

# WATERVILLE TOWN PLAN 2014 – 2019



*Waterville village with the Town Hall to the right. Photo courtesy of the Waterville Preservation Board.*

**Prepared by the Waterville Planning Board**

**Adopted by the Waterville Selectboard on May 27, 2014**

**Regionally approved by the Lamoille County Planning Commission on \_\_\_\_\_**

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## Introduction

### INTRODUCTION

#### **A Message from the Waterville Planning Board**

On May 8, 2003 the Waterville Select Board appointed eight members to reconstitute the Waterville Planning Board. The Select Board charged the Planning Board with the responsibility of preparing a Town Plan for Waterville as a revision and update of the Town Plan originally written in 1989. Waterville benefits by having a Town Plan in order to establish a vision for our community and to be eligible for other federal and state grant funds that allow us the opportunity to meet our goals.

We have worked closely with the Lamoille County Planning Commission in the development of the Town Plan and submission of Municipal Planning Grants since that time.

2003 - We reconstituted the Waterville Planning Board and adopted a new Waterville Town Plan on September 23, 2003.

2004 - We were awarded \$1,500 in funding through the Vermont Municipal Planning Grant Program efforts to inventory and document the integrity of our public historic structures.

2004 to 2008 - We have supported the development of the Waterville Historic Preservation Board as required in the guidelines for Waterville being a Certified Local Government.

2005 – We were awarded \$1,000 from Downs, Rachlin and Martin to create a Historical Photographic Record of the Waterville Town Hall and Village Center. Photographs are archived on CD and on display at the Town Office.

2005 - We were awarded \$4,000 in funding through the Vermont Municipal Planning Grant Program to explore and obtain Village Center Designation and Certified Local Government certification.

- ✓ January 2006 - we were approved with Village Center Designation.
- ✓ April 2006 - we were granted Certified Local Government status.

2006 - We were awarded \$3,200 in funding from the Vermont Municipal Planning Grant Program and \$4,800.00 in matching funds from VT Historic Preservation grants to work with the Preservation Board to prepare a National Register Nomination application for the Waterville Historic District. In September 2007 the application was approved by the National Park Service.

2007 - We were awarded a \$5,800 grant through the FY'08 Vermont Municipal Planning Grant program. We worked with the Lamoille County Planning Commission to update the Waterville Town Plan, which was adopted by the Selectboard in May 2009.

2008 – We were awarded \$4,995 from the Department of Public Service, Clean Energy Development Fund, to support a small scale hydro assessment project. The goal is to generate electricity from the Kelly River (North Branch of the Lamoille) to meet local needs either by lower energy costs through renewable energy or sold to generate income to help offset property taxes.

## Introduction

Waterville has a rich history of community engagement and mobilizing efforts that allow us to enjoy, promote and improve our community. The members of the Waterville Planning Board are pleased to be able to make our contributions to our community, the latest of this is this revised 2014 *Town Plan for Waterville*.

### **How is a Town Plan useful to the people of Waterville?**

There are many ways in which a town plan can be used - from simply a source of information to a foundation for regulations. Ultimately, the residents of Waterville determine the uses of the Waterville Town Plan. Among the potential uses of the municipal plan are the following:

1. A source of information: The plan is a valuable source of information for local boards, commissions, citizens and businesses. The information in a plan could serve to familiarize residents, potential residents, and development interests with Waterville and its resources.
2. A basis for community programs and decision-making: The plan is a guide for the recommendations contained in a capital budget and program, for any proposed community development program, and for the direction and content of local initiatives such as economic development, recreation planning and housing.
3. A source for planning studies: Few plans can address every issue in sufficient detail. Town Plans not only record and discuss what is known about the resources and residents of the town but also what is not known. Therefore, many plans will recommend further studies to develop courses of actions on a specific need.
4. A standard for review at the state and regional levels: Act 250 and other state regulatory processes identify the municipal plan as a standard for review of applications. Municipal plans are important to the development of regional plans and regional and inter-municipal programs. In addition, state proposals must comply with town plans including the purchase of state land for parks and recreation.
5. A long-term guide: The plan is a long-term guide by which to measure and evaluate public and private proposals that affect the physical, social, and economic environment of the community.
6. An eligibility requirement and/or positive factor for state and federal grants: In 2000, the state began requiring towns to adopt plans in order for communities to be eligible for most grants and low interest loans. Planning grants, water and wastewater grants, community development grants, and other key sources of funding all now require the municipality to have an adopted plan. While many other public and private funding sources do not require town plans in order to be eligible, having a town plan that documents the need for funding will generally strengthen the application.
7. A basis for regulatory action: The plan serves as a foundation and guide for the creation or amendment of the zoning regulations, subdivision regulations, the official map, shoreland bylaws, flood hazard bylaws and for the decisions made under these regulations.

### **What is required in a town plan?**

Vermont municipalities are authorized to create municipal development plans under 24 V.S.A. §4381. All local plans in Vermont, regardless of whether they are for rural or urban municipalities, must include the following eleven elements:

1. A statement of objectives, policies, and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment;

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2. A land use plan and map;
3. A transportation plan and map;
4. A utility and public facility plan and map;
5. A statement of the municipality's policies for the preservation of rare and irreplaceable natural areas, and scenic and historic resources;
6. An education facilities plan and map;
7. A recommended program for implementing the plan's objectives;
8. A statement of how the plan relates to adjacent municipalities' plans and the regional plan;
9. An energy plan, including policies and programs to implement those policies; and
10. A housing element, including a recommended program for addressing low and moderate-income persons' needs as identified in the regional plan.
11. An economic development element that describes present economic conditions and the location, type, and scale of desired economic development, and identifies policies, projects, and programs necessary to foster economic growth.

Additionally, plans must strive to attain thirteen statewide planning goals, including: ensuring public participation during the planning process, planning development to maintain historic settlement patterns of compact village centers surrounded by rural countryside, and ensuring the availability of child care.

These represent the minimum requirements of 24 V.S.A. Chapter 117, the Vermont Municipal and Regional Planning and Development Act, which governs local land use planning and regulation in Vermont. Each town plan will be different depending on the unique qualities that exist in every community.

### **How was the Town Plan developed?**

This plan is the result of a revision of the 2003 *Town Plan for Waterville*, which was readopted in 2008 in order to give more time for full revisions. During the development of the 2014 plan, all Waterville Planning Board meetings were open to the public. Public participation was sought from citizens, Waterville Elementary School officials, the Waterville Selectboard, the Emergency Management Director, the Waterville Librarian, and other regional organizations. Finally, the Planning Board held a public hearing, as required by State statute, before submitting the plan to the Waterville Selectboard for consideration and adoption.

### **Statement of Waterville's Planning Objectives and Goals**

The objectives of the Waterville Town Plan are stated below. See Chapter 11 for a timeline and implementation schedule to achieve specific recommendations as related to these objectives.

Keep Waterville rural and preserve the personal, community, and natural qualities of life in our small town.

Encourage preservation of Waterville's natural resources and scenic beauty, including water resources, open land, mountaintops and ridges, forest and agricultural land, trails and views.

**Introduction**

Seek to continually improve the quality of education in Waterville to prepare its citizens for lifelong learning.

Encourage preservation of the historic bridges and buildings owned by the Town of Waterville.

Promote the preservation of private structures and sites through the Historic District and the Designated Village Center programs as well as the National Register of Historic Places.

Encourage housing and transportation that allows the people of Waterville, especially young people and seniors, to remain in the community.

Encourage citizens to be informed and engaged in the Waterville community.

Coordinate local planning with neighboring towns and others with whom we share resources.

Research the future economic development of Waterville in ways that draw on the resources and work skills of the town.

Respect and protect the rights of the property owners, voters and residents of Waterville.

Ensure that Waterville is a wonderful place in which to live, visit, and recreate.

Maintain and enhance Waterville's access to current technologies and opportunities.

## Chapter 1. Welcome to Waterville

### A Brief Waterville Town History<sup>1</sup>

The Town of Waterville is located in a small, low-lying valley between steep hills and mountains, and is situated in the northwestern part of Lamoille County (latitude 44° 33' north, longitude 76° 46' west). It is bounded by Bakersfield on the north and west, Cambridge on the south, Belvidere and Johnson on the east and Fletcher and Cambridge on the west. Most of the 15.44 square miles (9,882 acres) that make up Waterville drain into the Kelley River (also referred to as the North Branch of the Lamoille River).

Waterville was chartered as Coit's Gore on October 26, 1788 to James Whitlaw, James Savage and William Coit. In 1795, there were seven families in the Gore. Early settlers squatted on Native American lands, eventually building houses on the hills, leaving the Kelley River and its valley to the Native Americans. The Town of Waterville was chartered on November 16, 1824 and held its first town meeting the same year. The village is not incorporated.

Initial settlement of the Town of Waterville was scattered throughout the region without a specific focal point of development. In the 1830s, development began to cluster in the southern end of the town near the waterfalls of the North Branch of the Lamoille River. Soon a village developed at this location, and many of the early settlers (or their descendants) moved from their homes in the rural landscape to homes in the growing commercial and industrial center of the village. The name "Waterville" was most likely selected in recognition of the most important geographical feature in the region, the North Branch of the Lamoille River.

Waterville's first saw and gristmills were built in 1796-97. Although the location of these first mills is no longer known, they are significant for having been designed by the well-known surveyor, millwright, builder, architect and civil engineer John Johnson (1771-1842). These early mills may have been constructed by Barnard Carpenter and were powered by what was later known as Peck's Mill Dam.

Waterville's population reached its peak in 1850 with 753 people. During the days of Waterville prosperity (1840s-1850s), many businesses flourished. Among these were: a friction match shop; a shop which made wooden rakes, grain cradles and various wood handles; a legging and belt lace factory; a knife and blade factory; a shingle and gristmill; sawmills; a boot factory which made 500 pairs of boots a year; a flannel mill which produced approximately 374,400 yards of flannel annually and employed 51 people; a starch factory which used 5,600 bushels of potatoes to produce 44,000 pounds of starch annually; a carding mill; a tannery which used 300 calf skins, 35,000 sheep skins and 250 cords of bark annually; a sash factory which produced 50,000 window sashes per year; two cabinet shops; several blacksmiths; and two hotels. Waterville also had the Mountain Spring House, the Union House and four stores.

