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# POPULATION CHARACTERISTICS

## Introduction

The following information presents an overview of recent population trends for Waterford and surrounding communities. An examination of population trends and the characteristics of that population is important to the understanding of the anticipated growth that will occur over the next ten years and the future demands that it will put on various community services.

## Population Growth

The increase in Waterford's population since 1980 has been dramatic. In the decade of the 1980s, the population increased by 346 people or 36%. Between 1980 and 1990, a population increase of 348 or 36% was realized. The total increase in the last two decades has been 694 people or 73% since 1980. It has been estimated that population has continued to increase with a 1999 population of some 1,580.

### Population Growth Town of Waterford

Year	Population	Amount of Change	Percentage of Change
1980	951	191	25.1%
1990	1,299	348	36.6%
1999	Est. 1,586	287 (316 for 10 years)	24.3%

Source: US Census & Town of Waterford

When Waterford's population increase is considered with the cumulative effects of the population growth in the 1980s and in surrounding communities, substantial pressure has been placed on Waterford's municipal services, infrastructure and natural resources. The result of this growth will require years of careful planning of local investment just to meet current and future needs created by the cumulative effect of growth. Further, the trend toward smaller household sizes (thus more housing units) increased commuting to work and to shop, and an aging population will place additional stress on sensitive natural resources and limited and overburdened property taxes.

Most of the communities around Waterford experienced significant population growth in the decade of the 80s. Greenwood and South Paris grew more slowly at 6% and 7% respectively. Bethel was the only community to have slightly lost population. Statewide population estimates for 1997 indicate a much slow rate of population change.

**Population Change in Communities  
Adjacent to Waterford**

<b>Community</b>	<b>Population 1980*</b>	<b>1990</b>	<b>Change # People</b>	<b>Percent</b>	<b>1997 Estimate</b>	<b>+/-</b>	<b>Percent</b>
Bethel	2340	2319	(21)	(0.9)	2456	127	5.5
Bridgton	3528	4314	786	22.3	4325	18	0.4
Fryeburg	2715	2963	248	9.1	2944	(24)	-0.8
Greenwood	653	689	36	5.5	712	23	3.3
Harrison	1667	1928	261	15.7	2045	94	4.8
Lovell	767	883	116	15.1	990	102	11.8
Norway	4042	4745	703	17.4	4636	(118)	-2.5
Otisfield	897	1130	233	26.0	1338	202	17.8
South Paris	4168	4476	308	7.4	4406	(86)	-1.9
Stoneham	204	224	20	9.8	215	(9)	-4.0
Sweden	163	222	59	36.2	231	9	4.1
Waterford	961	1297	346	36.4	1470	171	13.2

Source: U.S. Census

Waterford's natural population increase is listed in the table below. Natural increase is the net total increase/decrease in population as a result of births and deaths in a given year. This information is helpful because the remaining change in population is due to migration. The next table illustrates the growth in population in Waterford in the 1970s and the 1980s as a result of natural increases and migration. This table clearly shows that the growth in population has been the result of dramatic migration to Waterford.

**Waterford Births/Deaths\***

	<b>Births</b>	<b>Deaths</b>	
1988 – 1970 Average	14	9	5
1995	13	17	(4)
1996	20	16	4
1997	11	19	(8)
1998	17	12	5

Source: Town of Waterford

### Population Growth from Natural Increase and Migration

	Natural Increase	Net Migration	Total
1970-1980	34	157	191
1980-1990	79	269	348
1990-1999	(45)	332	287

Source: US Census

### Seasonal Population

Seasonal population is a measure of the number of people in town who are not year-round residents. This includes people staying for extended periods of time in camps and other seasonal accommodations. Seasonal population is a major factor in Waterford. Seasonal homes and several large campgrounds could draw as many as 3,000 people during peak summer periods.

The Public Affairs Research Center at Bowdoin College estimated that the total seasonal population for Waterford (that is, non-year-round persons) was 753 in 1970. To estimate current total seasonal population (total seasonal capacity), the following equation was employed.

$$P^s = P^c + P^l + P^{sh}$$

- $P^s$  = total peak seasonal population
- $P^c$  = campsite population
- $P^l$  = lodging population
- $P^{sh}$  = seasonal home population

In computing the seasonal population, the following reasonable occupancy standards were applied.

- 4 persons per campsite
- 2 persons per lodging room
- 4 persons per seasonal home

Therefore, from the preceding assumptions,

$$P^s = (382 \times 4) + (50 \times 2) + (393 \times 4) = 3,200$$

Therefore, in 2000, it is estimated that Waterford's peak seasonal population could increase by 3,200 persons. However, it would be a rare occurrence that all seasonal dwellings and campsites would be at maximum capacity on any given day. A more realistic seasonal population increase is expected to be approximately 2,000 people.

### Projected Year-Round Population

Anticipating population growth is an integral part of the comprehensive planning process. Depending on future population characteristics, various community needs and facilities can be identified as well as providing an indication of housing demand. It should be understood, however, that predicting population with great accuracy at a single community level is difficult.

Population change is a result of two primary factors, natural increase and migration. Natural increase is derived from the number of births minus the number of deaths over a specific period. Migration is the number of persons

moving into or out of a community over a period of time. It is expected that over the planning period, in-migration will be the controlling a factor in population growth.

Based on the projects, it has been estimated that the year round population will reach 2020 in the 2009.

**Population Projections**

(@ 2.43 % P.A.)

	<b>Straight Line</b>	<b>Curve</b>
1999	1586	1586
2000	1625	1618
2001	1664	1650
2002	1704	1687
2003	1746	1725
2004	1788	1750
2005	1832	1775
2006	1876	1810
2007	1922	1845
2008	1969	1898
2009	2016	1950

Source: Town of Waterford

**Age Distribution**

The following table shows the age distribution of people living in Waterford in 1980, 1990 and 1999. These tables illustrate three noteworthy trends; the number of school age children increasing very slightly, but is decreasing as a percentage of the population. The number of adults ages 18-44 years is decreasing both in number and as a percentage of the population. Finally, the number of people 45-65 years increasing significantly. The median age of Waterford 1990 population was 36.8 years which was significantly older than Oxford County and the State.

These changes in demographics correlate with national and State trends. As the “baby boom” generation ages, they increase the percentages in their age group. Further, the trend towards smaller families decreases the percentages of school age children in the population. Finally, the general aging of the population and increased life expectancy is resulting in a larger percentage of the population in the 65-plus age category. These trends are further underscored by the large migration to Waterford. This migration is likely, in most part, “baby boomers” and retired adults further increasing the percentages in their age groups.

As this trend of an aging population continues into the 2000s, it may affect the public services needed and desired by an older population, specifically, public safety services (including police, fire and rescue services). Additionally, an older population is more likely to be on a fixed or limited income, and therefore, increasing property taxes will create a greater burden on the elderly.

**Population by Age Distribution**

	<b>1980</b>	<b>1990</b>	<b>1999</b>
# Persons			
0-4	64	96	92
5-17	195	214	222
18-44	372	527	325
45-65	208	279	714
65+	<u>112</u>	<u>183</u>	<u>238</u>
	<b>951</b>	<b>1,299</b>	<b>1,591</b>
% of Total			
0-4	6.7	6.4	5.8
5-17	20.5	18.0	14.0
18-44	39.1	42.7	20.5
45-65	21.9	18.9	45.0
65+	11.8	14.0	15.0

Source: US Census & Town of Waterford

**Educational Attainment**

Waterford's educational attainment levels are consistent with the averages for the State of Maine.

**Education  
Persons 25 Years and Older**

<b>Attainment</b>	<b>Number of People</b>		<b>Waterford %</b>		<b>State %</b>
	<b>1980</b>	<b>1990</b>	<b>1980</b>	<b>1990</b>	<b>1990</b>
Less than High School	228	230	34	26	21
High School Graduate	290	281	42	32	37
College	171	372	25	42	42

Source: US Census

**Income Characteristics**

In 1989, almost 45% of the households in Waterford had income of less than \$25,000, and 19% had income of more than \$50,000. This means that a majority of the households in Waterford have very modest income, as in Maine. Thus, the data indicates many households in Waterford may have a limited ability to pay higher property taxes to fund services and infrastructure maintenance and improvement costs.

### Income Distribution

Household Income	Number of Households		Waterford %	
	1980	1990	1980	1990
Less than \$15,000	132	117	48.7	24.2
\$15,000 - \$24,999	98	97	36.2	20.1
\$25,000 - \$34,999	29	95	10.7	19.7
\$35,000 - \$49,999	6	83	2.2	17.2
Greater than \$50,000	6	90	2.2	18.7
	<b>1980</b>	<b>1990</b>		
Per Capital Income	6,088	12,507		
Median Household	13,145	28,438		
Population Below Poverty Level	13.1%	12.0%		
* Family of four persons below \$12,674				

Source: US Census

### Employment by Occupation

Over the 10-year period between 1980 and 1990, there was a shift in occupations of Waterford residents. Gains were made in service occupations and a loss in crafts and farming/forestry. This trend reflects the state employment trends over the same period.

### Employment by Occupation

Occupation	# of Persons		Waterford %	
	1980	1990	1980	1990
Professional/Mgr.	78	133	18.2	21.9
Technical	11	9	2.6	1.5
Sales/Admin. Support	75	135	17.5	22.2
Service	39	85	9.1	14.0
Crafts/Precision Prod.	79	82	18.5	13.5
Operators/Labor/Trans.	93	143	21.7	23.5
Farm/Forestry/Fish	53	21	12.4	23.5
	<b>428</b>	<b>608</b>		



# HOUSING

## Introduction

Local housing characteristics are an essential part of a comprehensive plan. An understanding of housing trends, availability, conditions and affordability is important to the planning process. Considering age characteristics, housing costs and income levels will help to determine the types of housing needed over the planning period. As housing development has increased, so has the price of land and the costs of construction.

## Housing Growth

A significant number of new housing units have been developed in Waterford since 1970. The total number of homes, year-round and seasonal, has increased from 410 in 1970 to an estimated 934 in 1999, a 127% increase.

