to protect. Any subdivision application in this area will be required to show both a clustered and non-clustered approach for the development. As with the extended R-1 district, the lowering of lot sizes in this extended district will be contingent upon the provision of water and sewer to the area. Until then, the existing R-3 standards will apply.

It must be pointed out here how crucial it is to work both with the Water and Sewer Districts on expanding their boundaries, then to work with potential developers and the Districts on expanding services to these areas. The idea is to make it financially attractive enough (through lower lot size requirements) for a developer to provide these services. Once these services are available, the standards of the R-1 and R-2 Districts would apply.

While the Town has identified more land for development in these areas, the plan is for the existing rural areas to remain rural and to prevent large-scale development from taking place. Development in the R5 district detracts from rural character and may be expensive to service.

The following is an outline of the steps the Town plans to take to protect its rural character and promote infill development:

1. Additional Points for Growth Permit applications in the Town's Designated Growth Areas

Use the Town's existing building permit limitation point system to assign a greater number of points to those applications which are submitted for housing units within the R-1 and R-2 Districts.

This point system will be devised with all ordinance updates. At the end of one year's time, the system will be reviewed to ensure that it is in fact directing growth to the appropriate growth areas.

2. Subdivision Phasing

Within the Subdivision Ordinance establish a system for phasing of subdivisions based on size, location, amount of development within that zone which has occurred or is likely to occur, and the status of Town services from schools to roads. This would need to be more fully developed, but is already in the Subdivision Ordinance in rough form.

3. Point System for R-5 District

Devise a point system for the R-5 district (and possibly R-4 district) so that the ability to develop land (and set lot sizes) is directly related to the ability of that land to support development. *This is only an example of how it would work.* This is proposed for 1992.

Minimum lot size for lots which are not part of a subdivision 120,000 square feet  
Minimum lot area per dwelling unit for residential subdivisions 120,000 to 200,000 square feet (see below)

To determine the density of development for any subdivisions, the physical capability of the site shall be evaluated according to the following factors.

Overall Rating

30-35	120,000
24-29	150,000
16-23	170,000
12-15	200,000
less than 12	not permitted

A. Percentage of site suitable for private sewage disposal utilizing conventional tank, etc.

	<u>Points</u>
More than 90%	10
70% to 90%	9
40% to 70%	7
20% to 40%	4
20% or less	0

B. Percentage of site with a SCS soil rating of good or fair for houses with basements.

(Point system same as A.)

C. Percentage of site located outside of wetlands, streams, flood area, etc.

(Point system same as A.)

D. Percentage of site susceptible to erosion based on Maine Environmental Quality Handbook.

(Point system same as A.)

We would also want to consider adding different criteria such as wildlife habitat, historical and archaeological resources, scenic views and possibly others.

4. Road Access Control Provision Within Subdivision Ordinance (for R-3, R-4 and R-5 Districts)

This would help conserve the rural character along public roads and reduce the proliferation of driveways along these roads. Essentially, for any subdivision proposed, new lots would have to front on a newly-created road within the subdivision, not on existing public roads. This would enable the Town to reduce numerous lots strung along on existing roads.

5. Rural Overlay District for R-4 and R-5

This would attempt to protect rural character for those new dwellings outside of subdivisions or outside the subdivision review process. Simply, within the R-4 and R-5 districts, any new dwelling would be required to retain a 50-foot natural buffer strip along the roadside.

6. Clustering for R-3, R-4 and R-5 Districts

The Board is currently able to require clustering. The feeling of the committee was that it should not be mandatory. However, it should be made clear within the Subdivision and Zoning Ordinances that clustering will be examined as the primary option for the R-3, R-4 and R-5 districts. In fact, a requirement should be made for all subdivisions within these districts that two plans be presented, one for a non-clustered approach and the other for a clustered approach. The Planning Board would have the opportunity to select the plan which they felt was most representative of the principles and policies as outlined in the Comprehensive Plan.

In addition, uses in the R-5 district which pose an environmental or aesthetic threat to the area will be significantly curtailed. For instance, gravel and mineral extraction operations or other potentially noxious uses will not be allowed.

It should be pointed out that the Planning Committee envisions all minimum lot size requirements to remain the same (at least for the time being).

This would mean the following lot sizes per district for residential dwellings:

	Without Sewer (square feet)	With Sewer (square feet)
R-1	40,000	10,000
R-2	40,000	30,000
R-3	80,000	80,000
R-4	120,000	120,000
R-5	120,000	120,000

7. Commercial Development

Commercially, the downtown area of South Berwick is built out. There is also limited parking and traffic congestion - issues which have made pedestrians feel somewhat threatened when using the streets. However, the area remains important commercially. To this end the Committee proposes to expand the commercial zone downtown, attempt to provide additional parking and also seek to more greatly enforce the rights of pedestrians in the downtown area. Map 12-2 shows the approximate locations of existing and proposed commercial and mixed use areas. Some of the existing commercial areas are not appropriate because the areas to which they apply are largely residential. These would be changed to R-1 when the zoning ordinance is revised.

Due to the significant limitations of developable land within the village, the Committee is also proposing a small commercial area off Route 236 near the Great Works River and Brattle Street. This is a small area, but was once a commercial/industrial center which fell into disuse.

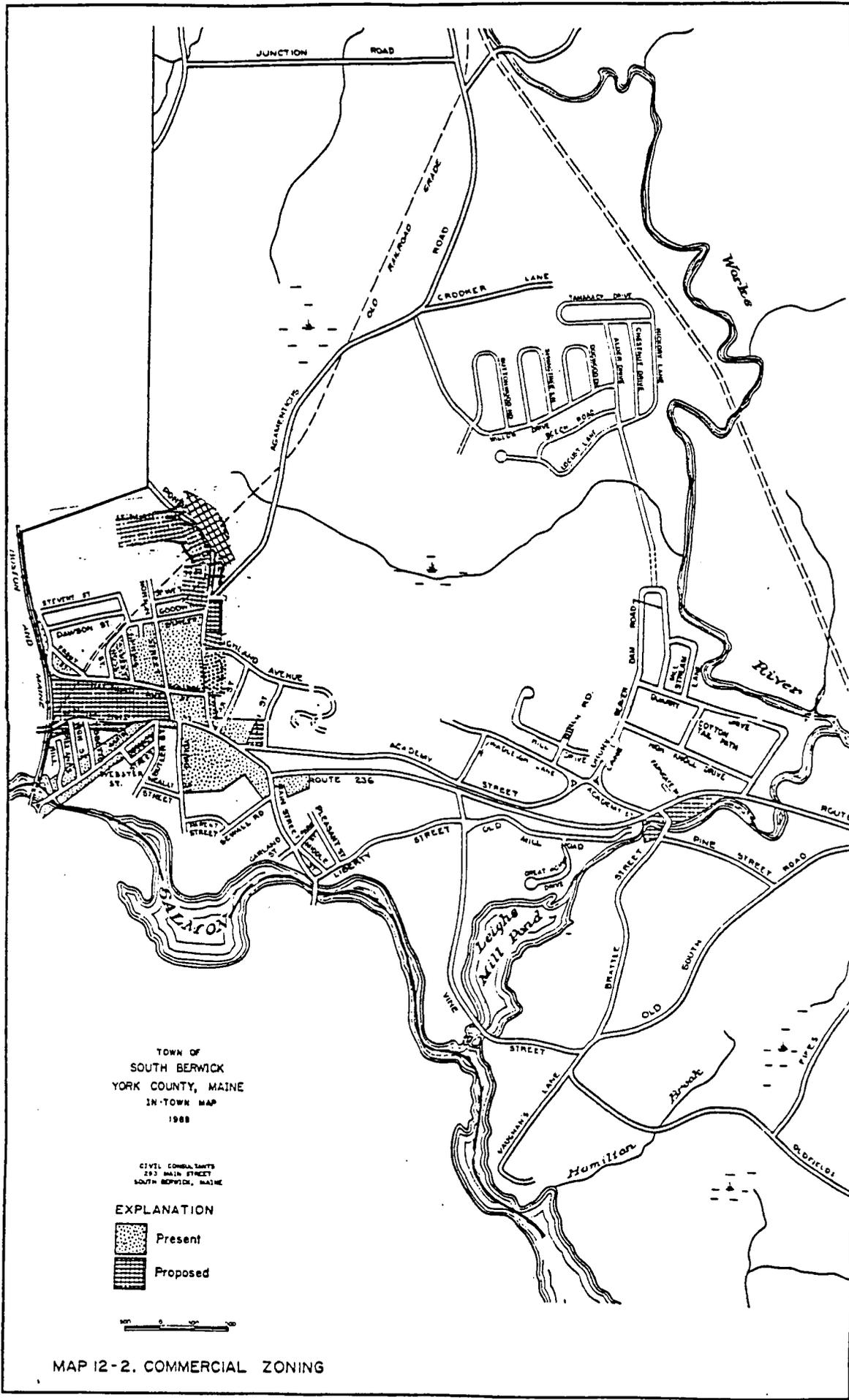
Although small it could service the Old Hill and Farmgate developments and other residents as well. It is proposed that standards applying to the current B-1 district would apply to here also. The location of the area as shown on the land use map is general in nature.