There were three schoolhouses, a post office, and a cemetery. Waterville had two mines, which produced soapstone, talc and asbestos. Mining was done on a small scale and in 1936 Selectmen were

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<sup>1</sup> Material largely taken from *Log Cabin Days of Coits Gore and Waterville* by Mary Wilbur Wescot, printed 1975.

instructed to sell the rights for delinquent taxes. Gold and silver veins have been discovered in Waterville, but not in sufficient quantity to mine.

Early church societies in Waterville consisted of the Methodists, Congregationalists, Baptists and Universalists. The Congregational and Methodist societies joined together in 1839 and in the same year built and dedicated the Union Meeting House. In 1870, the Universalist denomination joined with the United Church and built a meetinghouse. The Union Church building was apparently donated to the village by Moses McFarland about 1889, and converted to use as the town hall (Coit's Gore, pg. 39). One of Waterville's Baptist ministers was the Reverend William Arthur, father of Chester A. Arthur, the 21st President of the United States. In 1910, Chester A. Austin formed the Nazarene Society. The Catholic population attended church in Cambridge.

Several disastrous fires in the 1850s, combined with depressed business conditions, changed Waterville from a thriving manufacturing community to an agricultural hamlet. At the turn of the century, the population was down to 529 and by 1930 Waterville had 370 residents. In 1930, Waterville had a few businesses: a grain dealer; a lumber mill; a garage; a boat oar and canoe paddle manufacturer, four stores; and five gas pumps. It was mainly an agricultural town with farms dotting the hillsides. Waterville was known at that time for its apple trees that produced hundreds of barrels of cider. Fred McFarland ran an expert nursery where he developed a species of high bush blueberries that attracted attention from horticulturists and farmers around the state.

### **Today**

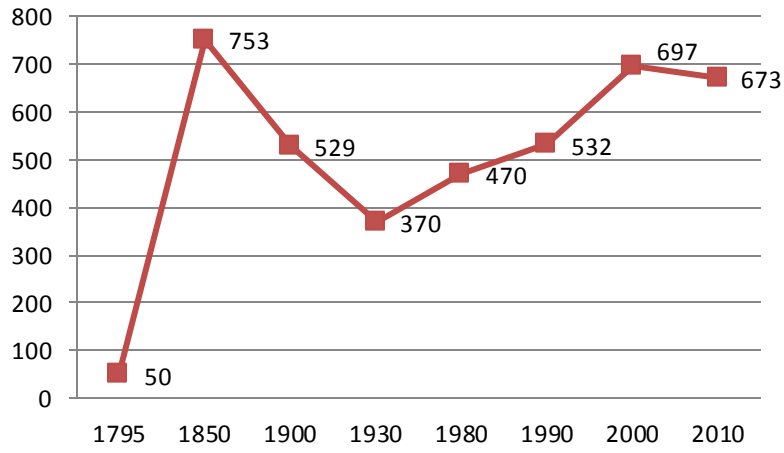
There are few businesses located in Waterville that employ local residents. The majority (83%) of the working population is employed elsewhere (more information can be found in Chapter 8). Local employment includes a village market, a garage, a hairdresser, a wild game and meat processing plant, earthmoving and building contractors, maple sugaring, forest products, farming, and various cottage industries. The village of Waterville has many fine older homes, two churches, and the Town Hall. A village green is owned and maintained by the Waterville Land Trust and has a ball field and picnic area.

By the 2000 Census, Waterville's population had grown to 697 residents - an increase of 50% in 20 years. The 2010 U.S. Census population lists Waterville's population at 673, indicating a 3.4% decrease in population from 2000. This is a contrast to Lamoille County's population which grew 5% during the same time period.

The rural character of Waterville, the nature of the homes, population shifts, and land usage are determined, to a great extent, by many external economic and social factors. We have persevered into the 21<sup>st</sup> century as a sound community thanks to the forethought of prior generations

Waterville Town Plan 2014 - 2019  
**Housing and Demographics**

Figure 1-1. Population of Waterville through 2010



Source: U.S. Census 2010

## Chapter 2. HOUSING AND DEMOGRAPHICS

### Waterville Housing Policies

Waterville encourages safe, adequate, and affordable housing for all of its citizens, regardless of age, income, gender, race, or disability through the following policies:

- Encourages residential densities on the basis of topography, soil conditions, water tables, proximity to existing roads, watercourses and commercial centers, and efficient provision of public services;
- Encourages a variety of housing types to meet the various needs of the residents of town including vacation homes, single family, multi-family, and mobile homes;
- Does not permit residential development in the 100-year flood area and encourages existing housing in the floodplain to be flood-proofed for the safety of the residents and the town as a whole, and all housing must comply with state requirements for wastewater treatment;
- Allows manufactured homes in locations similar to those generally used for single-family conventional dwellings;
- Encourages affordable housing to minimize long-term living costs through high quality design, efficient construction, energy efficiency, and proximity to employment;
- Encourages land use patterns that are inherently more affordable through cost efficiencies associated with their construction (e.g. shorter access roads, smaller lots, proximity to utilities);
  - Encourages housing that does not endanger future residents through exposure to substandard conditions, proximity to toxic substances, or proximity to high tension electric utility lines; and
  - Supports efforts to assist households and individuals with special housing needs to attain suitable housing and partnering with community-based service agencies in so doing.

### Waterville Housing Recommendations / Action Items

Waterville should work with Lamoille Housing Partnership to find ways to ensure residents have access to affordable housing, including working families and seniors.

### Population

Waterville's population reached a peak in 2000 and has since declined. The number of people in each household has also decreased. This means more housing units have been built. In 2000, Waterville had 284 housing units for 697 people. In 2010, the number of housing units increased to 319 while the population decreased to 673. The expectation, therefore, is a need for more housing units as Waterville

Waterville Town Plan 2014 - 2019  
**Housing and Demographics**

grows. There is less need for apartments although some smaller one to two bedroom units could fill the needs of many persons living alone. As would be expected from the needs stated above, nearly 83% of Waterville's occupied housing units in the 2010 Census were owner occupied while the remaining 17% were rentals. This represents a 9% increase in owner-occupied housing from 2000.

There is more to Waterville's housing picture than simple supply. The nature and cost of housing and its ability to provide opportunities for a spectrum of means and needs must also be measured. Waterville is no different from other locations in the fact that housing affordability is a major concern. Housing prices have increased slightly and apartment costs continue to climb while regional income has not kept pace. There can be seen a future need for more housing options for Waterville residents in their senior years and persons with disabilities.

### **Household and Family Characteristics**

Housing needs differ based on household types. Of the 274 households in Waterville in 2010, 195 (or 71%) were family households. The Census breaks families into three groups:

- married couples,
- female householder with no spouse present, and
- male householder with no spouse present.

Over half of all households in Waterville (59%) were married family households<sup>2</sup>, as measured by the Census Bureau in 2010. In 2000, 91% of Waterville's married couple families owned their homes, versus renting. Forty-eight percent of Waterville's married couple families had children in 2000. In 2010, that dropped to 30% of families with their own children.

The composition of single parent families has changed since 2000. In 2000, single-householder families category was split with 17 being headed by women and 19 headed by men. In 2010, 11 male householders made up 4% of all households while there were 28 female-headed householders (4% of all households). Many of these households also have children. Single-parent families also desire homeownership but generally face more challenges than two-income households.

In addition to families, the Census Bureau counts non-family households, which include individuals living alone or with one or more non-relatives. In Waterville, there are 79 non-family households of which 57 were individuals living alone. This is an increase from 2000 when there were 73 non-family households in of which 47 were individuals living alone.

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<sup>2</sup> The U.S. Census Bureau defines a "family household" as the householder plus an additional person related by birth, marriage, or adoption. This does not include same-sex couples. Same-sex couples, married or unmarried, are only considered a family household if one other person in the household is related by birth or adoption.

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Table 2-1 Households by type and number

Household	Number in Household	Percent of total
Family households (families)	195	71.2
With own children under 18 years	83	30.3
Husband-wife family	161	58.8
Male householder, no wife present	11	4.0
With own children under 18 years	9	3.3
Female householder, no husband present	23	8.4
With own children under 18 years	16	5.8
Nonfamily households (inc. same-sex households)	79	28.8
Householder living alone	57	20.8
Householder living alone - 65 years and over	16	5.9
Households with individuals under 18 years	90	32.8
Households with individuals 65 years and over	57	20.8
Total households	274	100.0

Source: U.S. Census 2010

The size of a typical Waterville family and of all households in general is shrinking. Table 2-2 depicts a decrease in the average size of families and all households between 1990 and 2010 for the town, the county and the entire state.

Important to look at is the age trend of Waterville residents. From 2000 to 2010, the overall population declined, especially in the 20 – 24 year old range. However, the number of residents ages 50 – 59 and 60 – 69 both increased.

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**Housing and Demographics**

Table 2-2. Average Size of Families and all Households, 1990-2010

Year	Waterville		Lamoille Co.		Vermont	
	Hhld	Fam.	Hhld	Fam.	Hhld	Fam.
1990	2.70	3.20	2.56	3.07	2.57	3.06
2000	2.62	2.98	2.45	2.94	2.44	2.96
2010	2.46	2.79	2.37	2.87	2.34	2.85

Sources: 1990, 2000, and 2010 Censuses of Population and Housing

Table 2-3 Waterville Population by Age Group, 2000 - 2010

Age Group	2000	2010	Percent change 2000 - 2010
Under 5 years	41	32	-21.95%
5 to 14 years	122	91	-25.41%
15 to 19 years	46	45	-2.17%
20 to 24 years	39	24	-38.46%
25 to 29 years	40	43	7.50%
30 to 39 years	109	72	-33.94%
40 to 49 years	121	115	-4.96%
50 to 59 years	83	121	45.78%
60 to 69 years	44	77	75.00%
70 to 79 years	32	27	-15.63%
80 years and over	20	26	30.00%
Total Population	697	673	-3.44%

Source: U.S. Census 2000, 2010

## Housing Stock Characteristics

### Type of Unit

According to the American Community Survey, the majority (75%) of the housing units in Waterville in 2011<sup>3</sup> were single-family homes. The second most common housing unit type in Waterville was mobile

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<sup>3</sup> During the 2010 Census, data collection was reduced. Replacing the decennial Census data is the American

Waterville Town Plan 2014 - 2019  
**Housing and Demographics**

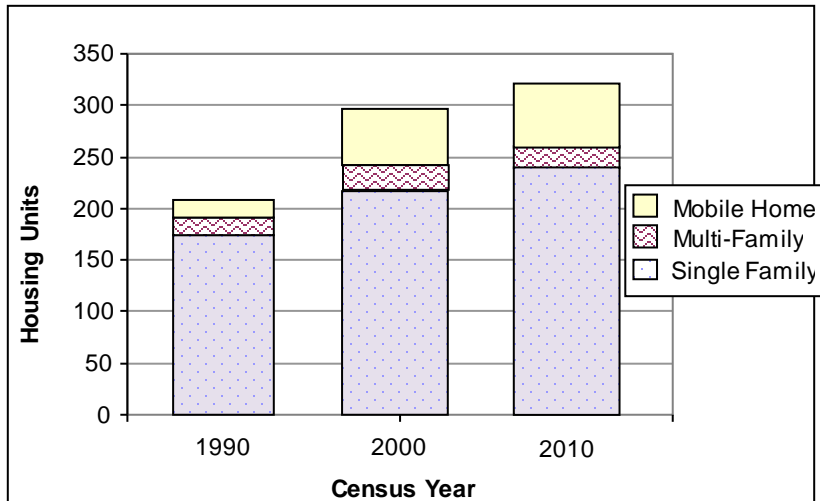
homes (21% of the total units).