### Housing Growth

	1970	1980	1990	1999
Total Units	410	557 (+36%)	766 (+38%)	934 (+22%)
Year-round Units	273	407 (+49%)	515 (+26%)	541 (+5%)
Seasonal Units	147	150 (+2%)	251 (+67%)	393 (+57%)

Source: US Census & Town of Waterford

Seasonal housing units are also an important component of the housing stock in Waterford. Forty-two percent of the housing units in Waterford were considered as seasonal in 1999. This is an increase of 246 seasonal units or 167% from 1970. The percentage increase in seasonal units may be skewed, however, because the 1970, 1980 and 1990 data was derived from U.S. Census which may have underestimated seasonal units. The 1999 data was acquired through a comprehensive land use survey, done by the Comprehensive Plan Committee, which is considered a more accurate count. However, the information does illustrate that seasonal housing is a significant portion of the housing stock in Waterford, as well as being an important segment of the local economy. The seasonal housing stock provides significant property tax revenue for the community with fewer demands on municipal services, employment for local residents, and the source of additional revenue imported from outside the local area and spent on goods and services locally.

The number of mobile homes has also increased significantly since 1970. In 1970, there were 14 mobile homes in Waterford; today, there are 83. This is an increase of 69 mobile homes, or 493%, in twenty years. As the need for housing grew, specifically for more affordable housing, mobile homes have become an important alternative for low- and moderate-income families.

### Housing Stock by Type

	1970		1980		1990	
	Units	%	Units	%	Units	%
Single-Family (and Farms)	237	87	354	87	440	82
Mobile Homes	14	5	36	9	83	15
Multi-Family	22	8	17	4	17	3
<b>Total Units</b>	<b>273</b>	<b>100</b>	<b>407</b>	<b>100</b>	<b>540</b>	<b>100</b>

Source: US Census

### Housing Stock and Condition

Housing in Waterford is primarily single-family in nature. Homes typically occur along well established roads and near the many lakes and ponds. Of the 540 year-round homes in Waterford surveyed in 1990 (table below), 440, or 82%, were single-family and farms, 83, or 15%, were mobile homes and 17, or 3%, were multi-family homes. The majority of homes in Waterford, including mobile homes, are located on single-family lots.

### Seasonal vs. Year-Round Housing Distribution Town of Waterford, 1990

	Units	Percent
Single-Family Homes	426	46.0
Mobile Homes	83	9.0
Seasonal Homes	399	43.0
Farms	14	1.5
Multi-Family Homes	17	0.5
<b>TOTAL</b>	<b>939</b>	<b>100.0</b>

Source: 1990 Land Use Survey, Comprehensive Plan Committee

The majority of the homes appear well kept and in good condition from a windshield survey of the community. The housing stock is relatively old, however. In the last two decades, a significant number of new homes have been constructed. It should be noted that many of the older buildings in Waterford Flat are listed on the National Historic Register and are in good condition.

### Affordability of Housing

The market pressures of the 1980s and 90s caused housing prices to increase dramatically through most of Maine. This has been the case in Waterford with the average sale price of homes almost doubling. This increase is a significant factor in the availability of affordable housing for the average wage earner in Waterford or those who may wish to locate to Waterford. These factors have resulted in lower to moderate income residents finding difficulty in finding affordable, safe and decent housing.

Essential to community growth and development is the availability of affordable housing either renter or owner-occupied. The lack of safe affordable housing may force young individuals or families to leave Waterford and hinder economic growth and development because of the lack of such housing for new employees.

The 1990 Census reported that 95% of all renters in Waterford paid less than \$500 per month for rent. Information collected in 1999 indicates that rents have not increased significantly since the time of the 1990 Census.

**Costs Rental Housing**

	<b>1 Bedroom</b>	<b>2 Bedroom</b>	<b>3 Bedroom</b>	<b>4 Bedroom</b>
1988	343	408	483	548
1999	375	425	500	575
%	9%	4%	3%	5%

Regional sale prices of homes increased significantly over the period from 1986/87 to 1997/98, the greatest being in Stoneham (149%) and the lowest in South Paris(41%).

**Average House Selling Prices  
Regional Communities**

<b>Town</b>	<b>1986/87</b>	<b>1997/98</b>	<b>% Change</b>
Greenwood	\$36,650	\$60,991	(+66%)
Lovell	\$53,481	\$130,410	(+144%)
Norway	\$45,517	\$76,460	(+68%)
South Paris	\$59,274	\$83,483	(+41%)
Stoneham	\$48,000	\$119,408	(+149%)
Waterford	\$43,958	\$86,830	(+97%)

Source: Waterford Comprehensive Plan Committee

The real estate transfer tax declaration forms provide sales prices of all homes sold including mobile homes. As the table below shows, Waterford’s average sale price of residential housing increased from \$44,000 in 1986/87 to \$87,000 in 1997/98.

**Average House Selling Prices  
Waterford**

	<b>1986/87</b>	<b>1997/98</b>	
All Sales	\$43,958	\$86,830	(+97%)
Residential		\$94,315	
Waterfront		\$104,708	
Mobile	\$35,000	\$35,967	

Source: Water Comprehensive Plan Committee

The United State Department of Housing and Urban Development (HUD) has established guidelines for computing general income guidelines for determining housing affordability. The income levels that are a primary concern with respect to affordability are moderate, low, and very low. These are 120%, 80%, and 50% of median household income respectively. In 1989, the median household income in Waterford was \$28,500. As shown in the table below, a household that earned no more than \$13,500 would be considered as a very low income household.

**Moderate, Low-Income, and Very Low-Income Households  
As a Proportion of Total Households  
Waterford, 1989**

Household Income Level	Income Amount	Approximate Percentage of Total Households
Moderate	\$32,200	20%
Low	\$22,800	20%
Very Low	\$14,200	24%

Source: U.S. Census, 1990

Income figures for the years since the 1990 Census are not available for Waterford. However, the table below lists 1994 figures which have been generated for Oxford County by the Department of Housing and Urban Development (HUD). Also shown are the low-income (80% of median) and very low-income (50% of median) threshold figures for Oxford County, amounts that constitute "affordability" for home purchase, monthly mortgage payment, and monthly rent for each of the three income categories.

**Affordable Housing Rents and Prices  
Oxford County  
1994**

Median Annual Family Income	Household Income Group	Annual Income Range	% of Total Households	Affordable Monthly Rent	Affordable Selling Price
\$29,600	Very Low Income	Up to \$14,800	31%	Up to \$280	Up to \$36,000
	Low Income	\$14,800 - \$23,680	18%	Up to \$510	Up to \$65,600
	Moderate Income	\$23,680 - \$44,400	33%	Up to \$1,000	Up to \$128,400

Source: U.S. Department of Housing and Urban Development

Based upon income information and generally accepted affordable housing rents and sale prices of houses, affordable housing opportunities in Waterford are an issue for very low and low income households. Given the low rental vacancy rate for rental units and rental costs, limited options are available for those individuals and families with incomes of less than \$25,000.

**Projected Housing Needs**

Projected housing needs for very low, low and moderate family income groups to the year 2008 have been developed. The population is projected to increase by 364 people by the year 2008 in Waterford. Using an average of 2.5 people per household, 146 new housing units are projected for the next decade. Using the percentages for each family income group for 1990, it has been estimated 33 new homes will be needed for the very low income group, 21 homes for the low income group, and 41 homes for those with moderate incomes.

**Projected Housing Need by Income Group  
1998-2008**

Projected Population Increase	364 People
Projected Number of New Housing Units	146 Units
(2.5 persons / household)	
very low income ( 22.8%)	33 units
low income (14.4%)	21 units
moderate income (28.2%)	41 units
above moderate (34.6%)	51 units

Source: Waterford Comprehensive Plan Committee



# HISTORIC, CULTURAL AND ARCHAEOLOGICAL RESOURCES

## Historical Resources

Waterford and the surrounding area contain a wealth of historical buildings and sites. The majority of the structures in the Flat are on the National Register of Historic Places. In addition, the homes of 19<sup>th</sup> Century comic writer and lecturer Artemus Ward (Charles Farrar Brown) and Cyrus Hamlin, a noted religious figure, are still prominent in the village. South Waterford was the home of Mary Moody Emerson. She took the beauties and the peace of the area as inspiration to develop the concept of Transcendentalism through her nephew, Ralph Waldo Emerson. Some of the country's first hydropathic cures were performed at what is now the Lake House and currently known as one of the top 20 rated inns in the country. Both Congregational churches are listed in the National Register as is the home of Waterford's founder, David McWain.

In South Waterford, there are remnants of a few of the mills that brought Waterford its early success. There are two bicentennial farms still in operation. Elm Vale cemetery contains the remains of many of the Town founders and historic figures. Another noted historic site is the Elm Vale Cemetery where many of the Town's founders and historic figures rest.

The Waterford Historical Society has published two books to aid in the telling of the Town's story (History of Waterford Maine 1775-1875; and 1875-1975).

In Randall H. Bennett's book, Oxford County, Maine A Guide to Its Historic Architecture, he states that "The town of Waterford contains some of the county's finest late eighteenth to mid nineteenth century architecture including important transitional and vernacular structures." These structures are an important component of the town's character.

## Cultural Resources

The Waterford Library, located in the Flat, is open Monday, Wednesday and Saturday on a year round basis. In addition to lending books, the library presents story hours and activities for children. An adult book discussion group meets monthly. The more precious historical town documents are stored there. A microfilm reader is available for use in studying older town records. The Sheena Fraser Garden Book Collection and extensive offerings by Maine authors are also available at the library. Larger libraries are available to the east in the communities of South Paris, Norway, and Bridgton.

Waterford residents can avail themselves of the Oxford County Bluegrass Festival at the Oxford County Fairgrounds, the Sebago/Long Lake Chamber Concerts sponsored by the Sebago/Long Lake Chamber Music Association presented at Bridgton Academy, and the Saco River Festival. Other music related activities can be enjoyed at the Deertrees Theater, Celebration Barn Theater and dances at the fairgrounds.

The Mary Gage Rice Museum located on Routes 35/37 contains a fine collection of 18<sup>th</sup> and 19<sup>th</sup> century farm and household artifacts. The old Town Hall has been restored to its 1840's look and is available for visiting by the general public and for town students to have mock town meetings. The museum at North Waterford contains local memorabilia and archives. All three sites are maintained by the Waterford Historical Society.