8. Industrial Development

The Town's current Industrial Park has not been utilized at this time. Problems related to traffic (in the downtown area), wetlands and its location on scenic farmland may hinder its use. The Planning Committee feels this site should be reevaluated as an Industrial Park and the uses allowed within this area should also be reexamined. It is also proposed that the Town's floating Industrial Zone be eliminated.

An industrial/commercial zone is proposed along Route 236. The site has easy access to Route 95, would not exacerbate traffic problems downtown, would be located near a potential bypass route and is fairly well removed from residential development. The area shown on the future land use plan is, once again, a general location only. The exact location of the zone would be in need of refinement. More importantly, the establishment of this zone would be contingent upon satisfactory performance standards to be developed which would eliminate any possibility of a commercial strip developing along the road. These standards would include, at a minimum:

- The buffering, with native vegetation, of any sites from Route 236.
- The requirement that all parking be in the rear or side of the proposed structures.



TOWN OF  
SOUTH BERWICK  
YORK COUNTY, MAINE  
IN-TOWN MAP  
1988

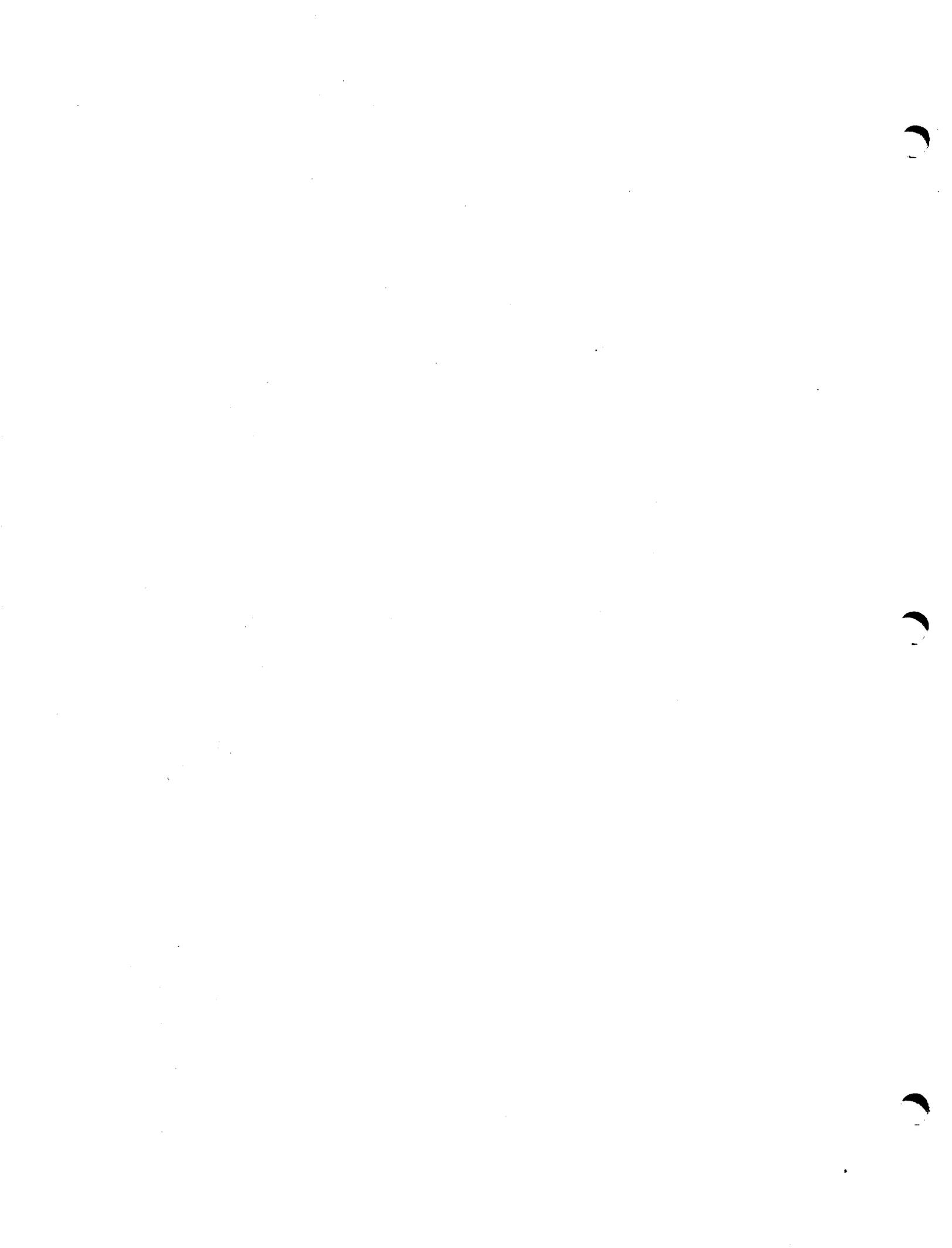
CIVIL COMMISSIONERS  
293 MAIN STREET  
SOUTH BERWICK, MAINE

**EXPLANATION**

	Present
	Proposed



MAP 12-2. COMMERCIAL ZONING



# APPENDIX A

## TOWN OF SOUTH BERWICK CITIZEN SURVEY RESULTS

The following is a summary of the overall results of the South Berwick Citizen Survey which was undertaken in the spring of 1989. A total of 544 questionnaires were returned. The results below are given in percentages, and include the percentage of respondents that did not answer a particular question. The percentage responses to each question may not equal 100 in all cases because of rounding.

A mean, or average, response is also shown for each question. The mean response is critical for measuring the relative strength of responses to each question. Means which range between 1.00 and 3.00 are positive, with stronger responses ranging closer to 1.00 and weaker responses ranging closer to 3.00. Averages between 3.00 and 5.00 are negative, with the strongest negative responses being close to 5 and the weakest negative responses being close to 3.00

### FUTURE CHARACTER OF THE COMMUNITY

1. In the future, how important is it to have the following available to you in the Town of South Berwick?

	Mean	1 Very Important %	2 Somewhat Important %	3 Uncertain %	4 Little Importance %	5 Not Important %	No Response %
Good School System	1.43	74	13	2	2	4	5
Good Police Department	1.43	67	25	3	1	2	2
Good Fire Department	1.24	76	21	1	0	0	2
Improved In Town Roads	2.18	24	48	10	12	3	3
Improved Rural Roads	2.36	25	38	13	14	6	3
Churches	2.75	24	24	15	17	15	5
Shopping Facilities	3.16	11	29	8	29	18	3
Ability to Earn a Living Within the Community	3.14	15	26	10	23	23	3
Full Range of Recreation Facilities	2.75	18	35	11	17	15	3
Additional Cultural Facilities	3.14	9	27	17	27	16	4
Open Space and Wildlife Areas	1.75	53	29	4	8	3	2
Undeveloped Greenest, linked by Trails, Bike Paths, etc.	2.35	33	28	12	13	10	4
Combined Fire Protection, Police Protection and Rescue	2.05	43	25	18	4	7	3
Extended Municipal Water System	2.97	17	23	21	15	20	5
Extended Municipal Sewer System	2.98	16	22	21	15	19	7

2. Between 1985 and 1987, South Berwick issued an average of 159 building permits each year. In July, 1988, the Town adopted a Growth Limitation Ordinance which limits building permits to 60 each year for a period of 3 years. What is your opinion of the growth based on 60 permits per year?