The number of housing units in Waterville grew by 42% between 1990 and 2000 to a total of 299 (see figure 2-1). However, during the period from 2000 – 2010, housing units increased by 6%. This can likely be attributed in part to the housing bubble and foreclosure rate of the latter part of the decade.

**Occupancy Status**

When comparing by occupancy status, figure 2-2 shows that the number of units in ownership has increased over the past three decades. The number of vacant units decreased from 1990 to 2000 and then increased substantially in 2010. Since 2000, the number of owner-occupied housing units increased, from 79% to 83%, with a decrease in renter-occupied housing. However, rental vacancy rates are higher (5.9%) than the homeowner vacancy rate (1.3%). The occupancy rate could also be indicative of the housing bubble.

Figure 2-1. Housing Units in Waterville by Structure Type, 1990-2010



Sources: 1990 and 2000 Censuses of Population and Housing; 2010 American Community Survey

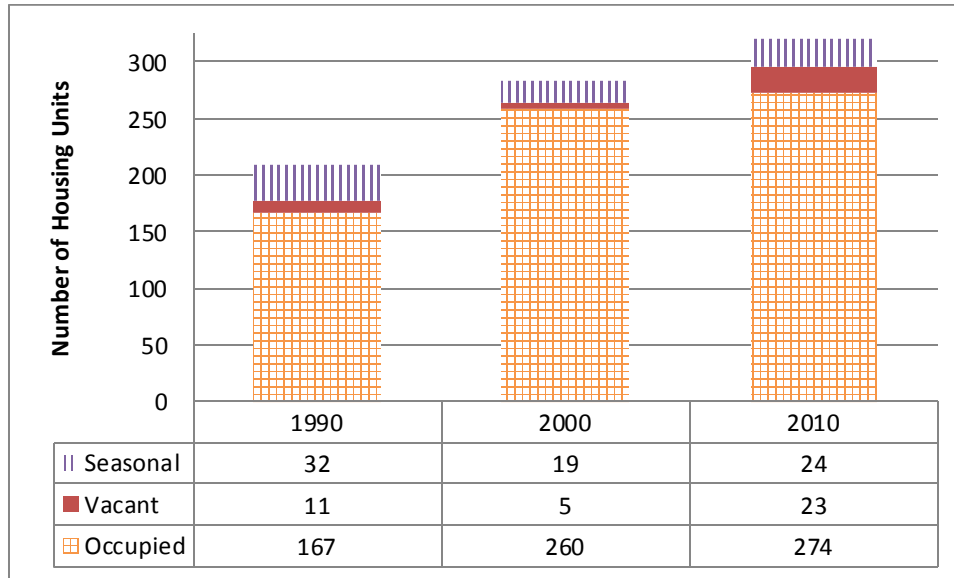
Compared with neighboring communities, Waterville has a relatively young housing stock. Over 65% of the housing units counted by the ACS in 2009 were built during or after 1960. One-third of the housing units in town were constructed prior to 1940.

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Community Survey (ACS), an estimate of population, housing, and economic characteristics. The ACS uses estimates of data over various time intervals. This plan will use both Census and ACS data from 2011.

Waterville Town Plan 2014 - 2019  
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Figure 2-2. Housing Units in Waterville by Occupancy Status, 1980-2010.



**Housing Costs**

The ACS also collects data for median housing values for homeowners and the median contract rent costs for those who rent in Waterville. Unfortunately this is still the most accurate data of this type for Waterville. The median value of owner-occupied homes in Waterville in 2009 was \$161,500, compared to \$206,100 county-wide. It is estimated that 56% of owners have a mortgage. Individuals with a mortgage spent a median of \$1,292 per month to pay the mortgage plus monthly owner costs while those without a mortgage spent a median of \$448. Renting households paid a median of \$825 per month for rent, utilities and other costs in 2009, on par with county-wide rents at \$853. This represents a significant increase in costs from 2000 to 2009; mortgage values increased 26% and rents almost doubled.

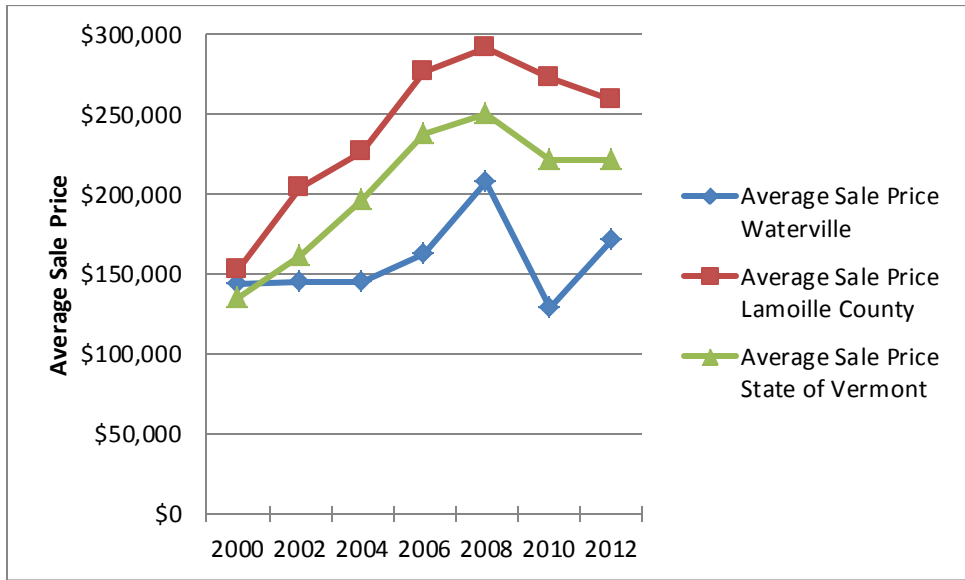
**Home Prices**

Home sales price data is kept current for Waterville and all of Vermont. The State’s property transfer data on all annual home sales is periodically analyzed and updated by the Vermont Department of Taxes. From 1988 to 2012, the number of primary residences sold in Waterville varied from a low of 1 in 1991 to a high of 13 in 2003. Most recently in 2012, three primary residences were sold, none of them were mobile homes.

Waterville’s median price has been consistently below the county and the entire state. It has also been lower than Cambridge and Morristown, the top two towns that Waterville’s resident workforce commuted to according to the 2000 Census. Recent data from the 2010 ACS listed Johnson, Morristown, and Burlington as the top commuting destinations (comprising 42% of total commuters). Towns like Morristown, Burlington, and Cambridge may attract jobs across the county, but their higher home prices may be helping to steer growth to places like Waterville. Table 2-4 illustrates the difference in prices with a snapshot of the 2007 and 2012 numbers.

Waterville Town Plan 2014 - 2019  
**Housing and Demographics**

Figure 2-3. Average Sale Prices of Primary Residences, 2000- 2012



Source: 2013, Vermont Dept. of Taxes, Property Transfer Data

Note: The small number of home sales at the town level explains the wide variability in prices seen from year to year.

Table 2-4 Median Home Prices for selected locations, 2007 and 2012

	<b>Waterville</b>	<b>Lamoille County</b>	<b>Vermont</b>	<b>Cambridge</b>	<b>Morristown</b>
<b>2007 Median Home Price</b>	\$139,750	\$198,250	\$200,000	\$215,000	\$194,750
<b>2012 Median Home Price</b>	\$171,750	\$200,000	\$199,000	\$191,000	\$192,000

Source: 2008, 2012, Vermont Dept. of Taxes, Property Transfer Data, as analyzed by Vermont Housing Finance Agency.

**The Need for Fair and Affordable Housing**

It would be ideal for all residents of Waterville to have fair and equal opportunity to secure affordable housing that meets their needs for shelter and accessibility. Common barriers to housing include low incomes, high housing costs, accessibility and self-care needs due to age and disability, and possible discrimination based on race and ethnicity, gender, familial status, and other factors.

The ability of this plan to formulate a permanent solution for fair and affordable housing in Waterville is very limited. However the land use provisions of this plan can help create opportunities for others, namely housing developers and service providers, to do their part in the development and provision of fair and affordable housing options.

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**Housing and Demographics**

**Housing Affordability**

Housing is considered affordable if a household spends less than 30% of its income on housing-associated costs. As a general rule, the lower the income, the smaller the chance that available housing will be affordable. According to the 2000 Census, 41% of Waterville households were in unaffordable housing situations; 35% of home-owning households and 56% of renting households were paying 30% or more of their household income on housing costs. Using more recent ACS data, 40% of Waterville homeowners with a mortgage are in unaffordable housing situations and 43% of renters are in unaffordable situations.

It is possible to use more current annual average wage numbers from the Vermont Department of Labor to provide some context, however. For instance, a Waterville resident making the town’s 2011 annual average wage of \$30,702, with no other income source, would have to pay no more than \$768 on monthly housing costs to stay within the 30% affordability threshold. At the county’s 2011 annual average wage of \$32,909, \$822 would be the monthly affordability limit.

A study released in March 2013 by the National Low-Income Housing Coalition reported that the average hourly wage for renters should be \$18.53 (\$38,541 annual salary) in order to afford an apartment in Vermont.