There are two churches in the Town that tend to the religious needs of the community. The First Congregational Church is located in the historic area of Waterford Flat Village and North Waterford Congregational Church which is located on the North Waterford common. Both churches meet every Sunday and on other religious holidays. Both perform various religious functions that are funded by donations, trusts, and interest bearing accounts. The churches contribute to a food pantry that benefit members of the county.

The Waterford Masons meet monthly at their hall in the Flat.

Waterford Grange #179 represents the agricultural activities of the local community and assists in the national lobby. The Grange convenes every 2<sup>nd</sup> Monday at the North Waterford Grange Hall. The Grange is funded by dues and fund raisers.

The Women's Fellowship meets twice monthly to make crafts which are sold to raise money for the needs of the children in the community.

Other civic organizations include the Waterford P.T.A., the Recreation Commission which sponsors swimming and athletic events and the Wilkins Community House.

The Western Foothills Land Trust (WFLT) accepts lands, easements and buildings for the purpose of preserving and protecting the natural, scenic, open space and historic values in Western Maine. Landowners may transfer development rights to Land Trusts to hold and monitor, usually in perpetuity. The landowner retains desired customary uses such as continued management, access, scenic enjoyment, recreation, forestry, etc. Landowner may qualify for tax advantages including passing property to heirs without burdensome inheritance taxes that might otherwise force sales (PO Box 107, Norway, ME 04281).

### **Archaeological Resources**

Archaeological resources are physical remains of the past, most commonly buried in the ground or very difficult to see on the surface. Archaeological sites are defined as prehistoric or historic. Prehistoric sites are those areas where remains are found that were deposited thousands of years before written records began in the United States. These sites are the only source of information about prehistory. More recent archaeological or historic sites are those sites which occurred after written records began.

In Maine, archaeological sites are most commonly found within 25 yards of an existing or former shoreline. These areas provided good locations for boat access and camp locations. Although some 4,500 archaeological sites have been identified in Maine, there may be an additional 12,000 sites to be discovered.

The Maine Historic Preservation Commission reports that prehistoric historic archaeological resources are most commonly located adjacent to canoe-navigable water including lakes and rivers. The Crooked River and the shores of Waterford's lakes and ponds are likely sites of prehistoric historic archaeological resources. The Maine Historic Preservation Commission recommends future field work focus on sites relating to the first wave of Anglo-American settlement beginning in the 1770s.



## **LOCAL ECONOMY**

### **Introduction**

The following presents an overview of the economic characteristics that affect Waterford. An examination of Waterford's past and present economic base will help determine future needs and identify potential problem areas.

### **Economic History**

The Waterford area was first settled in the mid 1770s by David McWain, a young soldier from Massachusetts, who settled his land grant for service in the war with the French. Many more settlers rapidly came to the area bringing about the first grist and saw mills for the rapidly expanding farming and lumbering community. By the 1820s, a stage and trade route had developed leading from the farming communities of northern New Hampshire and Vermont to the harbors of Portland and Saco. Waterford, as one of the principal stop-off points on the route, prospered with stores and storage buildings. By 1830, the Cumberland and Oxford Canal was constructed to bring agricultural goods from western Maine and northern New Hampshire and Vermont to the ports along the southern Maine coast. Waterford served as one of the key economic centers of the mid 1800s for the region due mainly to its access to rapid transportation outlets which brought about many stores and mills. However, the backbone of the Waterford economy was still agriculture due to the fine upland pastures and meadows. When the industrial revolution spread to Maine in the early 1840s, however, gradual changes began to take place. Many of the younger men began to be drawn away to the manufacturing jobs in towns like Rumford and Lewiston-Auburn. The height of the Waterford economic region probably occurred in the mid 1850s, but the evolution of railroads, which never came through Waterford, and the powerful drain of young vital men to the Union Army in the Civil War slowly caused the population in the Town of Waterford to slip back to around the 1,000 mark where it remained ever since. As the canals and small mills slipped away, the Town retained its earlier agricultural base of apples, trees, and simple farm goods. Later, in the early 20s, many boys and girls camps began to spring up around the many lakes. Waterford's proximity to the White Mountains began to make the area a prime recreation destination, and Waterford has prospered from these associations ever since. Many of the property taxes now collected in the Town of Waterford are from non-resident sources and are vital elements of the local economy. These seasonal boosts to the local economy have helped to keep the mainly agricultural economy of the Waterford area stable.

### **Regional Economic Perspective**

The Town of Waterford is located within the Sebago Lakes Region Labor Market Area (LMA). The largest community in the Sebago Lakes LMA is Bridgton. The majority of residents depend on this area for jobs and essential goods and services. As shown in the following table, of the 6,760 employed in the LMA, 1,890 were employed in services. Many of these service jobs are seasonal in nature including hotels/motels and camps. The second largest number of people were employed in manufacturing, 1,690 and 14% specifically in lumber and wood products. This is due mainly to the proximity of timber harvesting operations.

**Sebago Lakes Region Labor Market Area  
Non-Farm Wage and Salary Employment  
1998**

<b>Occupation Field</b>	<b>1998 Totals</b>	<b>% of Total</b>
Manufacturing	1,690	25%
Construction	420	6%
Transportation and Public Utilities	190	3%
Wholesale Trade	150	2%
Retail Trade	1,150	17%
Finance, Insurance, and Real Estate	180	3%
Services and Mining	1,890	28%
Government	1,020	15%
<b>Total</b>	<b>6,760</b>	

Source: Maine Department of Labor

**Waterford's Economy**

Waterford's local economy is based on service type business that serve both year-round seasonal residents. Natural resource based business include Pike Industries, Ricker Orchards, and wood products. A number of campgrounds and boy and girl summer camps add much to the local economy.

The type of employment of those that live in Waterford shifted between 1980 and 1990. The largest changes were increases in sales/administrative support and service.

**Employment by Occupation**

	<b>Persons</b>		<b>Waterford %</b>	
	<b>1980</b>	<b>1990</b>	<b>1980</b>	<b>1990</b>
Professional/Mgr.	78	133	18.2	21.9
Technical	11	9	2.6	1.5
Sales/Admin. Support	75	135	17.5	22.2
Service	39	85	9.1	14.0
Crafts/Precision Prod.	79	82	18.5	13.5
Operators/Labor/Trans.	93	143	21.7	23.5
Farm/Forestry/Fish	53	21	12.4	3.5
	<b>428</b>	<b>608</b>		

Source: US Census

According to the Maine Department of Labor in 1998, Waterford had an annual average labor force of 680 people. The Town had an annual average unemployment rate of 6% which was somewhat higher than the overall Sebago Lakes Region Labor Market Area.

The above information makes clear what is readily perceivable: that Waterford is primarily a rural residential community. However, it is interesting to note that local businesses are very important to local employment as well as a significant portion of the Town's tax revenue.



## PUBLIC FACILITIES AND SERVICES

### Introduction

An examination of Waterford's public facilities and services and their current day capacities is an important element of the comprehensive plan. In addition, the future demands on the Town's public services and facilities must be assessed and their adequacy to meet such demands determined. Increases in population and housing will place additional demands on current facilities and services.

### Road System

There are approximately 63 miles of public roads in the Town of Waterford. These include some 22 miles of state highways and 41 miles of local roads. The three major arteries through the Waterford area are State Routes 35, 37 and 118.

Routes 35 and 37 run north through Waterford from the Portland area. In the Town, Routes 35 and 37 split; Route 35 going in a northwest direction toward North Waterford, and Route 37 going in a northeasterly direction toward East Waterford and then on to Norway. Both Routes 35 and 37 intersect with Route 118 which is in an east-west orientation beginning in Norway and ending in North Waterford. Route 35 meets Route 118 in North Waterford, and Route 37 meets Route 118 in East Waterford. Together, the three highways form a triangle cradling the Waterford community while providing access to all neighboring communities and nearby recreational attractions.

#### Town of Waterford State Owned Road Inventory

Road Name	Length (Miles)	Condition
Route 35	8.5	Fair
Route 37	6.5	Fair
Route 118	6.9	Good
Sweden Road		Fair
<b>Total Miles</b>	<b>21.9</b>	

In addition to the well-maintained State Routes, there are 35 roads in the Waterford area that provide access to the surrounding area and are maintained by the own. Some of the more notable roads include the following: Plummer Hill Road, Waterford Road, Bisbeetown Road, and Baker Hill Road. Local road conditions range from good to poor. Several sections of public roads are closed to winter maintenance. These include portions of the Bisbee Town Road, Five Kezar Road, Rice Road and Ben Hale Road. Should development take place on these portions major expense would result for their upgrading.

**Town of Waterford  
Town Owned – Road Inventory**

<b>Road Name</b>	<b>Length</b>	<b>Condition</b>	<b>Composition</b>
Baker Hill Road	1.25	Good	Paved
Bear Pond Road	2.10	Good	Paved/Gravel
Ben Hale Road	2.10	Fair/Poor	Paved/Gravel
Beyer (Ray) Road	1.10	Poor	Gravel
Bisbee Town Road	3.10	Fair	Bit
Brown Hill Road	0.50	Fair	Bit/Gravel
Chadbourne Road	1.80	Fair	Bit/Gravel
Cheever Road	0.20+	Fair	Gravel
Deer Hill Road		Poor	Paved/Gravel
Fisk Road	0.70	Fair/Poor	Bit/Gravel
Five Kezar Ponds	3.10	Good/Poor	Paved/Gravel
Grover Road	0.70	Good/Poor	Paved/Gravel
Horton	0.10	Good	Paved/Gravel
Howe Hill Road		Fair	Paved
Hunts Corner Road	2.35	Good	Paved
Irving Green Road	6.90	Good/Poor	Paved/Gravel
Johnson Road	1.80	Fair	Paved
Kilgore Road	0.70	Fair/Poor	Paved/Gravel
Lewis Pike Road	0.40+	Fair	Gravel
McIntire Road	1.50	Good	Bit
McWain Hill Road	2.75	Good	Paved
Millett Road	0.40+	Fair	Paved
Morse Road			Paved
(Apple Blossom Lane)		Fair	
Passaconaway Road	3.00	Good	Paved
Plummer Hill Road	2.20	Good/Fair	Paved/Gravel
Rice Hill Road	1.50	Good/Fair	Bit/Gravel

Road Name	Length	Condition	Composition
(McKinney Hill Road)			
(Rice Road)			
Sawin Hill Road	0.80	Good	Bit
Sodom Road	0.75	Good	Gravel
Staples Road	0.30	Fair	Gravel
S. Waterford Road 1	0.20	Fair	Paved
(Buttermilk Street)			
(Cross Road)			
S. Waterford Road 2	0.10		Paved
(Mill Street)			
S. Waterford Road 3	0.10		Paved
Sweden Road	2.40	Good	Paved
Temple Hill Road		Good	Paved
TOTAL MILES	41.10		

In the Waterford area, there are also 39 private roads that access the surrounding community, campgrounds, lakes and other attractions. For the most part, these roads do not conform to acceptable standards. Future development served by these roads and year-round use require careful consideration.