	Mean	1 Growth too Rapid %	2 Growth About Right %	3 Uncertain %	4 Not Fast Enough %	No Response %
Residential	1.73	42	43	8	4	3
Commercial	2.49	18	31	23	21	7
Industrial	2.69	17	22	26	28	7

3. How do you feel about the following statement? "The following are serious problems facing South Berwick in the next 5 years."

	Mean	1 Strongly Agree %	2 Somewhat Agree %	3 Uncertain %	4 Somewhat Disagree %	5 Strongly Disagree %	No Response %
Traffic	1.51	67	20	4	6	1	2
Overburden of town services	2.09	35	30	18	9	3	6
Tax increases	1.91	47	25	14	8	3	4
Loss of open space	1.82	51	25	10	7	3	5
Overcrowded schools	1.76	53	22	13	4	3	4
Threats to water supply	1.68	56	22	13	3	2	4
Lack of affordable housing	2.39	30	26	20	13	7	3
Solid waste disposal	1.70	53	25	14	2	2	3
Loss of Rural Character	1.83	53	22	11	7	4	3

4. How desirable are the following for South Berwick's future?

	Mean	1 Very Desirable %	2 Somewhat Desirable %	3 Uncertain %	4 Little Desirability %	5 Not Desirable %	No Response %
Create high density areas balanced with low density areas	2.72	19	26	22	9	14	10
Keep town about as it is	2.00	45	26	9	6	8	6
Concentrate growth where it is now	2.76	17	26	24	12	13	9
Encourage growth in areas where there is little now	3.49	11	18	14	17	35	5
Allow growth anywhere	4.40	4	6	7	11	67	6
Limit growth to areas with public sewer and water	3.08	16	21	21	13	24	5

TAXES

5. Some communities have a large commercial and industrial base which increases the overall town valuation. This tends to spread the costs of municipal services over a larger base yet it also increases school and county assessments. In South Berwick, the commercial tax base is relatively small so that residential property carries most of the burden. How do you feel about the following statement? "The Town should encourage more commercial development in specified areas of Town."

		%	
1	Strongly agree	39	
2	Somewhat agree	33	
3	Uncertain	9	Mean 2.15
4	Somewhat disagree	6	
5	Strongly disagree	11	
	No response	2	

OPEN SPACE/RECREATION

6. How important is it to you that your local tax dollars be used for the preservation or creation of the following:

	Mean	1 Very Important %	2 Somewhat Important %	3 Uncertain %	4 Little Importance %	5 Not Important %	No Respon s
Access to Ponds	2.75	21	33	9	17	17	5
Marshes	2.97	18	24	15	19	19	4
Historic Sites	2.34	26	40	10	11	9	5
Unique scenic areas	2.25	31	36	8	1	8	5
Woodlands	2.12	38	31	7	10	7	6
Town Parks	2.23	32	36	8	9	9	5
Passive outdoor recreation areas	2.34	28	33	12	11	8	7
Active recreation areas	2.43	28	32	11	13	10	6
Indoor recreation facilities	2.85	18	28	15	17	17	6
Bicycle trails	2.76	20	31	10	17	16	7
Playing fields	2.36	26	39	8	11	10	5
Hiking trails	2.71	19	34	11	14	16	6
Swimming facilities	2.83	20	28	13	15	18	6

7. Would you support condominium or multi-family development if it resulted in the preservation of more open space than would be the case with an equivalent number of single-family dwellings?

		%	
1	Strongly support	16	
2	Somewhat support	25	
3	Uncertain	12	Mean 3.17
4	Somewhat oppose	18	
5	Strongly oppose	27	
	No Response	2	

8. Assume that a developer has purchased a 40-acre parcel of land in the undeveloped portion of South Berwick where there is a 2-acre lot size requirement. He plans to build houses. Which of the following development patterns would you prefer to see on this parcel?

	%	
1 20 homes, each with a 2-acre lot	27	
2 20 homes on 20 acres, with the remaining 20 acres permanently preserved as space.	36	Mean 2.31
3 20 homes on 10 acres, with the remaining 30 acres permanently preserved as open space.	20	
4 Other	9	
5 Uncertain	5	
No Response	2	

9. Would you support the expenditure of Town funds, even if taxes go up, to acquire and protect more open space, either through the purchase of land and/or easements?

	%	
1 Strongly support	26	
2 Somewhat support	32	
3 Uncertain	13	Mean 2.61
4 Somewhat oppose	12	
5 Strongly oppose	16	
No Response	1	

#### COMMUNITY SERVICES

10. In order to help reduce the volume of solid waste, do you support additional efforts to recycle and charge fees to dispose of items which cannot easily be recycled?

	%	
1 Strongly support	44	
2 Somewhat support	26	Mean 2.16
3 Uncertain	8	
4 Somewhat oppose	10	
5 Strongly oppose	10	
No Response	2	

11. From the municipal services below, which do you believe are the most important? Please write in your five priorities for spending your tax dollars. (Note: The relatively high means are the result of ranking priorities, and should not be interpreted as negative response; rather the means provide a way of comparing the relative strengths of the categories.)

#### 1. Recreation facilities

	%	
1 First priority	2	
2 Second priority	5	
3 Third priority	5	Mean 3.58
4 Fourth priority	5	
5 Fifth priority	10	
No Response	72	

Libraries

	%	
1 First priority	0	
2 Second priority	5	
3 Third priority	3	Mean 3.54
4 Fourth priority	4	
5 Fifth priority	6	
No Response	81	

3. Fire Department

	%	
1 First priority	20	
2 Second priority	24	Mean 2.45
3 Third priority	19	
4 Fourth priority	10	
5 Fifth priority	5	
No Response	21	

4. Maintenance and upgrading of roads

	%	
1 First priority	4	
2 Second priority	7	
3 Third priority	8	Mean 3.48
4 Fourth priority	13	
5 Fifth priority	11	
No Response	57	

5. Rescue Service

	%	
1 First priority	4	
2 Second priority	8	
3 Third priority	14	Mean 3.31
4 Fourth priority	10	
5 Fifth priority	10	
No Response	55	

6. Municipal offices and services

	%	
1 First priority	2	
2 Second priority	3	
3 Third priority	3	Mean 3.50
4 Fourth priority	5	
5 Fifth priority	6	
No Response	80	

7. Police Department

	%	
1 First priority	13	
2 Second priority	25	Mean 2.63
3 Third priority	20	
4 Fourth priority	10	
5 Fifth priority	7	
No Response	26	

8.	<u>Health services</u>		
		%	
	1 First priority	2	
	2 Second priority	2	
	3 Third priority	4	Mean 3.60
	4 Fourth priority	8	
	5 Fifth priority	5	
	No Response	80	
9.	<u>Elderly services</u>		
		%	
	1 First priority	2	
	2 Second priority	3	
	3 Third priority	5	Mean 3.83
	4 Fourth priority	7	
	5 Fifth priority	11	
	No Response	72	
10.	<u>Day care services</u>		
		%	
	1 First priority	0	
	2 Second priority	3	
	3 Third priority	2	Mean 3.53
	4 Fourth priority	3	
	5 Fifth priority	3	
	No Response	88	
11.	<u>Schools</u>		
		%	
	1 First priority	45	Mean 1.94
	2 Second priority	5	
	3 Third priority	8	
	4 Fourth priority	10	
	5 Fifth priority	4	
	No Response	28	
12.	<u>Water and Sewer Service</u>		
		%	
	1 First priority	3	
	2 Second priority	6	
	3 Third priority	5	Mean 3.66
	4 Fourth priority	10	
	5 Fifth priority	13	
	No Response	64	