Table 2-5 attempts to determine whether or not local and regional income sources have been keeping up with increases in home sale prices. Home sale prices are a primary driver of housing costs, and increases in average wages can affect all local households, regardless of how many earners may be present. However this table does not take into account mortgage rates, utility costs, tax rates, and other non-wage income sources, including public subsidies. Nevertheless the table reveals that increases in annual average wages in Waterville and Lamoille County—where most Waterville residents work—are not keeping up with increases in local median home sale prices. This may be an indicator that the housing affordability gap has been widening.

The 2008 recession may also be a factor. Data from the Vermont Banking Division show that annual foreclosures are up 37% in Lamoille County, from 61 total in 2007 to 97 in 2012.

Table 2-5 Percent increase in median home prices and annual average wage increases

Time Period	Waterville Median Home Price Increase	Lamoille Co. Median Home Price increase	Waterville jobs – Annual Average Wage Increase	Lamoille Co. jobs – Annual Average Wage Increase
1988 – 2007	263%	164%	67%	105%
1998 – 2007	70%	74%	57%	49%
2003 – 2007	4%	36%	12%	17%
2007 – 2012	18%	1%	5%	10%

Sources: Vermont Dept. of Taxes, Property Transfer Data, as analyzed by Vermont Housing Finance Agency, 2008, and Vermont Department of Labor, Quarterly Covered Employment and Wages Report 2008.

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**Housing and Demographics**

**Special Populations Housing**

Within every community are individuals or families with special housing needs. The elderly and families with children in poverty are examples of groups with special needs that are found in most communities. Persons with disabilities may also require special arrangements.

There are many types of special arrangements. Some individuals need only special construction (such as handicapped accessibility), while others need assisted living arrangements (visiting nurses, care specialists, volunteers, family and friends) while still others require full institutional care. Churches and civic organization may also be capable of offering assistance.

Listed below are groups with special needs which are found in Waterville and an estimation of how well their needs are being met. Generalizations are made throughout this section based on age and they are not intended to be derogatory in any manner. With each generation, individuals are staying healthier longer and can live independently later in life. In general, taking care of oneself and one's home can be more difficult as one ages and/or loses a spouse, partner or supporter.

**Seniors Living Alone**

According to the 2010 Census there were 16 seniors living alone in Waterville; up from 2000. This group is important for social reasons as being retired and living alone in northern Vermont can be difficult. In many cases, opportunities to rent apartments in senior housing are desired. Waterville currently has no specified senior living.

**Seniors 70-84**

Most seniors between 70 and 84 continue to live independently. Many require some assistance, especially as they get older. There may be situations where seniors need transportation assistance or require home care. In Waterville there were 42 seniors in this age group.

**Seniors 85 and over**

Beyond age 85, seniors need more care. In the most serious cases, full institutional care is required. In 2000, there were 10 seniors in Waterville over 85. In 2010, there were 13. There are few individuals in this category, which may be due to the fact that one who requires assisted living is forced to move.

**Mobility and self-care limitations (disabilities)**

In 2000, 82 Waterville residents at 16+ years of age were identified as having at least one disability, representing 16% of the 16+ population. There are many types of disabilities, and it should be noted that 62 of those individuals reported a disability that likely affects their housing needs. Table 2-6 depicts information on Waterville residents who possessed disabilities in 2000. Depending on the severity of the limitations presented by one's disability, human services, transportation services, or special construction (handicapped accessibility) may be required.

**Families, children, and seniors in poverty<sup>4</sup>**

According to the 2011 American Community Survey estimates, 9.8% of Waterville families are living in

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<sup>4</sup> The 2000 Census compared individual and household total income levels to poverty thresholds (based on aspects of a person or family's situation) to determine the number of individuals and families in poverty in 1999. Due to changes in the Census, this is no longer calculated.

Waterville Town Plan 2014 - 2019  
**Housing and Demographics**

poverty for a total of 14% of the population living in poverty (about 94 people). This is higher than the County average, which has a families-in-poverty rate of 8.7%, and higher than the 2000 rate of 6.8%. Of those families in poverty, almost 20% have children under 18 years old. In 2000, the same data indicated 8% of families in poverty had children under 18 years old. While town data is not available, the Voices for Vermont Kids project has identified a number of areas where Lamoille County has higher statistics indicating a greater poverty need than the state. The number of children, for example, on Medicaid (called “Dr. Dynasaur” in Vermont) is about 2,600- 49% of all children under 18. The number of children receiving Free and Reduced School Meals is 1,645, a rate that is higher than the state average. One positive step is the reduction in senior citizens living in poverty. In 2000, the Census indicated 12% of individuals 65 and older were living in poverty. In 2010, the percentage of seniors 65+ in poverty was 3%, much less than the county rate of 8.4%.

Families and individuals living in poverty have specific needs that can be difficult to meet, housing included. Federal programs provide housing under “Section-8” but none are currently available in Waterville.

The data does not provide a conclusive explanation for the changing poverty rates, which may be the result of many factors, including the increased prevalence of commuting in Waterville, changes in land values, and movement of families in response to job opportunities, rent, or transportation costs. Further, the small sample size may also affect the rates reflected here.

Table 2-6 People 16+ with Disabilities and a Tally of Disabilities by Type, 2000

	Age		
	16-64	65+	Total
Total population, 2000	456	68	524
...with at least one disability	27	8	35
...with two or more types	31	16	47
Total tally of disability types reported*	104	66	170
...sensory disability	5	7	12
...physical disability	22	16	38
...mental disability	17	14	31
...self-care disability	2	13	15
...go-outside-home disability	18	16	34
...employment disability	40	n/a	40

*\*Note: The tally of disability types is not a count of people. People can have more than one type of disability. Due to issues of confidentiality, the 2010 Census suppressed disability data in small communities.*

Source: U.S. Census Bureau, 2000 Census of Population and Housing

## Chapter 3. Historic Resources

### Waterville Historic Resources Policies

Land use and development in Waterville should occur in a manner that preserves the use and condition of historic sites and structures.

### Waterville Historic Resources Recommendations / Action Items

Historic resources efforts in Waterville would include the Historic Preservation Board, the Planning Board and town residents. Some ideas include:

- Develop a strategy to renovate the old Elementary School.
- Work with private residents to enroll properties on the National Register
- Promote the benefits of the historic district and Designated Village Center for historic properties in town.
- Collect oral histories (audio recordings).
- Document one-room schoolhouses in Town.
- Develop a secure space to display historic artifacts.
- Catalog and preserve the “Mrs. Page photograph collection” and explore the significance to Waterville’s history.
- Collaborate with the Waterville Town Library and sponsor public events on Waterville’s past.

### Historic Resources in Waterville

Many of Waterville’s most recent community successes over the past several years have been efforts to document, preserve, and rehabilitate historic sites and structures in town. These places and buildings represent a window into Waterville’s past. They are also important physical and cultural resources.

Examples of historic sites and structures in Waterville include the Town Hall, the old Elementary School, the various mill-related buildings in town and the three covered bridges. The bridges, the Jaynes Covered Bridge, the Montgomery Covered Bridge, and the Village Covered Bridge, were all built in 1877 and entered in the National Register of Historic Places in 1974. Many other historic buildings in town are included in the Waterville Historic District and recorded in the National Register. Their nomination to the National Register was the first in a very busy timeline of historic preservation activities in Waterville. The Waterville Village Historic District map and list of sites can be found at the end of this chapter.

The State of Vermont Division for Historic Preservation did an inventory of historic buildings in Waterville in 1990. A detailed inventory with photographs is available in the Town Clerk’s office. Here is an excerpt from that inventory:

**Waterville Town Plan 2014 - 2019**  
**Historic Resources**

The Waterville Historic District is significant as a well-preserved 19<sup>th</sup> century mountain village. Located in a steep river valley, just below a major mill site on the North Branch of the Lamoille River, it essentially developed in a linear pattern with two T-intersection side streets. The more important of the side streets, Bridge [Church] Street, runs westerly down to the river and a covered bridge. At the head of Bridge [Church] Street are the Town Hall and an octagonal bandstand, which, because of their positioning and the openness of the intersection, give the effect of a small common. To the southwest of this main intersection is a small commercial streetscape with three commercial facades in a tight common plane. The village as a whole is characterized by evenly spaced 1.5 story wood frame, clapboard houses. Greek Revival and plain vernacular house types predominate.

The main components of the district are the commercial blocks, the Town Hall and bandstand, the United Church, the Italianate style Wilbur House, two nearly identical Classic Cottages, and the Leach-Villeneuve House. All of these are grouped around the main intersection, and all are architecturally significant and largely unaltered. Also important are the Village Covered Bridge (located on Church Street, on the National Register) and Baker House, with its axial relationship to the bridge.

In addition to the buildings in the Waterville Historic District mentioned above, there are 16 buildings listed with the State of Vermont Division for Historic Preservation as significant on a state level: Old Homestead Farm (Thomas Horse Farm); the D.C. Pierce House (Pierce-McNally House); the old Waterville Central School; Morse's Store (Manchester Apartments); Central House (Armstrong House); Bierbrier Farm; Bressel House; Nathan Page Upper Farm (Page Summer Cottage); M. Wilbur House (Ackert House); LaFountain House; Avis Bennett House; Depot House; Central House Stable (Tobin Property); A. Fletcher Farm (Hemenway House); Schofield House; and the Joel Coddington House (Leff House).

The next major developments in historic preservation in Waterville began in 2003. Waterville's latest planning efforts, including this town plan, find their root in these activities. A timeline of historic resource catalogue efforts is listed below.

**Timeline of Historic Resources Efforts in Waterville:**

1. In 2003 the Waterville Planning Board was reconstituted to draft a new Waterville Town Plan, which was adopted on September 23, 2003.
2. On May 28<sup>th</sup> 2003 the Town of Waterville voted at a special meeting to restore the foundation in the Town Hall building. Work began in July 2003.
3. In 2004 the town was awarded \$1,500 in funding through the Vermont Municipal Planning Grant Program efforts to inventory and document the integrity of public historic structures. The result is the 2005 *Town of Waterville, Vermont, Historic Resources Plan*.
4. Also in 2004, the town was awarded a \$40,000 Preservation Grant from the Preservation Trust of Vermont and the Freeman Foundation to cover a portion of the Town Hall restoration.