### **Road Maintenance**

All of the public roads in the Town of Waterford are maintained by the Town of Waterford. The Town also shares in a joint effort with the DOT in the maintenance of Routes 35, 37, and 118.

All salt and sand are stored at the Town Garage site on Route 35/37 in South Waterford. The sand shed was built in the early 1990s and 2,300 yards. For future consideration, it would be helpful to have a shed in the vicinity of the Waterford Fish and Game and the McIntire Road.

The privately owned roads in the region are all maintained by their individual owners except for the Keoka Dam Access Road and the Staples Road which are maintained by both the Town of Waterford and private individuals.

### **Public Safety**

Waterford does not maintain its own police force. Instead, police protection is provided by the Oxford County Sheriff's Department and the Maine State Police. Additionally, the Town of Waterford selects a constable each year to perform limited police duties within the Town like posting articles for Town Warrants. The Board of Selectmen also perform limited enforcement activities by recommending fines within the Town.

Police services are provided by the Oxford County Sheriff's Department which allocates one Sheriff to the region. The average response time of the Sheriff's Department is approximately within 12-17 minutes of the call. The Maine State Police also service the area on an "on-call" basis usually responding to the area in around 20 minutes and providing adequate coverage.

The Town of Waterford dissolved the three associations into one Municipal Fire Department in 1993. All of the fire equipment is town owned. The fire stations in Waterford Flat and in South Waterford were returned to the prior owners. The North Waterford Fire Station was kept by the town and is used by the Snowmobile Club and Recreation Committee. The 80 x 80 Municipal Complex was built and was moved into 1996. The new complex consists of a 42 x 80 fire apparatus bay, training room, dispatch office, chief's office, meeting room, selectmen's office, map room, and Town Office. The fire department consists of a roster of approximately thirty members who are paid on a per-fire basis.

The water supply for fire suppression is obtained from several local lakes, ponds, and streams. There are only six "dry hydrants" in Waterford to serve the entire community. Additionally, portable pumps are utilized to access water supplies when necessary. At times, access to the water supplies has been difficult because of weather conditions and inadequately maintained private roads and rights of ways to lake and ponds.

The Town of Waterford has an educational "Learn Not to Burn Program" in the local school. Waterford has mutual aid agreements with Stoneham, Lovell, Harrison, Bridgton and Sweden. Other communities that could provide mutual aid are Casco, Naples, Sebago, Denmark, and Brownfield. These mutual aid agreements have worked extremely well for the Town, and there are no plans to end mutual aid with any community.

**Fire Fighting Equipment  
Town of Waterford**

331	1981 Ford 4X4	1,000-gallon	500 gpm
332	1994 GMC	1,300-gallon	750 gpm
334	1968 Ford	750-gallon	750 gpm
335	1974 Ford	750-gallon	750 gpm
336	1967 Chevy Squad Truck		
337	1962 Dodge 4X4 Forestry Truck		

The 1962 Forestry truck's chassis is owned by the State and the body and pump is owned by the Town. The Fire Department also has:

- 30 Pages (Radio Control Alert System)
- 5 Portable Radios
- 1) 500 gpm pump
- 2) 250 gpm pump
- 14 Air Packs
- 1) 2,500 Watt Generator

The Town of Waterford also had a 17,000 watt generator installed in 1999 that has the capacity to run the entire building if it should need to be a shelter. The apparatus bay also houses one of the Stoneham Rescue Service ambulances.

**Schools**

The Town of Waterford is a member of MSAD 17 (Oxford Hills School District). MSAD includes the communities of Waterford, Harrison, Hebron, Norway, Otisfield, Oxford, Paris and West Paris. School board members are elected from each Town, based on percentage of population, at their respective Town Meetings for three-year terms.

Parents are involved in the Town of Waterford's school activities in a number of ways. In day care activities, the parents of many Waterford children assist with a parent's support group that is active in planning programs, newsletters, field trips, and educational opportunities. In higher grade levels, parents assist by joining various volunteer programs that assist the children directly at the schools. Parents also assist by helping plan plays, field



trips, and various holiday functions. Parents in the area are also involved in P.T.O. functions such as fund raising, book fairs, and issues of community concern. At the Junior High level, parents are involved in the Parent's Advisory Council which advises the school on activities, policies, and teaching methods.

School facilities in the Waterford area are also available for community use. Some of the organizations that utilize these facilities include 4-H, the Waterford Appeals Board, and the Council of Churches.

Residents of the Town of Waterford have access to the Waterford Memorial Elementary School which serves grades K-6. Built in 1949, this school has approximately 122 students enrolled and is part of MSAD 17. The school's facilities include a multi-purpose basement that serves as a lunch/gym room, a supply room, and a makeshift stage. According to the principal, Anthony Waldeir, a separate gym, new carpets, and energy efficient windows would enhance the educational environment of the school.

The number of students from Waterford enrolled in MSAD 17 increased by 50 or 24% between 1990 and 1998.

**1990-1998 Student Enrollment in MSAD 17  
Town of Waterford**

<b>Grade</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>
<b>K</b>	17	30	21	14	13	15	21	26	23
<b>1</b>	20	21	29	21	14	17	14	18	26
<b>2</b>	10	15	20	30	19	16	18	17	19
<b>3</b>	20	12	14	20	31	20	15	17	21
<b>4</b>	21	18	11	14	18	28	19	14	18
<b>5</b>	14	20	21	14	12	17	28	21	13
<b>6</b>	18	15	18	16	15	18	19	31	23
<b>7</b>	13	17	19	16	20	19	17	18	30
<b>8</b>	20	15	16	19	17	21	18	16	17
<b>9</b>	10	21	18	19	19	18	23	15	18
<b>10</b>	12	8	22	21	17	18	15	23	17
<b>11</b>	18	11	9	17	20	15	15	12	22
<b>12</b>	14	17	11	11	17	18	13	15	13
<b>Total</b>	211	226	230	223	236	240	238	248	261

**Health and Human Services**

There are no hospitals or clinics in Town, therefore, the residents must rely on services from neighboring communities. Hospitals used by Town residents include Stephen's Memorial Hospital, Northern Cumberland Memorial Hospital, and other larger facilities in the cities of Lewiston and Portland.

Special health care services are provided to senior citizens in the Waterford area by Androscoggin Home Health Services in Norway. Nursing homes and elderly day care facilities are also available. These include the Market Square Health Care Center in Paris and the Bridgton Health Care Center. Counseling is available to Waterford area

residents for Drug Dependency, Alzheimer’s Disease and for other medical needs from Stephen’s Memorial Hospital in Norway and Tri-County Health Services in Paris.

**Public Works**

The Town of Waterford maintains a Public Works Department staffed by three full-time employees. The responsibilities of the Public Works Department entail the maintenance of Town roads and their bridges, the winter plowing of Routes 35 and 37, and the maintenance of the Town beach parking area and the Town office parking area. Equipment used by the Public Works Department is stored at the Town Garage and Storage Shed. The building and shed are currently in good condition.

**Public Works Department  
Equipment Listing, 2000  
Town of Waterford**

<b>Equipment</b>	<b>Age</b>	<b>Year Acquired</b>	<b>Cost</b>	<b>Condition</b>
Grader	26 years	1990	\$20,000	fair
Bulldozer	26 years	1976	—	fair
Loader (backhoe)	new	1990		good
Loader		1995	—	good
Dumptruck		1996	—	good
Dumptruck	3 years	1987	—	fair
Dumptruck		2000	—	new
Sweeper	8 years	1982	—	fair
York Rake	3 years	1987	\$2,000	good

Source: Town of Waterford Road Commissioner

The Road Commissioner is developing a program to update equipment in a orderly manner so that needs can be anticipated and planned for. Concerns of the Public Works Department include inadequate record of ownership and maintenance responsibilities for some roads.

**Town Government**

The Town of Waterford operates by a charter authority under a Selectmen/Town Meeting form of government. An annual Town Meeting is held the first Saturday of March during which three Selectmen are elected. The Selectmen act as Assessors and Overseers of the Poor. The Tax Collector of the Town of Waterford serves an appointed one-year term and also includes the duties of Town Clerk, Treasurer, and Excise Tax Collector.

The Town of Waterford Planning Board is appointed to a five-year term by the Board of Selectmen. The duties of the Planning Board include the review and approval of subdivisions and applications for site plan review approval. The Board of Appeals of the Town of Waterford is a five-member panel appointed by the Town Selectmen to five-year terms. The duties of the Board are to convene when an appeal is requested and to act on the request.

The Board of Assessors and Overseers of the Poor are the Board of Selectmen. The Board of Assessors’ duties are to assess Town properties and record its value for the allocation of taxes to meet the appropriations made and voted

upon at the March Town Meeting.

### **Municipal Complex**

The 80 x 80 Municipal Complex was built and was moved into 1996. The new complex consists of a 42 x 80 fire apparatus bay, training room, dispatch office, chief's office, meeting room, selectmen's office, map room, and Town Office. The Municipal Complex has adequate space for the planning period. The former Town Hall located on Route 35/37 at the southern end of Waterford Flat now belongs to the Historic Society.