RESIDENTIAL DEVELOPMENT

2. How do you feel about the following statements?

a. *"The Town should take steps to see that future residential growth occurs primarily areas that can be served by public water and public sewer?"*

	%	
1 Strongly agree	25	Mean 2.71
2 Somewhat agree	26	
3 Uncertain	15	
4 Somewhat disagree	17	
5 Strongly disagree	15	
No Response	2	

b. *"South Berwick should continue to limit the number of residential dwelling units built on a yearly basis."*

	%	
1 Strongly agree	69	Mean 1.57
2 Somewhat agree	17	
3 Uncertain	3	
4 Somewhat disagree	5	
5 Strongly disagree	5	
No Response	1	

13. In 1988, the median selling price of an existing home in South Berwick was approximately \$110,000. First-time house purchasers with a 1988 median family income of \$29,900 (County average) had only about 67% of the income necessary to purchase a home at this price. How do you feel about the following statement? *"The Town should encourage the construction of housing at a price closer to what a median income family can afford."*

	%	
1 Strongly agree	34	Mean 2.54
2 Somewhat agree	22	
3 Uncertain	10	
4 Somewhat disagree	13	
5 Strongly disagree	17	
No Response	5	

FINALLY, WE WOULD LIKE TO ASK YOU A FEW QUESTIONS FOR STATISTICAL PURPOSES.

14. How many years have you lived in South Berwick?

	%
Less than 5 years	42
6-15 years	21
16-25 years	10
More than 25 years	23
No response	4

15. What is your present age?

	%
Less than 18 years	0
19-44 years	59
45-64 years	23
More than 64 years	13
No response	6

16. How many children do you have in school?

	%
1 child	15
2 children	15
3 children	4
4 children	1
No children	61
No response	5

17. How many pre-schoolers?

	%
1 child	17
2 children	4
3 children	0
4 children	0
No preschoolers	74
No response	5

18. How many people live in your household?

	%
1 person	9
2 people	35
3 people	21
4 people	23
5 people	8
6 people	1
No response	4

19. What was your approximate total household family income from all sources in 1988? (circle number)

	%
Less than \$15,000	9
15,001 TO 25,000	13
25,001 TO 35,000	19
35,001 TO 50,000	29
50,001 To 100,000	18
Over 100,000	1
No response	12

20. Why do you enjoy living in South Berwick? (circle those that apply)

Small town atmosphere	426 (real numbers)
Close to job centers	222
Close to the ocean	254
Affordable housing/land	139
Schools	184
Taxes	158
Quality of life	352
Quality of services	97
Access to large towns	259
Born here	79

21. Do you rent or own your living quarters?

	%
Rent	8
Own	83
No response	8

Rent per month:	%	Mortgage per month:	%
\$200 or less	1	\$200 or less	3
\$200-399	2	\$200-399	7
\$400-599	4	\$400-599	10
\$600-799	1	\$600-799	13
\$800-999	0	\$800-999	8
\$1000+	1	\$1000+	10
No response	91	No response	49

22. In what type of home do you live?

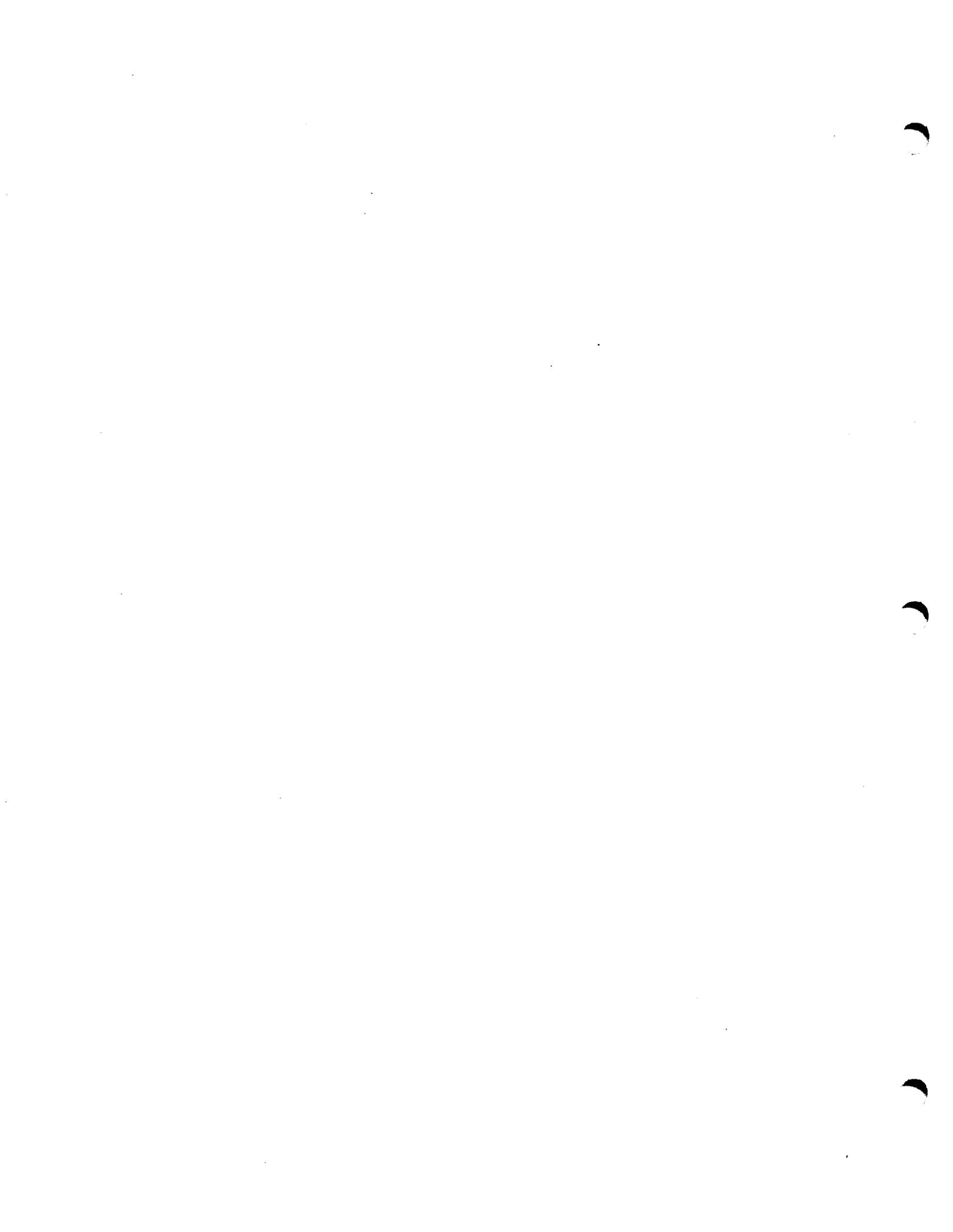
	%
Apartment (multi-family)	5
Duplex	5
Mobile Home	3
Single family house	81
No response	6

23. In what section of Town do you live?

	%
Village	27
Oldfields	14
Knights Pond Rd. - Hooper Sands Area	8
Emery's Bridge	9
Tatnic/Belle Marsh	6
Wichtrot - York Woods Rd.	5
Old Mill	9
Agamenticus Estates	13
Woodland Hills	1
No response	6

24. If employed outside of South Berwick, where?

	%
Greater Portsmouth/Kittery area	36
Durham, Dover or Rochester area	14
Sanford, No. Berwick or Wells area	4
Boston	2
Other	22
No response	21



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## APPENDIX B

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### Capital Improvements Program

The Town of South Berwick has had a Capital Improvements Program in effect for a number of years, certainly prior to the adoption of the Comprehensive Plan. The policies and strategies of the Comprehensive Plan are consistent with the planned expenditures as set forth in the Capital Improvements Plan. However, the Comprehensive Plan does call for certain items to be added to the Capital Improvements Program.

The Capital Improvements Program is updated annually to reflect changing conditions, needs and priorities. It is not directed solely at addressing capital needs generated by new growth; rather, it is aimed at meeting the total needs of the community, many of which would exist regardless of community growth. The CIP addresses expenditures which are a municipal responsibility. It does not address the capital expenditure needs of other jurisdictions such as the South Berwick Water District, the South Berwick Sewer District, or School Administrative District # 35.