## Historic Resources

5. In 2005 the town was awarded \$1,000 from Downs, Rachlin, and Martin to create an Historical Photographic Record of the Waterville Town Hall and Village Center.
6. In 2005 the town was awarded \$4,000 in funding through the Vermont Municipal Planning Grant Program to explore and obtain Village Center Designation and Certified Local Government certification.
  - a. Village Center Designation was obtained in January 2006.
  - b. Certified Local Government status was achieved in April 2006.
7. In 2006, the Waterville Historical Society transitioned to become the Waterville Historic Preservation Board as required in Certified Local Government guidelines.
8. Waterville was awarded \$3,200 (40%) in funding through the Vermont Municipal Planning 2006 Grant Program and \$4,800.00 (60%) in matching funds from VT Historic Preservation grants to hire a consultant to prepare a National Register Nomination application for the Waterville Historic District.
  - a. Consultant Devin Colman was hired in November 2006, and the nomination was completed in 2007. The nomination describes an historic district with 54 buildings and structures.
9. On June 18, 2008, residents of Waterville voted to borrow up to \$150,000 to continue the Town Hall repairs. The money, to be financed for up to 10 years, was used for work on the roof, steeple and siding. Work was completed in 2009.
10. Waterville was awarded \$40,993 from the Department of Public Service and Community Development Block Grant for energy efficiency renovations to the Town Hall and Town Clerk's Office, which were completed in 2011.
11. Efforts to digitize and produce an addendum and re-printing of Mary C. Wilbur's Log Cabin Days of Coit's Gore and Waterville were completed in 2011.
12. Renovations to the Town Hall kitchen were completed in 2012, including renovated flooring and upgrades to appliances and lighting. A new stage floor, stage curtain, and curtain rod were also installed.

## The Benefits of Waterville's Historic Resources Designations

As of 2014, Waterville is one of over 100 Designated Village Centers in Vermont. More unique is Waterville's standing as one of only 14 communities in Vermont with Certified Local Government status. Both programs give Waterville access to special programs and resources for the documentation, preservation and rehabilitation of historic sites and structures in town.

**Certified Local Government (CLG)** status benefits the town in the following ways:

1. The ability to work more closely with state and federal agencies to identify and register historic structures in town, which includes nominations to the National Register of Historic Places.

2. Access to matching grants to
  - a. produce studies and cultural resource inventories,
  - b. determine property eligibility for local and National Register of Historic Places designation,
  - c. perform building reuse and feasibility studies,
  - d. develop design guidelines and conservation ordinances, and
  - e. create publications to educate the public about the benefits of Waterville's historic resources.
3. Access to technical assistance for all of the above.

It was under Waterville's CLG status that the nomination for the Waterville Historic District to the National Register was approved in 2007.

The idea behind **Village Center Designation**, through the State run Vermont Downtown Program, is that the best way to preserve historic buildings in a manner that depicts their roots is to keep them in use and maintain their relevancy in today's time. Benefits include:

1. state and federal tax credits toward the rehabilitation of historic buildings,
2. tax credits for façade improvements,
3. tax credits for code improvements, and
4. priority consideration for Municipal Planning Grant and Community Development Block Grant funds.

## **Waterville Town Hall**

Doug Porter, a private historical consultant with the Preservation Trust, did a site visit and prepared a preliminary assessment of building condition and preservation strategy for the Waterville Town Hall in November of 2000. In his report he indicated that the Waterville Town Hall was originally constructed as a Union Church about 1839. The Universalist Church was constructed seventeen years later. The mid-nineteenth century was a prosperous time for the village and by 1867 Waterville was home to two churches, two hotels, three schools, four stores, several mills and factories, and about sixty houses. The Union Church building was apparently donated to the village by Moses McFarland about 1889 and converted to use as the town hall. The bandstand on the west side of the hall was constructed about that time. The complete report by Doug Porter can be obtained at the Town Clerk's office.

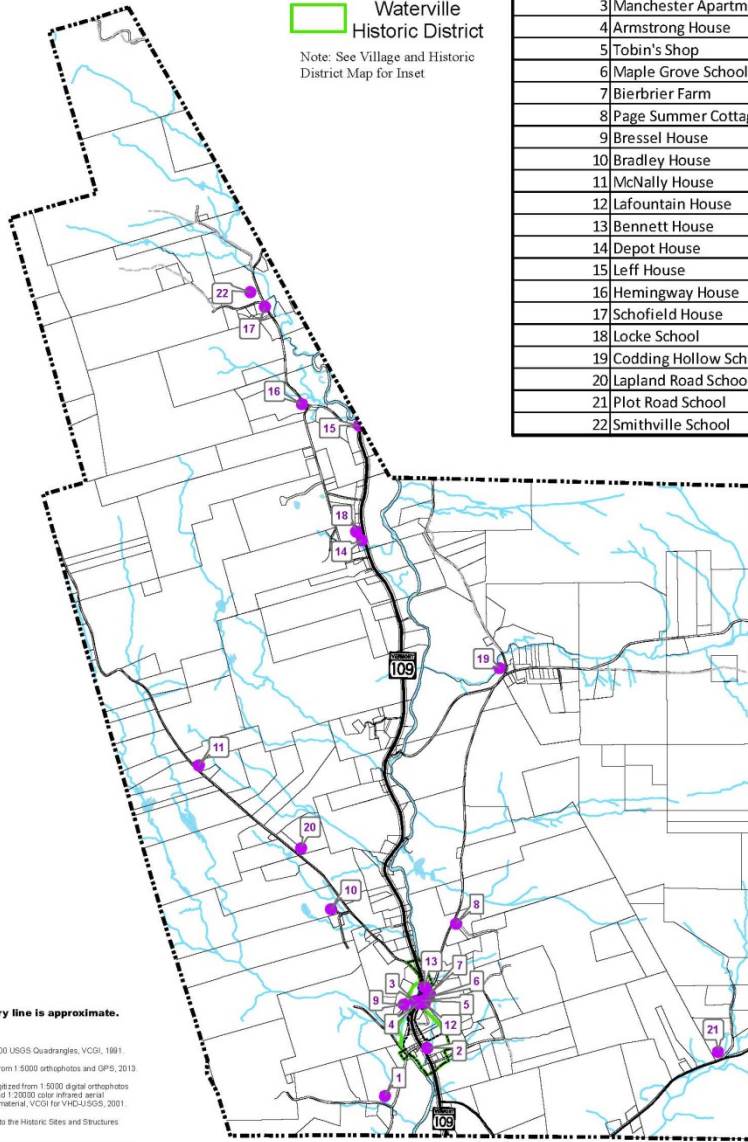
The townspeople of Waterville have made a priority of renovating the town hall. On May 28<sup>th</sup> 2003 the Town of Waterville voted at a special meeting to restore the foundation in the Town Hall building. Work began in July 2003 and efforts are underway to secure resources for a complete renovation of the building. On June 18, 2008, residents of Waterville voted to borrow up to \$150,000 to continue the Town Hall repairs. The money, to be financed for up to 10 years, was used for work on the roof, steeple and siding. The outside work was completed in 2009. In 2012, the kitchen and stage were renovated, thanks in large part to donated labor.

Waterville Town Plan 2014 - 2019  
**Historic Resources**

**Historic Sites Map**  
 Waterville, Vermont  
 Town Plan

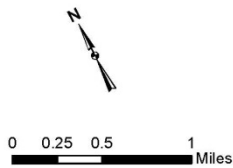
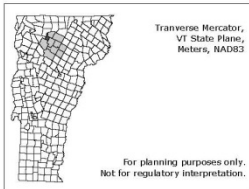
Map Number	Structure Name
1	Thomas Horse Farm
2	Waterville Historic District
3	Manchester Apartment Block
4	Armstrong House
5	Tobin's Shop
6	Maple Grove School
7	Bierbrier Farm
8	Page Summer Cottage
9	Bressel House
10	Bradley House
11	McNally House
12	Lafountain House
13	Bennett House
14	Depot House
15	Leff House
16	Hemingway House
17	Schofield House
18	Locke School
19	Codding Hollow School
20	Lapland Road School
21	Plot Road School
22	Smithville School

 Waterville Historic District  
 Note: See Village and Historic District Map for Inset



**Note: District boundary line is approximate.**

DATA SOURCES  
 POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCOI, 1991.  
 ROADS: E911 Road center lines from 1:5000 orthophotos and GPS, 2013.  
 SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 1:10' quadrangles and 1:25000 color infrared aerial photography as additional source material, VCOI for VHD-USGS, 2001.  
 HISTORIC SITES: Numbers refer to the Historic Sites and Structures Survey for Waterville, 1990.  
 PARCELS: Tax maps from Clear Russell, Russell Graphics, August 2009.