### **Public Lands**

The Town of Waterford owns 14 parcels of land. Following are the locations, size, descriptions and assessed values of these parcels.

1. Tax Map 15, Lot 11 on the east side of Bear Pond. The property consists of .10 acres used as a boat landing.
2. Tax Map 25, Lot 43 on the south side of Sweden Road in South Waterford at Carding Mill Road. The .5-acre lot is used as a park and was acquired from W. & C Hamlin. 739/219 & 1235/165. The area is a playground and is valued at \$1,500.
3. Tax Map 26, Lot 4 on the east side of Route 35/37. The .4-acre lot is a picnic area bought from the State of Maine and is valued at \$2,000.
4. Tax Map 26, Lot 9 on the east side of Route 35/37. The .13-acre site is a picnic area bought from B. McDaniel. 642/591 and is valued at \$300.
5. Tax Map 26, Lot 35 on the west side of Route 35/37, the 1.27-acre parcel supports the two sheds of the Town Garage acquired from F. Willard. 292/324 and is valued at \$25,000.
6. Tax Map 28, Lot 2 on the south side of Sweden Road, the 1.3-acre parcel is an open field used as a Cemetery was bought from Elm Vale Cemetery Association. 850/49 and is valued at \$500.
7. Tax Map 34, Lot 41 on the north side of Keoka and the south side of Route 37, the 1.4-acre parcel serves as a boat ramp, acquired from Rice Wheeler in 1979. 1045/225 and is worth \$1,200.
8. Tax Map 34, Lot 70 on the east side of Route 35 and the north side of Keoka, the .25-acre lot serves as the Town Hall and a boat landing and beach and combined is assessed at \$30,000.
9. Tax Map 41, Lot 4 on the east side of Plummer Hill Road in back of S.A.D. 17 and on the west side of Valley Road. The 26-acre woodlot is assessed at \$38,100.
10. Tax Map 41, Lot 7 on the east side of Valley Road on the south side on the north side of Town Farm. The 127-acre woodlot is assessed at \$38,100.
11. Tax Map 48, Lot 9 on the east side of Valley Road and on the north side of Town Farm. The 79-acre woodlot is assessed at \$23,700.
12. Tax Map 50, Lot 4 on the east side of Route 118 south of Hunt's Corner Road. This parcel is part woodlot and baseball field and is 10 acres. Acquired via 433/389 on 2/39, future uses include a cemetery and is assessed at \$30,000.
13. Tax Map 68, Lot 6A, this is the Hershey Bridge over Crooked River at .3-acres. Acquired

888/90 on 3/76; assessed at \$3,000.

14. Tax Map 33, Lot 3 on the top of Mt. Tire'm, this 27-acre woodlot acquired 444/371 on 8/43 is not assessed. 3.6-acre assessed at \$1,300.

### **Cemeteries**

There are four cemeteries in the Waterford area, each of which are owned by the Town and are maintained by individual committees with support from the Town and investment interests. There is ample land in the Town of Waterford that has been set aside for future cemetery use as well as the space available in the existing cemeteries to accommodate the town's needs.

### **Solid Waste**

The town operates a transfer station and recycling program.

### **Effects of Growth**

Growth in Waterford in the next ten (10) years could have a significant effect on the costs of providing public facilities and services. Depending on the location of new development, large expenditures could be required to serve new growth and development.

# OUTDOOR RECREATION

## Introduction

Outdoor recreation opportunities are important to both year-round and seasonal residents. The many lakes and ponds provide for many recreation opportunities as do the woods and trails of Waterford.

## Outdoor Recreation Opportunities

The Town of Waterford and surrounding area provide many recreational opportunities for its residents and visitors. Unfortunately, the limited coverage of the Oxford County Y.M.C.A. falls short of supplying the Waterford area with adequate recreational opportunities for its citizens. Therefore, the Town of Waterford, along with the Town of Stoneham, offers a baseball program to children ages 6-15. This program is sponsored by local businesses and by citizens' donations and municipal funds. Another program that provides a recreational outlet is the Swimming Program sponsored by the Town of Waterford and the nearby community of Bridgton. This program, sponsored by the Town, provides children 3-15 with swimming lessons. Volunteers include parents and older children.

The Town of Waterford owns the land for its Babe Ruth baseball field, which is approximately 10 acres in size and is located off Route 118. There is a boat landing on Bear Pond approximately 80 feet by 90 feet in size, and there is also the Waterford Town House and Beach. Also owned by the Town is an access to Keoka Lake. However, beaches and public access to water in the Town are otherwise limited.

Traditional outdoor recreation such as hunting, fishing, skiing, boating, snowmobiling and hiking can easily be accessed in the Waterford area because of its close proximity to many local mountains, streams, lakes, and woodlands. Changing land use patterns and ownership may in the future reduce the availability of these traditional outdoor recreation activities.

One of the methods of analyzing a community's recreation facilities is to compare them to standards established by the National Recreation and Park Association. These standards are listed in the following table along with an indication of their availability in the local area.

## Recreation Facility Needs Analysis

Current outdoor recreation facilities have been assessed based on recognized facility standards. These standards should be used as a guide to currently needed facilities and anticipated facility needs based upon the forecasted year 2009 year-round population. This analysis is based on facilities owned by the town of Waterford and areas the public has been granted use currently. Based on the standards, there is a need for a nature study area and ice skating.

### Outdoor Recreation Facilities and Needs

Type of Facility	Recommended Standards	Existing Facilities	1999 Surplus/ (Deficiency)	2009 Surplus/ (Deficiency)
Neighborhood Playground	1	2	1	1
Baseball Diamond (90 ft. basepaths)	1	1	0	0
Softball/Little League Diamond*	1	1	0	0
Basketball Court*	1	1	0	0
Tennis Court*	1	0	(1)	(1)
Multi purpose Field (Football, Soccer, Field Hockey)*	1	1	0	0
Swimming Area (square feet)	1	2	1	1
Ice Skating Area* (square feet)	1	0	(1)	(10)
Picnic Table	4	5	0	0
Nature Study Area	1	0	(1)	(1)

Standards are as follows:

Minimum one **nature study area** for towns with population greater than 1,500.

\* Minimum one per Town.

# NATURAL RESOURCES

## Introduction

The natural resources base of a community plays an important role in overall community development. Natural resources can enhance or limit the growth potential of a community and are significant factors in the planning of a community's future. Various natural resources also enhance the quality of life within a community.

Waterford's lakes, rivers and hills afford a variety of quality recreation opportunities and scenic enjoyment. Waterford's extensive forest and remaining agricultural land provide a sustaining source of livelihood for local residents; they afford and provide wildlife habitat; they afford a spacious scenic setting for fishing, hunting, snowmobiling, cross country skiing, nature study and other outdoor recreation activities – cherished by residents and a drawing card for vacationers.

## Topography

Topography relates to the physical relief of an area. Often a locale may be referred to as mountainous, hilly or flat. Knowledge of the topographic characteristics of a community is important because of its influence on development, views and aesthetics.

There are two factors that are important when topography is considered: relief and slope. Relief reflects the height of the land above sea level and surrounding areas. It identifies significant or dominant physical features that form natural barriers that hinder development or valley corridors that permit easy access. Slope on the other hand measures the amount of rise and fall in feet of a given horizontal distance. It is a significant aspect of landform which presents various limitations to development and other land use activities. As slope becomes steeper, construction is more expensive, roads and services are more difficult and expensive to construct and maintain, and the potential for environmental degradation increases.

Generally speaking, Waterford can be described as having small mountains and valleys. Local relief ranges from just under 500 feet above sea level in the Crooked River region to over 1500 feet above sea level on the peak of Beech Hill (see Figure 3).

Slopes greater than 20% are scattered throughout the community. Approximately 10% of Waterford's total land has slopes greater than 20% with concentrations in the Pulpit Rock, Sterns Hill, Stanwood Mountain, Bear Mountain, Hawk Mountain, McWain Hill, and the North Waterford region.

## Wetlands

Wetlands, often underestimated and overlooked, are extremely important natural resources. They provide temporary storage of large amounts of storm water runoff helping to reduce flooding; they filter and purify the water which flows through them by physical, chemical, and biological action; they control the effects of erosion by filtering silt and organic matter; they provide surface and ground water recharge which is especially important during dry periods; they provide nesting, breeding, feeding, and resting habitats for many species of game and non-game wildlife including mammals, fish, birds, reptiles and amphibians; they offer important habitat for certain plants and insects; and for many people they offer a unique recreational opportunity. Even the slightest alteration on a wetland can seriously impact its natural function, thus adversely impacting our environment. The impact may result in additional flooding, a decrease in water quality, less ground water recharge and/or loss of fisheries and wildlife.

Boundaries of wetlands are often difficult to define precisely, therefore, the boundaries which are mapped are approximate. The delineation of wetlands in Waterford was done by Lakes Environmental Associates (LEA) in Bridgton through the combined use of soils maps supplied by the U.S. Natural Resources Conservation Service (NRCS) and National Wetlands Inventory maps, from the Maine Geological Survey (MGS) and U.S. Fish and Wildlife Service. The maps are suitable for planning purposes and indicate areas which require special attention.

## Surface Water

Lakes, ponds and rivers are one of Waterford's major assets and attractions. Yet, they are a fragile resource that require vigilance, planning and land use practices to maintain the valued quality of their waters and recreational and scenic settings.

Good water quality is a vital and valued resource of the citizens of Waterford. Increased nutrient content, particularly phosphorus, is the major cause of decreased water quality in the lakes of Maine.

Phosphorus is the key nutrient in algae growth. As algae growth increases, oxygen levels decrease, posing a very serious threat. Oxygen is necessary to sustain cold water fisheries such as trout and salmon. In biological terms, this process of a lake becoming more productive in the ability to produce and support increased levels of algae and decreased oxygen levels is known as eutrophication.

The interdependence of factors such as size and depth of lake and watershed, seasonal fluctuations, and the oxygen levels in the lake make phosphorous monitoring very difficult. Serious algae blooms can occur with very little warning. Once the damage has been done, it is a very costly and expensive process to reclaim the lake if at all possible. The end result can be a decrease in property values and loss of recreational uses as well as visual aesthetics. It is, therefore, crucial to employ sound management practices as preventative measures rather than as crisis intervention.