South Berwick's 1991-94 Capital Improvements projects, as set forth in the Capital Improvements Program, include the following:

	<u>Amount</u>	<u>Year</u>
<u>Roads and Bridges *</u>		
1. Rebuild 4,500 feet of Thurrell Road: Alignment improvements, removal of ledge, base improvements, asphalt surface	\$173,000	1992
2. Highland, Paul, Union Streets: (All high volume urban streets) Union - drainage work and overlay; Paul - overlay; Highland - drainage and overlay	\$115,000	1994
3. Norton, Jewett, Goodwin: Drainage work, reprofiling, overlay	\$115,000	1994

\* Subject to revision based on roadway management strategy to be completed in 1992.

<u>Public Works Department</u>	<u>Amount</u>	<u>Year</u>
1. Sidewalk Plow	\$55,000	1993
2. Grader	\$85,000	1994
3. 1-Ton Dump Truck	\$30,000	1994
<u>Municipal Buildings</u>		
1. Municipal Building Improvements:		
Prepare concept plans; repair Municipal Building roof, windows, chimney and brickwork; renovate second floor and auditorium; install elevator; obtain site option for public safety building; acquire land for town garage; construct new Town garage; remove underground fuel tanks.	\$1,028,470	1990
2. Acquire land for Public Safety Building	\$155,000	1992
3. Construct Public Safety Building	\$901,800	1993
4. Municipal Building Renovations:		
Renovate first floor of Town Office and basement of Municipal Building	\$406,350	1994
<u>Police Communications Equipment</u>		
1. Base Dispatch Radio	\$30,000	1991
2. Radio Repeater	\$18,000	1994
<u>Fire Equipment</u>		
1. Communications Pagers, Air Bottles	\$11,475	1990
2. Communications Pagers	\$7,500	1991
3. Utility Truck	\$35,000	1993
4. Fire Truck	\$85,000	1994
<u>Transfer Station</u>		
1. Facility Redesign Study	\$30,000	1992
2. Transfer Station Expansion	\$80,000	1993
3. Lot Pavement	\$50,000	1994

<u>Parks and Recreation</u>	<u>Amount</u>	<u>Year</u>
1. Basketball Courts	\$25,000	1993
2. Rehab Recreation Building	\$26,000	1994

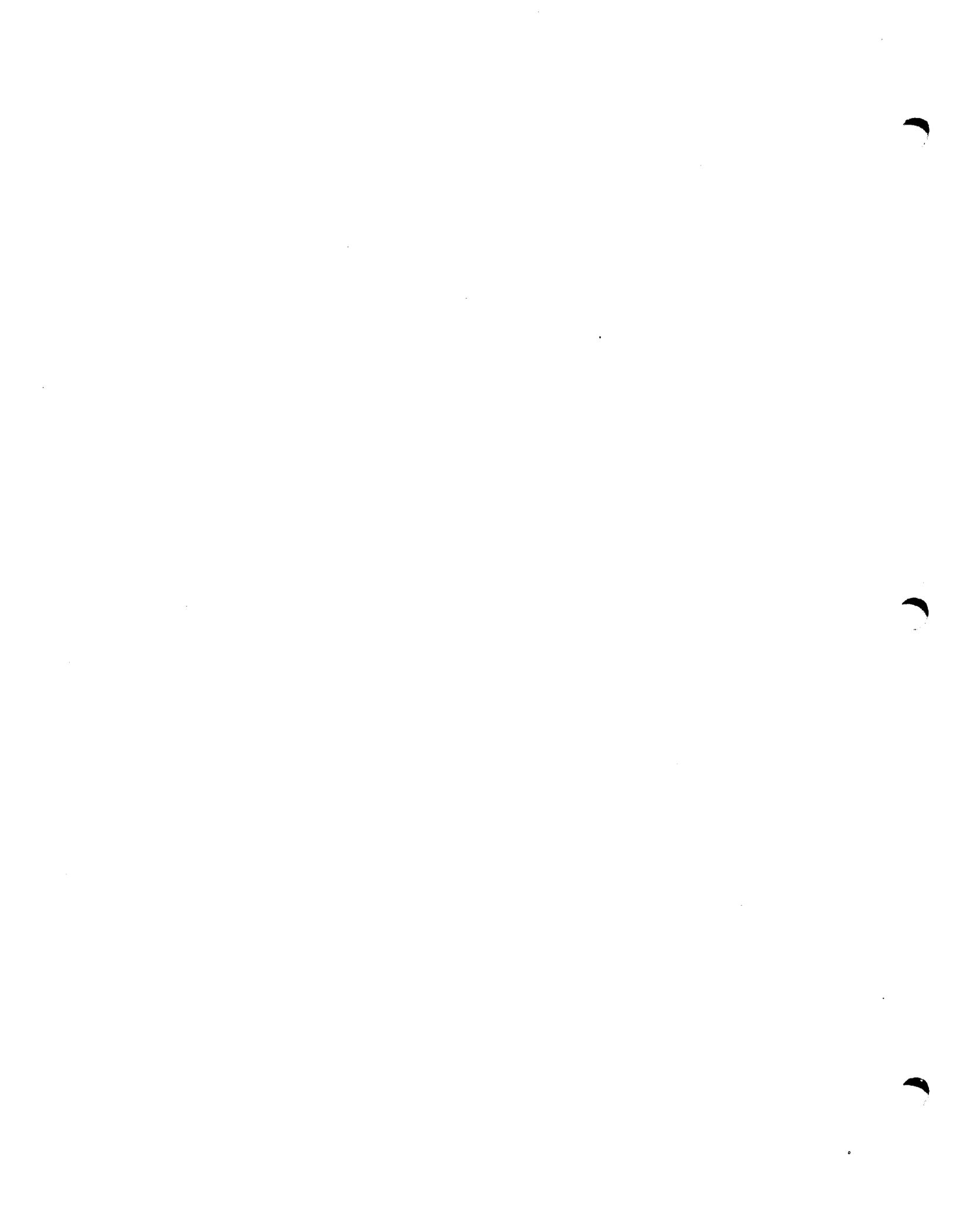
Fixed Assets

1. Voting Machine	\$7,000	1992
2. Guardrails	\$15,000	1994

COMPREHENSIVE PLAN

The Comprehensive Plan strategies calls for a number of expenditures, all of which are aimed at managing the Town's future growth and development. Many of the recommended expenditures are not technically capital expenditures, but are listed here so as to provide a complete picture of Comprehensive Plan expenditures.

	<u>Amount</u>	<u>Year</u>
1. Ordinance Work:		
Amend Subdivision Ordinance, prepare and adopt Site Plan Review Ordinance (money already raised)	\$5,000	1991
2. Wetlands Mapping, Land Cover Mapping (money already raised)	\$15,000	1991
3. Inventory Wildlife Resources	\$5,000	1993
4. Establish Salmon Falls Greenbelt	Unknown	1990
5. Acquire Critical Resources Easements	Unknown	On-going
6. Develop Impact Fees for Sewer System	\$10,000	1995
7. Undertake Comprehensive Road Inventory	\$5,000	1992
8. Obtain Road Engineering Services	\$10,000	On-going
9. Establish Downtown Parking Fund	\$10,000	1990
10. Establish Open Space Fund		
Establish an on-going account for matching funds for open space, recreation purposes.	Unknown	On-going



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## APPENDIX C

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South Berwick's Regional Coordination Program consists of three components: specific strategies aimed at working with adjacent communities; sending copies of the proposed plan to adjacent communities; and addressing regional policies adopted by the Southern Maine Regional Planning Commission.