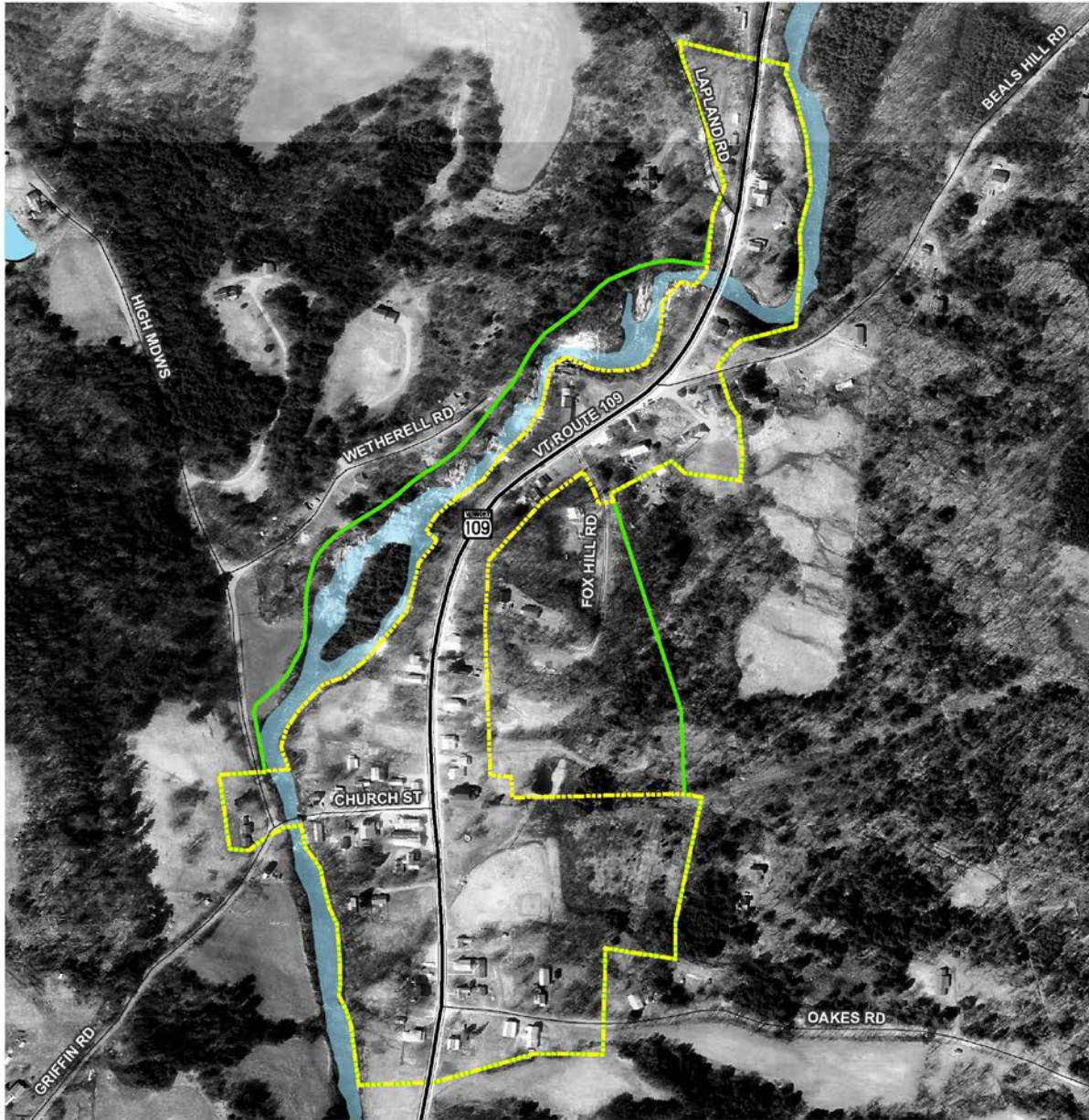


Lamoille County Planning Commission  
 PO Box 1637, 52 Portland Street  
 Morrisville, VT 05661  
 802.888.4548 f 802.888.6938  
 www.lcpcvt.org

Created by LCPC, January 2014

Waterville Town Plan 2014 - 2019  
**Historic Resources**

*Village and Historic District*  
 Waterville, VT Town Plan



Transverse Mercator,  
 VT State Plane,  
 Meters, NAD83

For planning purposes only.  
 Not for regulatory interpretation.

Created by LCPC, January 2014

**DATA SOURCES**

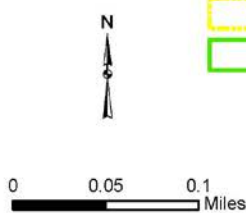
**POLITICAL BOUNDARIES:** 1:24000 USGS Quadrangles, VCGI, 1991.

**ROADS:** ES11 Road center lines from 1:5000 orthophotos and GPS, 2013.

**SURFACE WATER:** On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.

**HISTORIC DISTRICT:** Digitized from source historic district (approximate) delineated from the original application in 1980 and approved by Waterville Planning Board, 2008.

**VILLAGE CENTER DESIGNATION:** Digitized by LCPC (updated to match the State-designated Village boundary), 2008.



Village Center Designation  
 Historic District

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## Chapter 4. LOCAL SERVICES & FACILITIES

### Waterville Policies for Local Services & Facilities

Any restoration to the Town Hall and other public buildings and structures should preserve their architectural/historical character.

Waterville is supportive of 100% coverage for cell phones and high-speed Internet connection in Town. Any plan to do so should benefit the entire community financially, aesthetically, and cooperatively.

### Waterville Recommendations / Action Items for Local Services & Facilities

- The Planning Board and the Selectboard should cooperatively write and adopt a Health Ordinance for Waterville.
- The Town of Waterville should continue to pursue local funding, grants, borrowed funds, fundraising, and volunteer energy to refurbish and make Americans with Disability Act (ADA) compliant public facilities while maintaining their architectural and historical character. Renovating the old elementary school, which includes the listers' office and library, should be a priority considering its current condition.
- The Town of Waterville should continue its role in regional discussions on solutions for universal high-speed Internet and cell phone coverage in Lamoille County. Waterville residents should be given the chance to vote on joining any related financing agreements, should regional plans move forward.

## Municipal Services

As might be expected in a small community, Waterville contracts with private operators or depends on other municipalities for most services. Few services are provided directly.

### Administrative Services

The office of the Waterville Town Clerk, an elected official, provides for public records management and storage, the town treasury and tax collection, and licensing/certification services (e.g. marriage, pets, etc.). The Town Clerk's office is located in the old Waterville elementary school.

### Library

Located in the old elementary school, the Waterville Town Library reopened in June 2011 after a major renovation that included sanding and waxing of floors and painting of walls and shelves. The Town of Waterville is beginning the process to evaluate renovation needs, costs, and repair options. Estimates to renovate this side of the old elementary school are expected to be in the hundreds of thousands. Due to budget issues, the library is only open seasonally June through October and is staffed by Library trustees and volunteers. Summer hours are Tuesdays, Wednesdays, and Thursdays from 9:30AM to 2PM and

Waterville Town Plan 2014 - 2019  
**Local Services & Facilities**

Saturdays from 10AM to 2PM. Other hours are available by appointment. All open hours are subject to change due to volunteer's schedules.

Updates to the library include new shelving and new books. The library has subscribed to LibraryThing, an open access cataloging system, to create an online public access catalog of the library collection. Currently, 2077 volumes have been added to the catalog. Volunteers are still adding titles to the catalog in hopes to have an accessible record of all the library's holdings. Item types for adults include Fiction, Nonfiction, Biographies, Cookbooks, and Large Print. For children, items include Picture books, Easy readers, Chapter books, Biographies, and Nonfiction. Young Adult books are available in the YA room. The library holds a small collection of VHS video tapes. Three computer stations with high speed internet and Wi-Fi are available. Children's summer reading programs include the Champlain Read & Win program and the Lamoille County Field Days Read & Win program. The Vermont State Parks Library Pass and the Vermont State Historical Sites Pass are available for adults or families to check out. The library's online resources are available to patrons year round. These include the Listen Up! Vermont digital Audio/eBook program and the Vermont Online Library. The library maintains a website, <http://www.watervillelib.org> and a Facebook page.

As the plan update is underway, new programs are being developed. Local residents provide workshops for children, adults, and families. Volunteers are in the planning process to offer Story Hour to local daycares. Library trustees developed a library survey for residents as a beginning to the strategic planning process. The surveys were available at town meeting and currently at the town clerk's office, the post office, and the library.

The mission of the library is to become a community focal point with resources and activities for all ages and interest groups. Once refurbished, some of the future objectives and activities that the library will pursue are:

- Offering a current and relevant selection of reading materials.
- Offering Summer Story Hours for pre-school and school age children.
- Outreach to local daycares and Waterville school summer program.
- Creating a puppet stage and a lending collection of puppets.
- Offering Story Telling Workshops and/or Storyteller appearance.
- Offering Technology Workshops.
- Forming book discussion groups.
- Offering seminars & presentations by outside speakers on a variety of subjects.
- Offering space for community meetings.
- Gradually increasing its hours of operation to include evenings and year round.

Other changes, which will move the library toward Vermont Library Association (VLA) minimum standards and increased eligibility for grant funds, include:

- Developing a strategic plan and a long range plan for the Waterville Town Library;
- Assess needed current building upgrades;

Waterville Town Plan 2014 - 2019  
**Local Services & Facilities**

- Investigate grant opportunities for building improvement;
- Improve known building issues: front porch supports, ADA compliant entrance, restroom facilities and parking, leaks in plumbing in basement level, mildew in basement level, lighting for entryway and outdoors, front doors, low R factor large plate glass windows, old wiring, insulation;
- Investigate other building options;
- Investigate collaboration with town of Belvidere to provide library services for both towns;
- More visible signage, especially permanent sign with library hours; and
- Library hours to increase to a minimum of 14 hours per week year round.

**Telecommunications**

Today's expectation for telecommunications, in addition to regular telephone service, is reliable cell phone service coverage throughout town and the availability of broadband Internet connection services for any households willing to pay. Digital Subscriber Line (DSL) broadband service has become available to most households in town and cell coverage is available in most places as well. Bringing complete cell and internet coverage to all households in town is necessary for a number of economic, social, and safety reasons and involvement in projects is expected by Waterville officials. Any telecommunications proposals will be reviewed on a case by case basis.

**Public Buildings & Facilities**

**Old Waterville Elementary School**

The old elementary school now houses the Town Clerk's office, Listers' Office, and the Town Library. There have been renovations in recent years to the Town Clerk's portion of the building but the exterior remains in disrepair. State funding should be considered for window replacements, exterior renovations, and other improvements as this project is estimated to be in the hundreds of thousands of dollars. See Chapter 3 for more information.

**Town Hall**

Waterville's Town Hall is located in the center of the village's Historic District on Vermont Route 109 and is listed in the National Register of Historic Places. The building has served as a center of community activity since its construction. It continues to be used for Town Meeting in March, as well as for a variety of public meetings and social functions throughout the year.

Since about 2000, the Waterville Select Board and a dedicated group of concerned townspeople have spearheaded efforts to restore and renovate this valued structure. Such efforts have yielded significant progress. Renovations should meet current and future needs for this space.

Waterville Town Plan 2014 - 2019  
**Local Services & Facilities**

In 2003 a complete new poured concrete foundation and an upgraded heating and hot water system for the building were installed. In 2007 a new handicap accessible concrete entrance walkway, landing, and steps were added to the front of the building. In 2008 a new 24 gauge standing seam metal roof was installed on the entire building. Repair or replacement of all exterior wood siding, mouldings, components, and a complete exterior paint job were completed. At that time renovation of the historic clock works and replacement of the three clock faces and wood louvers in the clock tower were completed.

Funding for these projects has come from historic preservation grants, a private foundation grant, a voter approved municipal loan, private donations, and a great deal of local fundraising. It is the intention of all concerned that any work done to repair and restore the town hall will be accomplished by leaving the historical and architectural character of the building intact. See the section on Historic Resources in this document for a brief history of the Town Hall, and for further information.

**Town Green**

In 1989 the Waterville Land Trust bought the 7.7-acre Town Green parcel with donations. In addition to a ball field, picnic area and playground, the Town Green contains a permanent memorial for soldiers and veterans.

**Storm Drainage Facilities**

Other than the 151 culverts last inventoried in Waterville in 2013, there are no drainage or run-off management facilities in Town. The Vermont Agency of Natural Resources lists no Stormwater Impaired Watersheds or Subwatersheds in Waterville.