The Maine Department of Environmental Protection's (DEP) Priority Watersheds Program targets technical and financial assistance to help towns, lake associations and landowners develop watershed protection programs including BMP's. Watersheds currently targeted include Keoka and McWain lakes and the Crooked River.

The Maine Department of Environmental Protection (DEP) and the Lakes Environmental Association (LEA) classify lakes based on their overall health and susceptibility to algal blooms as shown in the table below. Already, seven (7) of Waterford's ten (10) lakes have been rated as Moderate/Sensitive by DEP. Another three (3) have been rated as Moderate/Stable, but none as Good or Outstanding. LEA has flagged two of the Moderate/Sensitive lakes (Keoka Lake and Island Pond) as of High Degree of Concern and another two (McWain Lake and Jewett Pond) as of Moderate/High Degree of Concern – all being near or at the threshold of algal blooms. LEA has also classified the remaining Waterford lakes as of Moderate Degree of Concern.

These ratings express concern over existing or imminent overloading with phosphorus, as well as potential development threats. The ratings call for active preventive or restoration measures in the watershed.



INSERT WETLANDS MAP



Lake Name	Water Quality Category	Direct Drainage Area (Acres in Waterford )	%	Lake Load Allocation (lbs/ppb/yr)**
Bear Pond	Moderate / Stable	5275	100	62.22
Bog Pond (Mud)	Moderate / Sensitive	284	100	3.13
Cabbage Yard Pond	Moderate / Sensitive	259	100	1.54
Crystal Lake	Moderate / Stable	862	16	19.11
Duck Pond	Moderate / Stable	308	100	2.97
Highland Lake	Moderate / Sensitive	42	1	0.63
Island Pond	Moderate / Sensitive	679*	59	6.30
Jewett Pond	Moderate / Sensitive	395*	63	3.41
Keoka Lake	Moderate / Sensitive	3644*	100	42.88
Little Moose Pond	Moderate / Stable	924	76	11.28
Long Lake	Moderate / Sensitive	1265	4	17.70
McWain Pond	Moderate / Sensitive	2406	100	31.53
Middle Pond	Moderate / Sensitive	39	19	0.39
Mud Pond	Moderate / Stable	1655	99	13.23
Papoose Pond	Moderate / Sensitive	155	100	2.20
Sebago Lake	Outstanding	13232	12	394.82
Speck Pond 1	Moderate / Sensitive	4	15	0.06
Speck Pond 2	Moderate / Sensitive	22	25	0.24
Stearns Pond	Moderate / Stable	551	13	5.40
Whitney Pond	Moderate / Sensitive	39	18	0.28

\* High Degree of Concern or Moderate/High Degree of Concern as rated by Lakes Environmental Association (LEA), 1999 data.

\*\* Lake Watershed Load Allocation represents pounds (lbs) phosphorus allocated to Waterford's share of watershed per parts per billion (ppb).

Source: Maine Department of Environmental Protection (DEP), Watershed Division, 1998 data, and Lakes Environmental Association, 1999 Lake Testing Report.

Using monitoring data, DEP has calculated the amount of additional phosphorus that would produced a 1 part per billion (1 ppb) increase in each lake's phosphorous concentration. [Cf. Table]. With this information, Waterford can set goals for each lake and allocate the remaining phosphorous loading capacity among the land uses and ownerships in a watershed. It can develop a phosphorous allocation per acre as a guide taking into account: the level of protection sought for each lake, the amount of developable land, growth assumptions and land use objectives. The

Waterford Planning and Appeals boards through Site Plan Approval or permit Application Approval can consider the impact of a potential phosphorous load from a proposed development on a lake using the phosphorous loading coefficient as a guide. Lake associations can assist in setting goals and building consensus.

Lakes are also classified by Maine Department of Inland Fisheries and Wildlife as cold (C) or warm (W) water fisheries. Cold water fish are especially sensitive to water quality.

University of Maine (UMO) studies find that water quality significantly affects property values. The studies use water clarity as an indicator of water quality. A one meter (3 feet) improvement in lake water clarity increases average property prices ranging from \$11 to \$200 per front foot. These prices aggregate to millions of dollars in higher property values. If a lake gets polluted or turns green with scum, property values can drop 5 to 10 percent. Thus, landowners and towns directly benefit when they act to protect their lakes. In fact, Maine's, and especially Waterford's, economy is dependent on maintaining high quality lakes. Each year in Maine, \$1.8 billion are spent on lake-related activities; lakes support 52,000 jobs.

Waterford's surface waters include Keoka Lake, McWain Lake, Five Kezar Ponds, Papoose Pond, Bear Pond, Little Moose Pond, Bog Pond, Duck Pond, and the northern section of Island Pond, Crooked River and a number of smaller brooks and streams. All of Waterford's lakes and rivers are located within either the Sebago Lake or Long Lake watershed, which, in turn, flows into Lake Sebago.

#### Keoka Lake

Keoka Lake is the largest lake in Waterford and has both seasonal and year round homes on its shores. Water quality is rated as High Degree of Concern due to its oxygen depletion and potential for phosphorous recycling threatening the lake's quality and cold water fishery. This lake is best suited for warm-water fish such as smallmouth bass, perch and pickerel. The Department of Inland Fisheries and Wildlife (IF&W) manages the lake for brook trout.

#### McWain Pond

McWain Pond has both seasonal and year-round homes as well as expanses of undeveloped pine-studded shoreland on both the east and west shores. The lake is best suited for pickerel and bass fishing. The lake is classified as Moderate/High Degree of Concern due to the potential for phosphorous recycling in the deep waters.

#### Bear Pond

Bear Pond is also surrounded by both seasonal and year-round homes. The water quality of the pond has been determined to be good, with total phosphorous and algae content low to moderate. Despite evidence of oxygen depletion and phosphorous recycling, in the deepest waters, this occurs in a relatively small volume. While this does not pose a present threat, this should be monitored to determine if a trend is forming. IF&W is managing the pond for small-mouth bass and perch; some cold water fish, such as salmon and brook trout, are present.

#### Little Moose Pond

Little Moose Pond, in the southwest corner of Waterford, is largely undeveloped. Owing to oxygen depletion and possible recycling, the water quality is rated as Moderate. This pond supports warm-water fish such as perch and pickerel.

INSERT WATERSHEDS MAP



### Five Kezar Ponds (Mud Pond)

Five Kezar Ponds has seasonal and year-round houses on its shoreline as well as a sawmill on the far eastern side. Water quality has been established as Moderate/Stable. The pond is capable of supporting a variety of warm-water fisheries.

### Papoose Pond

Papoose Pond, in the northeastern section of Town, is most noted for Papoose Pond Resort and Campground on the southern end of the pond. Single-family homes and seasonal camps can also be found on its shores. Water quality is classified as moderate and sensitive. Papoose is shallow and mixes readily, replenishing oxygen and reducing recycling, but phosphorous core levels are high. The pond supports a variety of warm-water fish.

### Duck Pond

Duck Pond is largely undeveloped. Water quality is Moderate/Stable. The pond is warm-water and supports a variety of warm water fish.

### Island Pond

Only the northern tip of Island Pond is in Waterford. Current land use is Camp Chickawah. Though overall water quality has been good, water clarity has become a High Degree of Concern because of the increased potential for phosphorus and bottom waters to mix.

The above lakes and ponds are those found within the boundaries of Waterford. Much of the land area in the vicinity of other municipalities is within a watershed outside of Waterford. Because waterbodies know no borders, regional management is essential to achieving good water quality. The Town should continue to cooperate with surrounding communities to achieve this goal.

### Crooked River

The Crooked River has been designated as one of Maine's Outstanding Rivers under the Maine Rivers Act. It is the prime nursery and critical to restoring the Lake Sebago Landlocked Salmon fishery. It contributes 40 percent of the flow into Lake Sebago, Greater Portland's water supply. Without effective watershed protection, involving towns, landowners and citizens, the Portland Water District will be required to invest in a \$60 million filtration system. Proactive steps are critical to prevent erosion/sedimentation, stormwater pollution, dumping and trashing and poorly-sited and designed development that would threaten this asset to Waterford. Preventive measures include Best Management Practices; maintaining tree, shrub and plant cover along the river, tributaries and wetlands; controlling stormwater runoff from roads, ditches and paved areas; proper handling of pesticides, herbicides, oils and other toxic substances.

A Crooked River Initiative represents landowners and citizens seeking to protect the water quality, recreational, fish and wildlife and scenic values of the Crooked River and its watershed. The Initiative is a loose association of landowners, businesses, anglers, canoeists and other conservation minded citizens together with the Lakes Environmental Association and the Portland Water District. The group seeks to develop respect for the river and its shoreland, promoting stewardship and preventing litter and pollution. It would like to assist interested landowners in orchestrating appropriate conservation easements to husband the Crooked River Corridor for future generations.

## **Ground Water**

Ground water is water that is derived from precipitation that infiltrates the soil, percolates downward, and fills the tiny numerous spaces in the soil and rock below the water table. In Maine, only 10 to 20 percent of an average of 42 inches of precipitation each year stays in the ground as ground water; the remainder runs off into streams or is returned to the atmosphere by evaporation. Wells draw water from permeable layers or zones in the saturated soil and rock called aquifers. Two major types of aquifers exist in Maine: sand and gravel aquifers and bedrock aquifers. Wells in sand and gravel aquifers can yield up to 2,000 gallons per minute (gpm) while wells in fractured bedrock generally yield much less often only enough for single-family residential use.

A sand and gravel aquifer is a water-bearing geologic formation consisting of ice contact, outwash, and alluvial sediments left by the melting glaciers and subsequent melt-water rivers and streams that were once part of this area of Maine (roughly 12,000 years ago). The sand and gravel deposits range from ten feet to more than one hundred feet thick.

The U.S. Geologic Survey has mapped the location of significant sand and gravel aquifers located on the northern and southern ends of Bear Pond, the greater Crooked River region, and the area surrounding Five Kezar Ponds. The sand and gravel aquifer at the southern end of Bear Pond is the same aquifer that the Harrison Water District draws its water.