### Comprehensive Plan Policies/Strategies

South's Berwick's strategies which are aimed at working with adjacent communities include:

Monitoring growth in neighboring communities and coordinating planning efforts (Land Use # 12);

Working with Berwick, North Berwick, Eliot and York to establish a mutual aquifer protection zone (Water Resources, Ground Water, #3);

Establishing a dialogue and exchange of information on watershed planning issues with surrounding communities (Water Resources, Surface Water, #6);

Working with neighboring communities and the State of New Hampshire on the preservation of the Salmon Falls River corridor (Critical Resources, Wildlife, # 5);

Establishing contact with State officials and regional planning groups to encourage the development of Amtrak service to Portland (Transportation # 5);

Establishing a Route 236 corridor development plan in coordination with surrounding towns (Transportation # 6);

Continuing to work with other towns to find a site for the disposal of non-burnable wastes and debris demolition debris (Public Facilities, Solid Waste, # 1);

Coordinating the purchase of materials and capital equipment with adjoining towns (Town Finances, #2).

### Review of South Berwick's Comprehensive Plan

At the same time South Berwick's proposed Plan is sent to the Office of Comprehensive Planning for review, a copy will be sent to each Town abutting South Berwick for review and comment with a cover letter explaining that the municipal time period for review and comment will be the same as the State's. The course of

action is deemed to be potentially more effective, and will potentially result in more in-depth comments, than would a meeting with all surrounding communities to explain the highlights of the Plan.

### Analysis of Regional Policies/Local Policies

The following analysis compares the regional policies and implementation strategies of the Southern Maine Regional Planning Commission to the policies and implementation strategies of the Town of South Berwick. For the sake of clarity and brevity, only those policies which conflict or need further clarification will be compared. For the most part, the policies are similar and need no additional explanation. In many instances the policies or implementation strategies are items which the Town currently acts on and which do not need to be repeated. The regional policies are listed first, followed by a discussion of how a Town policy may differ, or in some cases has not been included.

### General Service Planning

Towns and cities should establish a comprehensive strategy outlining levels of service, capital facility replacement, and financing. Baseline data should demonstrate the present and projected level of service. Municipalities should utilize impact fees, paid by developers of projects which create a demand for capital facilities over and above the level established by the municipality.

The South Berwick Water District, a quasi-public entity, plans to utilize impact fees. The Town of South Berwick envisions using impact fees for parks and recreation and possibly transportation related improvements.

Small public service providers, including quasi-municipal utility districts, should consider whether joint administrative operations would improve service and cut costs.

The Town of South Berwick currently carries out administrative duties for the Sewer District. It is a major strategy of the plan to incorporate the Water and Sewer District into South Berwick town government.

### Water Supply and Distribution

Because of the investment which public water supply and distribution systems represent, districts should prepare and follow an adequate maintenance schedule.

This policy will be implemented by the Water District. However, as with other policies dealing with quasi-public organizations, the Town of South Berwick has little influence over whether these policies are implemented.

## Sewage Collection and Treatment

Municipalities should designate areas within its growth area where public sewer will not be extended or provided, and areas where it will require new developments to connect to public sewer systems (at private expense). Extensions should follow a master plan established for the sewer district or department.

Generally, it is the Town's policy to require private interests to make any required extensions of sewer. The Sewer District, a quasi-public entity, is now preparing an updated facilities plan. This will likely outline new service areas. There are no plans at present to extend the boundaries of the district. However, the Town has been forced to extend their growth area, outside of the existing district boundaries. This will eventually require new boundaries or these areas will not be served by water and sewer.

## Transportation

Municipalities should recognize that major arterial highways are public investments in regional transportation. Commercial "strip" development along these arterials should be discouraged in favor of downtown and node-type development and access management. Land use policies along major arterials should be coordinated with abutting municipalities.

The Town of South Berwick no longer has any vacant commercial land available in the downtown area. The current industrial zone is located just outside of the downtown area, but in such a location that commuter and truck traffic will be forced to go through the already congested downtown. The Town is now in a position where we are forced to examine alternative locations for commercial/industrial growth. As such, the major arterial - Route 236 - provides access to I-95, does not impact the downtown, and also does not impact residential areas to any great degree. The Town is looking at this area for industrial growth which would include controlled access, adequate buffered setbacks, parking in the rear, etc.

The commercial scenario is less clear, although we intend to avoid strip development.

## Education

Municipalities should encourage SAD's ability to instigate capital reserve funds and establish impact fees for school capital costs, where feasible.

Municipalities and School Districts should participate in regional or joint purchase of school capital equipment as a means of reducing costs.

The Town plans to actively work with SAD 35 on mutual long term planning goals. These above policies will be a focus of these discussions.

#### Non-recyclable and Special Wastes

Municipal plans should identify sites within the Town with potential for special waste disposal.

The Town has not developed a policy or plan for this issue, although there is a plan to set aside an area at the Transfer Station for household hazardous wastes.

#### Economic Opportunity

Municipalities should set goals concerning the type and quantity of business and industry desired within the community.

The Town is currently assessing its desirability for industry and commercial development. As stated in the plan, the Town has virtually no industrial development and the industrial park remains vacant. Light industry is preferred. The quantity of industry is unknown as the Town, as this point, would willingly accept any industry.

#### Natural Resources

Municipalities that share a resource with another should create a system for soliciting comments from each other, as part of the continuing planning process, and prior to enacting regulatory measures which could diminish that resource.

This is intended to be done by the Town, if not so specifically stated.

**REGIONAL POLICIES:**

**ABSTRACT OF**

**A PLAN FOR SOUTHERN MAINE, 1990**

THE FOLLOWING POLICIES HAVE BEEN COLLECTED FROM THE TEXT OF THE 1990 REGIONAL PLAN FOR EASE OF USE AND APPLICATION. THEIR WORDING IS IDENTICAL TO THAT IN THE TEXT.

THIS LISTING IS INTENDED TO BE ADVISORY TO MUNICIPALITIES WITHIN THE SOUTHERN MAINE REGION, UNDER THE TENETS OF THE 1988 COMPREHENSIVE PLANNING LAW. TO FACILITATE LOCAL USAGE, THEY HAVE BEEN ANNOTATED WITH THE FOLLOWING KEY:

P: INDICATES POLICY THAT SHOULD BE ADDRESSED DURING THE PLANNING PROCESS

I: INDICATES POLICY THAT SHOULD BE ADDRESSED DURING THE IMPLEMENTATION PROCESS

R: INDICATES POLICY THAT SHOULD BE ADDRESSED BY A REGIONAL (NON-MUNICIPAL) ENTITY

POLICIES THAT ARE NOT PRECEDED BY A "P" ARE NOT INTENDED TO BE ADDRESSED BY A MUNICIPALITY'S COMPREHENSIVE PLAN.

**II: PUBLIC FACILITIES AND SERVICES**

**REGIONAL GOAL:**

To improve the efficiency and effectiveness of public service delivery through formal and informal means of interlocal cooperation and communication.

**GENERAL SERVICE PLANNING**

**Regional Policies:**

- P,I Towns and cities should establish a comprehensive strategy outlining levels of service, capital facility replacement, and financing. Baseline data should demonstrate the present and projected level of service. Municipalities should utilize impact fees, paid by developers of projects which create a demand for capital facilities over and above the level established by the municipality.
- I The joint purchasing of commodities and capital equipment should be expanded and improved. Each municipality should list items for which joint purchasing can result in cost savings. Municipalities should investigate the economic feasibility of using recycled goods.
- R SMRPC should act as an intermediary for joint purchasing where feasible, and should also act as a clearinghouse for innovative methods of managing and delivering services in municipalities. Regional and inter-local solutions should be considered.
- P,R Where local comprehensive plans identify an unmet public service need, they should discuss regional, subregional or interlocal solutions to meet this need. SMRPC should provide technical assistance in assessing viability of solutions.
- I Small public service providers, including quasi-municipal utility districts, should consider whether joint administrative operations would improve service and cut costs.

- R SMRPC should provide assistance to York County in continuing to perform a comprehensive inventory and analysis of its capital facilities and equipment. The county, together with those towns that regularly use those facilities, should establish a budget and timetable for replacement/expansion of them.