**Cemetery**

Waterville's cemetery is located on Lapland Road. The Cemetery Association's funding comes from interest received from various funds, sale of lots, perpetual care, dues, donations and the sponsorship of sections of fence. There are 40-50 single graves available. The Cemetery Association owns additional land on the east side of the road, but improvements would be needed before it could be used for plot space.

**Gravel Pit**

The Town bought 61 acres from the Wallace Coburn estate on Smithville Road in 1995 for \$61,000 to be used as a gravel pit. While the gravel pit is being used, the Town also buys gravel from other sources.

**Sand Pile**

The winter road sand pile is located on nine acres owned by the Town on Route 109.

### **Recreation Facilities**

Recreation facilities and organized sports are found in multiple locations in the village center. Outside the village center, recreation facilities are more informal, and opportunities for recreation can be found on public and private land.

There is a ball field and playground at the Waterville Elementary School, a basketball court at the old school/Town Clerk's Office/Library, and a ball field, picnic area and playground at the Waterville Town Green.

The Long Trail passes through Waterville and can be easily accessed in multiple locations. Year-round parking is available at a Green Mountain Club parking area at the Coddington Hollow access point. A parking area is located in Johnson, north of Route 15. Wayside pullouts are also available in Johnson on Hogback Road, just north and south of The Long Trail, and Plot Road. These are for drop-off purposes and are not recommended for overnight parking.

There are numerous informal trails in town used by cross-country skiers, snowshoers, hikers, hunters, ATVs and snowmobilers.

There are currently no bike paths in Waterville so bicyclists use the shoulders of the road. Route 109 is a common loop for bicyclists, both locals and tourists, using Routes 15, 118, and 108 to access it. Numerous mountain biking trails have been set on private and public land although there is no formalized mountain biking trail network.

The Lamoille River is a popular recreation location for water activities. Canoeing, kayaking, fishing, and swimming are all appropriate activities along the Lamoille. Boat launches in Cambridge and Johnson lead boaters to or through Waterville.

### **Street Lighting**

The village is the only area in Waterville that has street lighting. There is no known need for lighting in other areas at this time. Future lighting plans should include limits on light pollution.

### **Educational Facilities**

Generally, Waterville and Belvidere children attend Waterville Elementary School. Pre-school is available at the Belvidere School. All 7 through 12th grade students are enrolled at Lamoille Union High School in Hyde Park.

Education is addressed in more depth in Chapter 5: Education.

## **Public Safety**

### **Fire Protection**

Waterville contracts fire services from the Village of Johnson. The assessment for 2013 was \$16,666, which represents a 10% increase since 2008. This agreement may be renewed from year to year in writing by both parties stating any changes to the agreement or fees, and prior to December 31<sup>st</sup> of any year.

The town recognized the need to explore ways of slowing the acceleration of fire suppression expenses and has actively made efforts to increase the number of hydrants available in the community. Given the rural settlement pattern of residential development in Waterville and the lack of a municipal water supply, pressurized hydrants are not suitable. Dry hydrants are increasingly becoming the way to meet fire suppression coverage. A dry hydrant is essentially a 4.5 – 6 inch diameter threaded pipe capable of drawing water from a nearby pond or stream. The installation of these hydrants improves overall fire safety and also provides an added benefit to property owners in the form of lower insurance premiums.

Waterville currently has two dry hydrants located at Smithville and Rogers Roads and Wetherell and High Meadows Roads. A third was recently added over the Cambridge-Waterville boundary south of the Hogback Road on Route 109, off the state pull-out.

### **Police Protection**

Waterville contracts with the Lamoille County Sheriff's Department for 911 emergencies. In 2012 this cost was \$15,400 but in 2013 it decreased to \$14,809. The Sheriff's Department then dispatches the appropriate service (fire, ambulance, police, etc.). Police service is provided by the Vermont State Police.

### **Ambulance Services**

Ambulance services are provided by Northern Emergency Medical Services in Johnson. The 2013 town budget allocated \$15,334 for ambulance service.

### **Emergency Preparedness**

Waterville has an appointed Emergency Management Director to ensure the community is prepared for emergencies, responds effectively in an emergency, conducts recovery operations, and coordinates emergency management services. The Emergency Management Director is also a member of the Local Emergency Planning Committee.

In 2005, the Lamoille County Planning Commission prepared a regional All-Hazards Mitigation Plan, which included annexes for the ten towns in the county. Waterville adopted both the regional mitigation plan and a local hazard mitigation plan annex. The plan was updated in 2013 and is awaiting approval from the Federal Emergency Management Association.

Waterville has identified an emergency shelter at the Waterville Elementary School. The school is also the site of a Commodity Point of Distribution, to be used in the event of a catastrophic emergency to deliver supplies to residents. Funding is sought to install a generator at this location.

The Federal Emergency Management Agency (FEMA) defines a floodplain as an area of land adjacent to rivers and streams that is subject to recurring inundation. Development within floodplains can have many potentially damaging consequences, as construction may obstruct the natural flow of water or displace soil and raise base flood elevations. Waterville is among a minority of communities in Vermont that has yet to have had an official FEMA flood insurance study published and, therefore, does not have Flood Insurance Rate Maps (FIRMs) for the town. Rather, Waterville's maps are approximate Flood Hazard Boundary Maps (FHBMs), which do not differentiate between tiers of floodplain (floodway, floodway fringe, etc.). This is likely due to the limited extent of floodplain that exists in Waterville, consisting only of corridors along the Lamoille River. The Waterville Planning Board is willing to explore the possibility of adopting a flood hazard bylaw to allow the town to join the National Flood Insurance Program and enable residents to purchase federally-subsidized flood insurance.

The damage inflicted on Vermont by Tropical Storm Irene demonstrates that flooding and erosion threatens buildings and infrastructure far beyond the limits of mapped floodplains. In the coming years, Waterville may have access to mapped fluvial erosion corridors produced by Vermont Agency of Natural Resources, demonstrating potential stream movement and areas vulnerable to erosion. Whether or not Waterville elects to adopt flood hazard regulations, such maps could prove as valuable resources to current and prospective property owners as they make long-term investment decisions.

## **Other Services**

### **Electrical Utilities and Services**

Waterville is served by the Vermont Electric Cooperative in Johnson for residential and commercial electricity needs. The electrical infrastructure in town includes 3-phase power lines running along Route 109 until Coddington Hollow Road. Aside from residential solar panels and wind power turbines that could be installed by private homeowners, there is not yet any power generating facility in Waterville. Efforts are underway to develop micro-hydro electrical generation near the old Laraway Sawmill site on the Kelley River.

These issues and more are addressed in more depth in Chapter 7: *Energy Plan*.

### **Health Services**

There are no health and human services headquartered in Waterville. More information on the services available to Waterville residents is in Chapter 6: *Health & Wellness*.

### **Solid Waste Disposal**

Waterville joined the Lamoille Regional Solid Waste Management District (LRSWMD) in 1988. This

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organization was formed by the ten towns of Lamoille County together with Worcester and Craftsbury to collectively solve solid waste disposal issues and to comply with Act 78, Vermont's body of solid waste and recycling regulation. The District is a chartered municipality under Vermont law and has the authority to assess the member towns for expenses, but is currently self-supporting through the collection of tipping fees from haulers and other user fees.

In its 2006 Solid Waste Implementation Plan, LRSWMD stated that it had an annual budget of approximately \$900,000. That increased to \$1,196,300 for fiscal year 2013. Three quarters of the LRSWMD revenue is generated through operation of drop-off stations. The balance is generated through a surcharge on all waste collected and transported to a waste disposal site from the LRSWMD.

According to the LRSWMD website in 2008, towns in the district generate about 23,141 tons of waste annually. This translates into one ton per person each year. LRSWMD staff estimated in 2008 that the generation rate for landfilled waste is about 2,000 lbs per household in the region, 25% of which is construction and demolition debris. In a town like Waterville, the biggest generators of solid waste are institutions and government, accounting for about 40 percent. LRSWMD staff estimated that Waterville generates around 500 tons of mixed waste and construction and demolition debris per year (reflecting a rate of about 1,250 lbs/capita).

As required by state law, the LRSWMD has devised a plan for the management and disposal of all types of solid waste generated in its member communities. About 75% of solid waste in Waterville is picked up curbside by private haulers and the rest is brought to either the Cambridge or Johnson drop-off locations. Either way, Waterville's solid waste is hauled to the Northeast Waste Systems landfill in Coventry, VT.

Recyclables are also picked up at the curb by private haulers or brought directly to the Cambridge or Johnson drop-off locations. All recyclables are eventually hauled to the Chittenden Solid Waste District Material Recovery Facility in Williston to be processed, baled and sold. LRSWMD staff estimate that the Lamoille district's recycling rate is about 12% of the total stream, resulting in about 60 tons per year of recyclables being shipped out of Waterville.

The following information from the LRSWMD 2006 Solid Waste Implementation Plan addresses future waste capacity:

The District currently has a long-term transportation and disposal contract (5 years) with Casella for loose waste collected at some of the local drop-offs. That loose waste is currently being shipped to Northeast Waste Systems (a Casella subsidiary) landfill in Coventry, VT, which has permitted capacity for 2.5 years of service to LRSWMD. Compacted waste from the Stowe Transfer Station is currently shipped to the WSI Landfill in Moretown, VT, which is getting near full to capacity [*note: the Moretown landfill has since closed*]. The District has had discussions with WSI and Casella management about their long-term capacity plans for their respective landfills. WSI and Casella are seeking permits to expand the landfills and extend their life for

another 18-20 years. If those contracts are canceled or expansion plans fail, the LRSWMD will seek arrangements to send compacted waste to other landfills like the Mt. Carbury Landfill in Berlin, NH. Other Districts such as Greater Upper Valley Solid Waste District, Northwest Solid Waste District and Chittenden Solid Waste District have plans to construct landfills in their region.

In addition to waste management, LRSWMD strives to educate the public about waste-related issues, including recycling, hazardous waste, computer disposal, and illegal disposal methods. With education, outreach, planning and public participation, LRSWMD is addressing goals in 3 primary areas:

1. waste reduction,
2. reuse of goods, and
3. increasing the recycling rate for all materials.