Most of the private individual wells in Maine are drilled into bedrock. The wells penetrate through water-bearing cracks, or fractures, in the bedrock. These water bearing fractures are bedrock aquifers. Most of the domestic wells penetrate relatively small fractures and, therefore, produce only small amounts of water. However, there are some areas where the volumes of water are adequate to provide for municipal water supplies.

## **Floodplains**

A floodplain is the flat expanse of land along a river or shoreline that is covered by water during a flood. Under the Federal Flood Insurance Program, the 100-year floodplain is called the flood hazard area or special flood hazard area. During a flood, water depths in the floodplain may range from less than a foot in some areas to over ten feet in others. However, regardless of the depth of flooding, all areas of the floodplain are subject to the requirements of the Flood Insurance Program. Floodplains along rivers usually consist of a floodway, where water flows, and a flood fringe where stationary water backs up. The floodway will usually include the channel of a river or stream as well as some of the land adjacent to its banks.

## **Wildlife Habitat**

Wildlife should be considered as much a natural resource of the Town as are surface waters or forest land. Wildlife species are a product of the land and, thus, are directly dependent on the land base for habitat. Wildlife habitat is constantly changing through natural succession, and in today's world, wildlife is increasingly being affected by

humans. As local and regional conditions and land use practices change, the wildlife of an area can also be expected to change for all wildlife requires adequate habitat to sustain their populations. If a habitat does not exist, or an existing habitat is lost, various types of species will not occur. Through thoughtful land use planning, adequate habitat and, in particular, areas of critical concern can be managed to maintain wildlife as a viable resource.



Insert AQUIFERS map



Although there are many types of habitat important to our numerous species, there are four which are critical. They are:

- a. wetlands
- b. riparian areas (shorelands of lands, ponds, rivers and streams) and major watercourses
- c. deer wintering areas
- d. other unique and/or critical habitats (including special conditions needed for certain species)

The Maine Department of Inland Fisheries and Wildlife has mapped ten deer wintering areas in Waterford. Wetland areas, woodlands, and farmlands provide valuable wildlife habitats. Due to their limited nature, and their importance to wildlife, any loss of these areas will have an immediate negative impact.

Unique Natural Areas

The Maine Department of Conservation, Natural Areas Division compiled data on Maine’s rare, endangered, or otherwise significant plant and animal species and plant communities. While this information is available for preparation and review of environmental assessments, it is not a substitute for on-site surveys. The quantity and quality of data collected by the Natural Areas Division are dependent on the research and observations of many individuals and organizations. In most cases, information on these natural features is not the result of comprehensive field surveys.

Rare or exemplary botanical features located in Waterford, according to the Natural Areas Division are identified below.

**Rare or Exemplary Botanical Features**

Scientific Name	Common Name	ME Status
Carex backii	Black Sedge	E
Castanea dentata	American Chestnut	SC
Ceanothus americanus	New Jersey Tea	T
Fimbristylis autumnalis	Dwarf Bulrush	T
Isotria verticillata	Large Whorled Pegonia	PE
Outwash Plain Pondshore	Outwash Plain Pondshore	
Subularia aquatica	Water Awlwort	SC
Utricularia resupinata	Small Purple Bladderwort	E
Woodsia obtusa	Blunt-Lobed Woodsia	T
R - Rare S - Secure E - Endangered	SC - Special Concern C - Critical T - Threatened	E - Extirpated PE - Possibly Extirpated U - Unknown

## Scenic Resources

Waterford is endowed with a number of scenic areas and views. The Town's topography with several high ridges and hills provide for several panoramic views. Scenic view locations include the following.

**Mt. Tire'm** - Squire Brown Trail, overlooks of lakes and mountains protected by gift;

**Hawk Mt.** - Presidential Range - views overlooking Long & Sebago Lakes and Pleasant Mt., in Town ownership by gift from subscribers;

**Bear Mt.** - cliff views of lakes and mountains;

**McWain Hill Rd.** - views across farmsteads of Mahoosuc Range over lakes and foothills, height - land protected by donated conservation easements;

**McIntire Hill** -

**Pulpit Rock** - overlooking Crooked River Valley;

**Blackguard Rd./Beech Hill** -

**Little Moose Pond** -

**Working farms** - e.g., Pleasant View, Rice and Hersey Farms, off Rt. 35, N. Waterford, views of Mt. Washington and Mahoosuc Range; Millett Farm, Pride Farm, McWain Hill, Millett Farm, Deer Hill;

**Orchard Vistas** - Plummer Hill Rd.;

**Kezar Falls** -

**N. Waterford Congregational Church** - with spire, "common" and mountain backdrop;

**Waterford Flat Village Scene** - with Waterford Congregational Church, Lake House, and Town House;

**Lake Keoka and Bear Pond** - roadside overlooks, Rts. 35 & 37

**Lake Keoka** - cove with beach, Rt. 37, donated to Town;

**Mill Hill Rd.** - Charming vistas of Waterford Flat/Lake Keoka/Mt. Tire'm, as well as Mt. Chocarua; further along a Mt. Washington vista;

**Crooked River** - Roadside Picnic Area, Rt. 118

**McDaniel's Rips, Crooked River off Baker Hill Rd.** - rapids, fishing, canoeing and school salmon put-in;

**Baker Bog** - Island Pond Stream, off Baker Hill Rd.

**Mutiny Brook** - Outlet to McWain Pond on Route 37; Rice Hill facing south.

## Effects of Growth

If not properly planned and sited, new growth in the Community could result in adverse effects to the natural environment. Inappropriate and poorly planned development in lake watersheds could result in a degradation of water quality. Poorly planned development along ridgelines could effect the scenic character of the area.

# LAND USE & DEVELOPMENT PATTERNS

## Introduction

A major element of a comprehensive plan is the analysis for the use of land and existing development patterns. Through such an analysis, insights into community functions, spatial relationships, past and current priorities and future directions are possible. Current land use patterns and expected future development trends are cornerstones in the development of policies and strategies which will shape Waterford's future land utilization characteristics. Because Waterford's numerous lakes provide a retreat to many summer residents, a significant use of land in the community is seasonal dwellings.

Waterford has a total land area of approximately 47 square miles or 30,000 acres and ranks 11<sup>th</sup> in land area of all communities in Oxford County. As with many Maine towns, Waterford first developed as an agricultural community. Lumbering was also important to the local economy. After 1850, large corn canneries and apple producing businesses were found in Waterford. Perhaps the most important factor in current day land use patterns was the lakes and ponds and scenic qualities that brought tourists to Waterford on their way to the White Mountains. These qualities today attract both summer residents and new year-round residents.

## Forest Land

Forest or woods lands cover the majority of land area in Waterford. In 1977, it was estimated that there were 26,000 acres of forest land in Waterford. Development patterns since 1977 have not changed the amount of forest land significantly. In 1997, there were 10,500 acres of land in Tree Growth. The most significant threat to commercial forest land in Waterford is the creation of small land parcels that are not suited to commercial forestry.

## Agricultural Land

Waterford was founded as an agricultural community. While today's agriculture does not play a significant role in the town's economy, it is still an important use of land. There are working farms and orchards in Waterford.

## Village Land Use

Waterford has four compact village centers: North Waterford, Waterford Flat, South Waterford and East Waterford, each with its own distinct character. Most residents would describe a location according to one of these village centers.

North Waterford consists of a mix of commercial establishments, single-family homes, mobile homes and some public buildings. Development is concentrated around the intersection of Route 118 and other local roads. Outside of the village center, development is scattered. The Crooked River flows through North Waterford.

Waterford Flat is centered around the north shore of Keoka Lake. The land uses in this village center are similar to those found in North Waterford, commercial mixed with residential. A greater number of public buildings can be found in Waterford Flat than in North Waterford. Waterford Flat Village is an area of local historic significance as the majority of the structures within the Village have been placed on the National Register of Historic Places.

South Waterford is located between Keoka Lake and Bear Pond. The land use mix continues to follow the previously mentioned patterns. South Waterford is sandwiched between Stanwood Mountain and Bear Mountain.

East Waterford is by far the smallest village center. The land use in this village is primarily single-family residential. The development is centered around Route 37 and a north-south running local road.

## Residential Land Use

The results of the 1999 land use survey show that there were 934 residential dwelling units in the Town of Waterford. Included in this number are 541 year-round homes and 393 seasonal homes or camps. Waterford's residential land use and development can be separated into several categories. These include the more compact

village areas, recent low density subdivisions, scattered residential development and seasonal residential which is generally located around the lakes and rivers.

Low density subdivision development (lots in excess of 80,000s square feet and 250 feet of road frontage) has occurred in several sections of Town. Currently, many subdivisions have been approved and lots are up for sale. As a general rule, the new approved subdivisions are found on existing roads. Because a number of roads are closed to winter maintenance, new subdivisions served by these roads would require expenditures to upgrade and plow these roads. In a few instances, new roads have been built to access the subdivision. Many of these new subdivisions are located in the watershed of a lake and care should be taken during and after construction so as not to further threaten the water quality.

The most prevalent residential development pattern in Waterford is scattered residential adjacent to existing town roads. Although much of this development has been through land subdivisions, they have utilized existing road frontage eliminating the need for new road construction. This residential development pattern leaves the impression of substantial amounts of residential growth because it is spread out along most roads rather than severed by new roads or concentrated in only a few locations.

Seasonal residential land use is concentrated around the many lakes of Waterford. The lakes most highly developed are Bear Pond, Keoka Lake, McWain Pond, Papoose Pond and Five Kezar Ponds. Many of the seasonal camps were constructed prior to the enactment of the Shoreland Zoning Law. Many of the lots do not meet current square footage and frontage requirements, as required by this law and Town ordinances. High densities of developments surrounding lakes, if not carefully planned, can lead to degradation of water quality. The major culprits are antiquated septic systems which are leaching, road dust, lawn fertilizers and pesticides and shoreline erosion due to devegetation.

### **Commercial Land Use**

The commercial land use follows the same patterns as found in the various village centers. Commercial use is generally confined to these areas, however, there are scattered commercial uses throughout the Town as some residents operate small businesses in their homes.