### WATER SUPPLY AND DISTRIBUTION

#### **Regional Policies:**

- P,I Each municipality should identify and protect existing or potential public water supply sources accessible to their designated growth area. Protection measures should include development restrictions to ensure the quantity and quality of the source. Existing and potential future sources which cross town boundaries should be protected by mutual action. The necessary level of protection should be based on data collected in the planning process.
- P Municipalities should set standards for development within growth areas, which may include density, configuration or frontage standards, which will allow central water supply and distribution systems where needed in the future.
- I Because of the investment which public water supply and distribution systems represent, districts should prepare and follow an adequate maintenance schedule.

### SEWAGE COLLECTION AND TREATMENT

#### **Regional Policies:**

- P Municipalities should designate areas within its growth area where public sewer will not be extended or provided, and areas where it will require new developments to connect to public sewer systems (at private expense). Extensions should follow a master plan established for the sewer district or department.
- P,I Towns should plan growth areas (both residential and non-residential) which will allow for proper sewage disposal in the future (either public or private), thus not closing out future options. Where densities are such that public sewer will be necessary prior to building, the town should prepare a financing and development strategy.
- I,R Municipalities should require Sewer Districts and Departments under their authority to establish master plans for expansions, improvements, and capacity allocation which addresses identified growth areas. Financial planning should be undertaken to level out the costs of expansions and improvements. These plans should be coordinated with neighboring municipalities. Regional solutions to problems and needs should be considered.
- I Because of the large public investment that sewage collection and treatment facilities represent, sewer systems should be adequately maintained. Collection systems should be rehabilitated to regain capacity lost to infiltration into aging pipes and to separate storm drainage and domestic sewerage.

### SEPTAGE AND SLUDGE DISPOSAL

#### **Regional Policies:**

- I Municipalities should participate in regional or inter-local agreements wherever sewage treatment plants will accept septage from neighboring communities.

- I Sewer districts and departments, in combination with SMRPC, should consider regional solutions to sludge composting and land applications.

## TRANSPORTATION

### **Regional Policies:**

- P,I Municipalities should recognize that major arterial highways are public investments in regional transportation. Commercial "strip" development along these arterials should be discouraged in favor of downtown and node-type development and access management. Land use policies along major arterials should be coordinated with abutting municipalities.
- P,I Municipal plans and zoning should allow for future highway widenings along all "Corridors of Statewide Economic Significance."
- I Municipalities should establish street construction and parking requirements that fairly balance the costs of construction, maintenance, environmental and safety impacts. Growth control shall not be an objective of construction requirements.
- R SMRPC, in conjunction with DOT, should develop basic and simplified intersection as well as road and street guidelines for use by planning boards. Consideration of the level and nature of present and future demand should be built into the standards.
- P,I Municipalities should encourage the increased use of public (inter-city and intra-city) transportation in conjunction with a system of park and ride lots. Each city or town should identify the need for ride sharing or public transportation and allow or encourage park and ride lots where public or private capacity exists.
- R A centralized information clearinghouse for ride sharing should be established at SMRPC. Consideration should be given to coordinated marketing and promotions. A regional ride sharing program should be promoted.

## EDUCATION

### **Regional Policies:**

- I Municipalities should encourage SADS' ability to instigate capital reserve funds and establish impact fees for school capital costs, where feasible.
- I,R Municipalities and School Districts should participate in regional or joint purchase of school capital equipment as a means of reducing costs.
- P,R Towns within a school administrative district should seek its participation in growth management.
- P Towns which cannot offer a full range of educational programs should consider regional solutions.
- I,R Municipalities, school districts, and regional vocational centers should work with local industry leaders to provide training which is needed by the industry in ways which will keep students in school.

## PUBLIC SAFETY

### **Regional Policies:**

- I,R Municipalities and county sheriffs should investigate opportunities for cost savings and better services through joint purchasing and cooperation.

- I Municipalities should enter into written mutual aid agreements for police or fire protection with departments of neighboring towns or cities, where such aid would provide a cost savings or more effective service.
- I,R The sharing and/or joint ownership of fire and/or rescue equipment should be discussed with the volunteers who presently provide a very efficient service to their town but also take great pride in "ownership." Towns should participate in joint bidding for public safety equipment.

### AIRPORTS

#### Regional Policies:

- P,I Municipalities should evaluate the external effects of local airport facilities. Airports should be insulated from siting of inappropriate land uses, and existing land uses should be protected in any airport expansion project and from air traffic.
- R Regional airport facilities should not compete with each other for funding. A regional or state-level study should set the level of airport service needs for the region.

### HUMAN NEEDS

#### Regional Policies:

- P,I Municipal comprehensive plans should institute or encourage human service programs which will reduce the instances of adolescent pregnancy, reduce family stress, chemical dependence and domestic violence, and improve crisis intervention.
- P,I Municipalities should plan to prevent displacement of groups in risk of homelessness, including but not limited to elderly, disabled, low income, by any of the following techniques:
  - Local zoning should reduce the likelihood of tenant displacement by discouraging the type of economic growth which would result in displacement.
  - Towns can provide tax abatements where appropriate.
  - Towns can provide referral and access to appropriate intervention services for the homeless.
  - Towns can provide shelter for those in emergency situations.

## Subsection: SOLID WASTE

### RECYCLING

#### Regional Policies:

- R SMRPC should establish a regional information clearinghouse, with state and/or county funding, to gather and distribute educational materials and data on costs, benefits, and techniques of recycling programs.
- I Municipalities should encourage educational programs on recycling and source reduction for children in local schools and for adults.
- I Municipalities in the region should establish local or inter-local recycling program with the goal of waste stream reduction of 25% by Jan. 1, 1992, and 50% by Jan. 1, 1994, as required by state law. Leaves and yard wastes must be composted by Jan. 1, 1992.

- I Municipalities should participate in at least one regional recycling entity with the objective of using a centralized facility and larger volumes to find higher prices and long-term markets for recyclables such as white goods, stumps, glass, paper, plastics, aluminum, and other items with potential for reuse.

### NON-RECYCLABLE AND SPECIAL WASTES

#### **Regional Policies:**

- I Municipalities should participate in at least one regional entity with sufficient legal authority to develop site(s) in the region for processing and disposing of all non-hazardous waste and all incinerator ash, and for compensating the municipality where the regional disposal facility would be located. Planning should anticipate only wastes generated within the designated region and should consider sites outside the region only after local sites have been evaluated.
- P Municipal plans should identify sites within the town with potential for special waste disposal.

### BULKY WASTES

#### **Regional Policy:**

- I Each municipality should make provisions within or outside the municipality for disposal of bulky wastes and recycling of usable bulky items.

### HOUSEHOLD HAZARDOUS WASTE

#### **Regional Policy:**

- R SMRPC should implement a regional household hazardous waste management strategy as soon as funding (at least 50%) is available from the state.

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## **III: HOUSING AND ECONOMIC DEVELOPMENT**

### **THE HERITAGE OF SOUTHERN MAINE:**

#### **REGIONAL GOAL:**

To create an awareness of the importance of identification and preservation of historic and archeological resources.

#### **Regional policies:**

- P Municipalities should survey and identify all important historical and archaeological sites and provide a bibliography of sources of historical records that deal with these sites with the goal of protecting and preserving them.
- I Municipalities should investigate preservation and adaptive reuse techniques appropriate to the preservation of historic roads, buildings, or sites.
- I Municipalities should increase awareness of importance of sites through public

education programs, a Marker Program that identifies and interprets these sites, or an Historic District Commission, or similar body, in each town, to provide site or area protection.

## **ECONOMIC OPPORTUNITY IN THE SOUTHERN MAINE REGION:**

### **REGIONAL GOAL:**

To encourage a diversity of commercial development, and expansion of the economic base wherever adequate resources and infrastructure support it.

### **Regional Policies:**

- P Municipalities should set goals concerning the type and quantity of business and industry desired within the community.
- P,I Municipalities should establish adequate and suitable land area and support services for existing and desired level of business and industry. This may be accomplished through planned implementation of zoning performance standards, impact fees, and cooperation with the state and neighboring towns.
- I Municipalities should establish development review processes which will not inhibit or delay the development of the desired commercial/industrial mix.
- P Municipalities should promote housing within the town suitable to employees of the existing and desired commercial mix.
- P,I Municipalities should ensure that planning and zoning does not restrict access to comprehensive and affordable dependent care services, and encourage cooperative efforts between public and private sectors.
- I,R Educational systems should increase opportunities for training programs for anticipated job markets.