### **Industrial/Manufacturing Land Use**

Waterford's industries are primarily forest and natural resource related. These are sawmills, a dowel mill, Pike Industries and Sanborn's Machine Shop. Most of the industrial activity is located along the northern corridor of the Town. Additionally, the Portland Pipe Line Company and Central Maine Power Company have major transmission facilities crossing Waterford.

### **Development/Land Use Trends**

Over the last 20 years, Waterford has experienced considerable land use changes. Housing, both year-round and seasonal, account for the most significant shift in land use patterns. The impact of this development has been primarily on forested areas along existing town roads and the many lake fronts. Development has been scattered throughout the area of the community accessible by public and private roads. Housing growth between 1995 and 1998 is shown in the table below.

**New Housing Development  
1995 - 1998**

	<b>Mobile Homes</b>	<b>Single Family</b>	<b>Multi-Family Condo</b>	<b>Total</b>
1995	4	5	–	9
1996	5	7	–	12
1997	4	9	–	13
1998	4	12	–	16

If the population continues to grow at its current rate, the demand for housing will also be increasing. Along with an increase in population and housing will come the demand for increased public services which in many cases involves a need for land.

Currently, there are some approved but undeveloped subdivisions surrounding the lakes. Many of the newer home owners are demanding lake front year-round homes. The site plan review process, on a local level, is an excellent tool used by the Town to guide development and protect the fragile water quality status found in some of the lakes. Should an algae bloom occur in one of the lakes, aside from the aesthetic and recreational value, property values may severely decline.

While not a current pattern of development in Waterford, cluster developments have been found to utilize the land with the lowest environmental impact if designed properly. The concept of cluster development suggests using the same acreage as would be used for scatter development lot size, however, the houses would be located closer together which leaves a greater area of open space than traditional subdivisions. This open space can then be used by the residents for recreational, agricultural or forestry purposes. Generally, restrictions regarding land use are established for development. This pattern of development has proven to be very successful in other parts of the country, and Waterford may want to consider incentives to promote this type of development in response to protection of lake watersheds and other natural resources.

Commercial/business growth is expected to continue as the population increases. If past trends are followed, the growth will occur outside the village centers with scattered commercial development scattered throughout the Town.

Industrial development is limited to forest related products such as sawmills. Due to the rural nature of Waterford and the general lack of infrastructure such as public water and sewer, no major increases in the industrial sector are expected over the ten years forecasted in the Plan.

**Comprehensive Plan and Land Use Ordinances**

The Town adopted its last comprehensive plan in 1992. That plan contained a number of town goals, policies and strategies. In addition, it recommended the development of a Unified Development Ordinance to implement land use recommendations. While the Ordinance was developed it was not adopted. Since the time of adoption of the 1992 comprehensive plan, minimal activities have been undertaken to implement its recommendations.

The Town has adopted a site plan review ordinance, subdivision ordinance and shoreland zoning ordinance.





# FISCAL CAPACITY

## Introduction

A community's fiscal capacity refers to its ability to meet current and future financial needs through public expenditures. As Waterford develops over the next ten years, demands to maintain and/or improve various municipal services, facilities and equipment will be placed upon its fiscal capacity. Demands may include improved roads, public facilities, and equipment. The comprehensive plan will make various recommendations requiring public investment. These recommendations must be considered in light of Waterford's fiscal capacity or its ability to finance such improvements.

## Financial Indicators

Waterford appears to be in strong fiscal condition as shown by several financial indicators. The closing cash balance at the end of each fiscal year has remained stable with the largest closing cash balance in 1998 with \$484,761. This strong cash reserve provides important operating capital for the Town and a strong financial cushion for the community.

### Comparison of Closing Cash Balance and Annual Budget

<u>Year</u>	<u>Budget</u>	<u>Closing Cash Balance</u>	<u>% Cash to Budget</u>
1989	967,574	349,588	36
1994	1,220,731	320,420	26
1995	1,426,201	389,235	27
1996	1,537,975	330,254	21
1997	1,536,640	325,848	21
1998	1,677,286	484,761	29

Source: Town of Waterford

Another good financial indicator for Waterford is a relatively strong and stable non-property tax revenue base. This includes excise taxes, revenue sharing, highway block grants and interest income. Non-property tax revenues have remained fairly stable as a percentage of total non-property tax revenue increased by \$117,000 from 1989 through 1998 or 43%.

### Non-property Tax Revenues

	<b>1989</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
Excise Taxes	\$116,421	\$122,279	\$140,101	\$156,372
State Revenue Sharing	\$45,525	\$42,005	\$43,028	\$50,581
Highway Block Grant	\$33,371	\$69,780	\$69,780	\$69,780
Interest Income	\$10,072	\$11,247	\$6,176	\$19,542
Departmental Receipts	\$67,448	\$52,856	\$66,309	\$67,502
<b>Totals</b>	<b>\$272,837</b>	<b>\$298,167</b>	<b>\$325,394</b>	<b>\$363,777</b>

	1997	1998	% Change 89-98
Excise Taxes	\$162,112	\$168,578	+45
State Revenue Sharing	\$65,420	\$74,167	+63
Highway Block Grant	\$69,780	\$68,892	+106
Interest Income	\$21,057	\$24,311	+141
Departmental Receipts	\$73,335	\$66,990	(-1)
<b>Total</b>	<b>\$391,704</b>	<b>\$389,955</b>	<b>+43</b>

## Revenue

The largest source of revenue for the town is from property taxes. There is a healthy mix of resident and commercial property for a small rural community. Sixty percent of the valuation and property taxes assessed in 1989 were from residents of Waterford. By 1998, the mix had shifted to 51% of the property taxes paid by residents and 49% by non residents. Commercial and nonresidential property represent an important revenue source for the Town and helps to broaden the property tax base for the community.

### Valuation/Tax Analysis '89/'98

Valuation	'89	'98
Resident	45,969,520 (60%)	52,625,774 (53%)*
Non-Resident	30,278,922 (40%)	46,118,138 (47%)
	76,248,442 (100%) (+29%)	98,743,912 (100%)
<b>Taxes Assessed</b>		
Resident	418,322 (60%)	608,732 (51%)**
Non-Resident	275,533 (40%)	584,861 (49%)
	693,855 (100%) (+72%)	1,193,593 (100%)
<b>Valuation</b>		
Residential	64,845,915 (85%)	84,426,907 (86%)
Commercial	11,402,527 (15%)	14,317,005 (14%)
	76,248,442 (100%) (+29%)	98,743,912 (100%)
<b>Commercial Tax Assessed</b>		
Resident	78,043 (75%)	58,700 (33%)
Non-Resident	25,720 (25%)	120,262 (67%)
	103,763 (100%) (+72%)	178,962 (100%)
*Excludes Homestead Exemptions for Residents		
** Included Homestead Exemptions for Residents		

Source: Town of Waterford

## Valuation

Valuations have increased by approximately 1% per year over since 1989. This rate of increase has been less than the rate of inflation. While the tax rate remained stable from 1996 to 1998, a continuation of the slow rate of increase in valuation could result in higher tax rates.

### Valuations 1989-1998

Year	Valuation	Change	% Change	% Rate	Tax Assessed	Change	% Change
89	76,007,447			0.0091	691,669		
94	94,834,022	+3,765,315 <sup>1</sup>	+5.00 <sup>1</sup>	0.0098 <sup>1</sup>	900,311 <sup>1</sup>	+41,728 <sup>1</sup>	+6.0 <sup>1</sup>
95	95,775,839	+941,817	+1.00	0.0011	1,036,966	+136,655	+15.2
96	96,617,684	+841,845	+0.09	0.0125	1,207,721	+170,755	+16.5
97	97,663,343	+1,045,659	+1.10	0.0125	1,220,792	+13,071	+1.1
98	98,394,912	+731,569	+0.07	0.0125	1,192,525	(-28,267)	(2.3)

Source: Town of Waterford

## Expenditures

Total municipal expenditures increased by approximately \$346,000 or 24% in the five-year period between 1994 and 1998. The largest expenditure item was for education that in 1998 accounted for 41% of the town's total expenditures. Other major expenditure items are for general government, public works and health and sanitation.

### Expenses Sensitive to Growth 1994-1998

	1994	1995	1996	1997	1998	% Change
Health/Sanitation	96,078	94,854	101,009	119,210	106,234	+11
Highway/Bridges	227,347	265,426	264,530	256,703	302,578	+33
Emergency Services	51,539	55,082	63,957	60,937	53,072	+3
Insurance	41,763	57,738	62,056	54,196	74,551	+79
MSAD #17	603,795	689,356	766,355	755,818	740,796	+23
	1,020,522	1,162,456	1,257,907	1,255,864	1,277,231	+25
Total Expenses	1,470,913	1,466,755	1,572,419	1,595,751	1,817,344	+24
% Total: Sens. Exp.	69	79	80	79	70	

Source: Town of Waterford

## **Municipal Debt**

As of the end of fiscal year 1998, the town of Waterford had no outstanding long-term debt. The amount of debt allowed a municipality is governed by state law; the law limits a town's outstanding debt to 15 percent of the town's last full state valuation. This limit is reduced to 7.5 percent if the debt for schools, sewer, water and special-district purposes are excluded. Based upon Waterford's state valuation, the maximum debt under state law, including debt associated with special districts, would be approximately \$14 million. However, such a debt would increase the tax rate significantly. Nevertheless, should the town need to borrow for public improvements, Waterford has significant borrowing power.

## **Fiscal Capacity**

A community's fiscal capacity is based upon the ability to pay normal municipal operating costs, including education, public works, public safety and finance major capital expenditures compared with the ability of the tax base and other revenue sources to support such expenditures. In considering Waterford's capacity to fund normal municipal services and capital projects two areas are important. First, in recent years annual increases in valuation have been below the rate of inflation. A rate of the increase in valuation greater than the rate of inflation would allow new expenditures to be implemented without a mil rate increase. Waterford does, however, have significant borrowing power based on the maximums established in state law. Future borrowing for capital expenditures should be based upon projected valuation increases and their impacts upon individual taxpayers.