## **HOUSING IN THE SOUTHERN MAINE REGION:**

### **REGIONAL GOAL:**

To encourage a diversity of affordable housing throughout the region.

### **Regional Policies:**

- I Municipalities should utilize development regulations and standards to provide greater flexibility and opportunity for affordable housing types.
- P Municipalities should promote the housing types needed based on their evaluation of local demographic trends and the commercial mix identified, so that housing is available near job centers.
- I Municipalities should utilize techniques available at the local level to reduce the cost of housing production, including the use of town lands or variable densities.
- I Municipalities should promote techniques which maintain affordability of units over time, such as state and federal grant programs and deed restrictions.

# IV: NATURAL RESOURCES

## REGIONAL GOAL:

To maintain and, where possible, improve the quality of our natural environment through actions that manage resources as a system rather than as local segments.

## IV. A NATURAL RESOURCES

### REGIONAL RESOURCES

#### Regional Policies:

- R SMRPC should prepare and distribute a town-by-town list of Significant Resource Areas to each affected town, together with an explanation of the potential impacts of development upon each.
- R SMRPC's inventory of Significant Resource Areas should go to appropriate state boards, agencies and legislators, with the joint urging of SMRPC and towns that proposed state activities which could impact these areas be subject to local advisory review.
- P,I Municipalities that share a resource with another should create a system for soliciting comment from each other, as part of the continuing planning process, and prior to enacting regulatory measures which could diminish that resource.

### GROUNDWATER

#### Regional Policies:

- P,I In areas projected not to be served by public water or sewer, municipalities should use the dilution potential of the soil as one consideration in setting minimum lot sizes, and require new developments to demonstrate an increase in nitrates at all wellheads and property lines no greater than one half the available nitrate loading. (Available loading equals the difference between 10 mg/liter and the pre-existing background level.)
- P,I Municipalities should identify in general terms a public water supply area accessible to their growth area, and enact standards to provide those areas rigorous protection from nitrate and virus contamination.
- P Municipalities should identify activities intended to be allowed within town which may utilize or produce potential pollutants and permit those activities only after it has adopted and applied adequate and enforceable performance standards.

### LAKES, STREAMS AND WETLANDS

#### Regional Policies:

- P,I Each town should rank its lakes and ponds according to their existing quality and potential vulnerability to pollution. Within the watersheds, especially the most valuable or threatened ones, the town should implement development standards and practices designed to maintain or improve lake water quality.

- P Municipalities should plan future motorized craft access sites, both public and private, to eliminate conflicts (in both timing and location) with nesting water fowl and public swimming areas, and reduce the potential for shoreline erosion.
- R IFW, the authority to close lakes to motorized traffic, should base closure decisions upon criteria which include impact on the natural environment, including aquatic wildlife, buffer areas, and overall water quality.
- I Municipalities should adopt the recommendations of the IFW report cited earlier, except that forest management activities should be exempted where adequate forest practice standards governing cutting in and around the protected resource are in place.
- I Municipalities should incorporate as a minimum the definition of wetlands now used in the Natural Resource Protection Act into local regulatory measures.
- I Municipalities should consider current use tax abatements and/or conservation easements for undeveloped portions of resource buffer areas.
- I,R Federal, state and local government should establish cost sharing and coordination programs for acquisition of land in critical resource areas.

### ENDANGERED SPECIES

#### **Regional Policy:**

- P,I Municipalities should identify and protect known populations of rare, threatened or endangered species, and unique natural areas, by positive management strategies for the areas. They should also set performance standards for the protection of any populations which may be identified in the future.

### FARM AND FOREST

#### **Regional Policies:**

- P,I Municipalities should recognize and encourage currently-available property tax incentive systems in their planning. The state must take a strong role by standardizing assessment practices, providing more training, and perhaps endorsing "current use" assessments for resource lands.
- P Municipalities should incorporate existing farm and forest enterprises into the locally-planned open space system (see "Open Space").
- I,R The state or, by default, municipalities, should adopt systematic management, harvesting and conservation practices for forest and agriculture. SMRPC should cooperate with SCS in producing models.

### OPEN SPACE

#### **Regional Policies:**

- P,I Every municipality should implement a strategy for coordinated local acquisition (or control) and management of open space. The strategy should contain components addressing locational, legal, financing and administrative issues. Preference should be shown to connected open space segments, that encompass wildlife corridors, rivers and streams, or other identified critical resources. These areas should be shown as "preferred open space" on a map and have an indication of which open space values (e.g., wildlife corridor, recreation site) each area would provide.

- R SMRPC should investigate and develop the capacity to act as a regional broker for Development Rights Transfer Systems.
- P Municipalities should seek instances of shifting land use patterns (e.g., abandoned railroad beds, gravel pits) to enhance contemporary open space and recreation needs.

### PUBLIC ACCESS

#### Regional Policies:

- I Municipalities should allocate sufficient resources to provide for proper maintenance and upkeep of existing access sites. Beach access fees should not exceed actual maintenance and acquisition costs.
- I Municipalities, when developing access sites, should plan an intensity of use low enough to prevent resource degradation by measures such as the following:
- Avoid access sites near bird nesting sites and shellfish areas
  - Favor areas requiring minimum construction
  - Avoid long ramps or wharfs across marshes or flats
  - Encourage boating access to harbors and major rivers, but limit access to smaller streams and ponds to non-power or pedestrian access
  - Submit plans for comment by the State Department of Inland Fisheries and Wildlife, local Conservation Commissions and Planning Boards.
  - Acquire development restrictions or other rights where needed to preserve traditional access sites.
- I Municipalities should encourage the development and use of public transportation to access sites and satellite parking to reduce near-site parking impacts.
- P Coastal municipalities should include in comprehensive plans a municipal coastal access element, identify and mark public access sites.
- P Municipalities should ensure the greatest possible public access to areas while protecting the quality of the natural resources and the rights of private property owners. Access should be managed for regional as well as local benefits.
- I Coastal municipalities should require, through subdivision regulations or site plan review, open space and height restrictions for buildings in new coastal developments, where visual access has been identified as an issue.

## IV. B COASTAL RESOURCES

### WATER QUALITY

#### Regional Policies:

- I Municipalities should work to improve the quality of waters in the region by establishing monitoring programs (in cooperation with the State DEP) and time tables for meeting or exceeding state and federal water quality standards.
- P Municipalities should identify point and non-point pollution sources and establish a strategy to reduce their impact. Consideration should be given to, among other things, the cumulative impacts of reductions in permeable soil area, soil erosion, and the potential for salt water intrusion into the groundwater system. Planning should address boat discharges: require all new marinas to provide pumping facilities and year-round facilities for oil and refuse disposal.
- I Municipalities should require that new development in coastal watersheds cause no degradation of water quality or provide and implement a mitigation plan.

## COASTAL NATURAL RESOURCES

### Regional Policies:

- I Municipalities should work to restore the productivity and usefulness of intertidal areas, by restoring natural vegetation to resource areas which have been disturbed and limiting development along barrier islands.
- P Municipalities should identify and include coastal heritage areas, intertidal and undeveloped portions of barriers in their open space system.

## HARBOR MANAGEMENT:

### Regional Policies:

- P Municipalities should plan to preserve or enhance existing water-dependent land uses around the harbor.
- P Municipalities should develop a harbor management element in their plan, addressing at least mooring allocation procedures and the compatibility of shorefront and water uses.

## SEA LEVEL RISE AND COASTAL HAZARDS

### Regional Policies:

- I Municipalities should use the latest sea level rise and coastal erosion data for southern Maine to develop local setback and elevation requirements which will preserve the value of coastal properties over the long term.
- P Municipalities should reject structural responses to sea level rise in favor of planning that provides space for the natural evolution of the shoreline.
- R SMRPC and the state, in conjunction with municipalities, should increase public awareness of coastal hazards.