However, solid waste management practices are changing. In January 2013, the Vermont Legislature passed Act 148 (H.485). This law institutes phased-in bans on recyclable and compostable materials, and requires parallel collection (collection of these materials in the same locations where trash is collected). It has been demonstrated that the recycling of materials conserves resources while reducing energy consumption and green-house gas emissions. The gradual phasing-in of mandatory recycling sends a clear signal to private and public sectors that the materials will be available, which provides an incentive to invest in necessary infrastructure, and also provides time to construct infrastructure necessary to meet the demand. The schedule for implementation is as follows:

- 2014 for generators of more than 104 tons/year
- 2015 for generators of more than 52 tons/year
- 2016 for generators of more than 26 tons/year
- 2017 for generators of more than 18 tons/year

By 2020, all food residuals, including that from households, must be diverted with no provision for distance. Waterville will work with current waste haulers to create a system for its municipal and educational facilities and its residents to comply with this mandate. Education and training should be made available to ensure the transition is as smooth as possible.

Disposal of solid waste materials by dumping (other than in a licensed landfill) or by burning is illegal under Vermont law. Enforcement at the state level has been unreliable except for the most public and notorious cases. Many towns in the region have enacted local ordinances to discourage these activities. The Waterville Selectboard adopted a burning and dumping ordinance for the benefit and protection of the people of the town. The Planning Board encourages the Selectboard to now adopt a health ordinance to further ensure the health and safety of all residents.

### **Water Supply**

There is no Town-wide water supply in Waterville and no plans to build one. Most houses in Waterville have individual springs or wells. There is a small water system, Waterville Fire District #1, which services

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33 structures in the village area, including homes, churches, businesses and the Town Hall. At this time, there are no plans to expand this service area and no need to expand. The Fire District began as the “Waterville Water Co-op” in 1942, as locals looked to supply the town with a reliable safe water source. The spring site of the original water source, located on the top of Oakes Road and dug out by hand, serviced just a few of the immediate households below. In the late 1940's a 1,500 gallon tank was installed, and water lines were put into place to service the immediate Waterville village area. In the 1970's, the water lines were extended northward to Walt Tobin's garage and Fox Hill Road. This system stayed in place until about 2004 when it began to fail. At this point, the Waterville Fire District #1 was formed with plans to revamp the system. Using low interest rates from state and federal agencies, the current system in service today was completed in August 2006. A new water treatment building housing two 4,500 gallon tanks is located on Oakes Road.

Upgrades and improvements to this system will be evaluated on an as-needed basis, should the need arise.

The Agency of Natural Resources Department of Environmental Conservation regulates all water supplies.

**Wastewater Disposal**

There is no town-wide wastewater disposal system in Waterville and no plans to construct a community system. Thus, the Agency of Natural Resources Department of Environmental Conservation regulates all on-site septic systems.



**Education**

## **Chapter 5. Education**

### **Waterville Policy for Education**

Seek to continually improve the quality of education in Waterville to prepare its citizens for lifelong learning.

### **Waterville Recommendations / Action Items for Education**

The Waterville Planning Board recommends working with the School Board to monitor enrollment trends at the Waterville Elementary School. If the need arises to discuss capacity issues, discussions with Belvidere to re-open the Belvidere Elementary School should be raised.

### **Schools**

The current Waterville Elementary School (WES) building, constructed in 1995 and opened in 1996, is located on 16 acres along Route 109. WES is a member of the Lamoille North Supervisory Union which includes Waterville, Belvidere, Cambridge, Eden, Hyde Park, and Johnson. Students within each town attend one of five local elementary schools prior to advancing to Lamoille Union Middle and High School, which are located alongside the District's business office at a shared campus on Route 15.

The Elementary School budget for 2013-2014 was \$1.4 million, a 1.125% increase from the previous year. During the 2012 year, the school faced mechanical issues. The afterschool program had been running through grant funding. A new grant has been received running from 2013 to 2018, at only 50% of the previous amount, and the community was asked to supplement the funding. One measure of the school's success is statewide test scores. In 2012, Waterville students scored the highest in Waterville Elementary School history, with 67% of students reaching proficiency levels in math and 72% in reading.

Waterville residents are proud of the WES and their interest has led to many instances of individual and community support in the form of personal and financial assistance, making the school a true community effort. The Waterville Parent Organization has raised money through a variety of methods— a quilt raffle, movie nights, sales of a Waterville cookbook, a spaghetti dinner, a raffle night, catalog sales, and prize bingo. Funds have been used to purchase playground equipment and to offer other supplies, field trips, and activities for the WES students. Additionally, the Parent Organization wrote several grants and was awarded funds to help pay for the new playground equipment.

The Elementary School grounds and ball fields are lighted thanks to a donation from the Vermont Electric Cooperative and grants applied for by parents and Deb Arel, school secretary. The grounds now host soccer and baseball fields, a basketball hoop, a map of the United States painted on the pavement, and a playground. The playground is the result of community members' donations of time and money. The building contains five classrooms, a library, a full service kitchen, a gymnasium/cafeteria, and offices for special education, guidance, nurse, reception, and principal.

**Education**

In 2004, the school welcomed students from the Belvidere School as part of the learning community. Enrollment has fluctuated, but has been fairly steady since they were tuitioned in. Changes in enrollment can be seen in Table 5-1. As of the 2013 – 14 school year, there are 60 Waterville students at the elementary school compared to 36 students from Belvidere.

All 7 through 12th grade students are enrolled at Lamoille Union High School in Hyde Park. Since 2006, enrollment has been decreasing slightly (Table 5-2). Waterville has 50 students enrolled at Lamoille Union High School and 10 students at Green Mountain Technology and Career Center (GMTCC) as of 2013-14. Special Education, Early Essential Education, and services for students covered under the Individuals with Disabilities Education Act (IDEA) are provided at the Waterville Elementary School.

Table 5-1 Waterville Elementary School Enrollment 2003- 13

Year	Pre- K	K	1	2	3	4	5	6	Total
2013-14									<b>96</b>
2012-13	13	12	11	10	10	12	13	10	<b>91</b>
2011-12	8	14	9	9	14	13	8	7	<b>82</b>
2010-11	12	11	9	12	16	7	8	10	<b>85</b>
2009-10	7	9	12	14	7	8	11	13	<b>81</b>
2008-09	8	11	15	10	8	14	13	12	<b>91</b>
2007-08	14	14	12	9	12	12	12	13	<b>98</b>
2006-07	10	12	8	10	12	11	13	11	<b>87</b>
2005-06	13	7	12	12	10	14	11	11	<b>90</b>
2004-05	13	10	12	8	13	11	11	18	<b>96</b>
2003-04	4	8	6	11	5	8	15	11	<b>68</b>

Source: Vermont Dept. of Education Student Enrollment

Table 5-2 Lamoille Union High School enrollment 2002-10

	2002-03	2004-05	2006-07	2008-09	2010-11
LUHS total	899	903	902	862	860

Source: Vermont Dept. of Education Student Enrollment

The school board is currently in a two-year contract with Lamoille Valley Transportation to provide busing services. Two 34-passenger buses are used. Because of changes in Belvidere’s busing contracts, trips in Waterville have been consolidated. Formerly, seventh through twelfth graders were picked up along Route 109 and at the Village Store. More recently, high school students have been taking the bus to the elementary school and then taking another bus to Hyde Park.

In 2008, the School Board voted to offer a full-day kindergarten, which utilized the space previously used for Pre-K. Waterville rents part of the Belvidere school to house the preschool program, which runs for four mornings a week. Pre-K students who are 4 years old take the bus to the Belvidere School.

## Education

Public preschool is available for all Waterville and Belvidere children that are 3 - 4 years of age on or before September 1st. Current capacity is 16 children. Almost all children take a bus to and from school.

Inside and outside of school, Waterville students are active in sports, music, and community service. Many students participate in band and music programs. The Waterville Baseball Association sponsors teams for adults and kids, among other sports activities.

### **Future Education Facilities**

At this time, the current facilities adequately meet the needs of Waterville and Belvidere. As Waterville's population has been declining, Belvidere's school-age population has been increasing. At such time as school and town officials begin to see a need to expand the facilities, the Planning Board recommends opening discussions with Belvidere about re-opening the Belvidere Elementary School, which is already being used for pre-kindergarten, where school capacity is available.

### **Adult and Continuing Education**

Vocational and adult education is available at the Green Mountain Career & Technology Center (GMTCC) in Hyde Park. Continuing educational programs are available for adults in areas such as Licensed Nursing, Commercial Truck Driving, etc. High school juniors and seniors also have access to career training and educational opportunities at GMTCC. GMTCC offers technical programs in eleven areas of study plus two pre-tech programs and is accredited through the Association of New England Schools and Colleges. Noteworthy programs include automotive technology, culinary arts, business administration, plumbing, electrical, and Heating Ventilation and Air Conditioning (HVAC). The new campus of GMTCC in Hardwick houses the forestry and land management program.

Free educational programs for adults and out-of-school youth are available at the Adult Basic Education offices located in downtown Morrisville. The Family Center in Morrisville hosts "Families Learning Together" for families with children. This program, for adults up to age 25, focuses on high school completion and skill building. Higher education opportunities are available at Johnson State College, the Community College of Vermont, and the Vermont Studio Center in Johnson. Johnson State College offers a variety of graduate and undergraduate degree programs, as well as continuing education services. The College also holds numerous lectures, videos, and community events open to the public at low to no cost. Further, Vermont Interactive Technologies (VIT) is available at Johnson State College. VIT allows participants to engage in classes or meetings that are held off-site. UVM Extension, for example, offers Master Gardener courses through VIT. This technology allows for greater exposure to educational opportunities offered close to home.

The University of Vermont and several other colleges in the Burlington, Montpelier and Northeast Vermont areas are within commuting distance.

## Chapter 6. Health and Wellness

### **Waterville Health & Wellness Policies**

Waterville supports opportunities for residents of all ages to engage in physical and recreational activities, benefiting their health and wellness.

### **Waterville Health & Wellness Recommendations / Action Items**

Waterville should seek funds and opportunities to promote health activities for residents.

The health of our community and its citizens has a direct connection to our economic vitality. Our community can be measured in many ways including social, physical and behavioral health. We need to find ways to promote healthy lifestyles, support positive norms and perceptions around physical activity and substance abuse, and ensure access to community resources and services for our children and families.

### **Health Services**

Health and human service providers are limited in Waterville. There is one local family practice, Dr. Paul Rogers, MD, with an office in Johnson. Residents are likely to go to Johnson or Cambridge for family practitioners, for example the Cambridge Health Center or Sunrise Physical Therapy. The closest hospital is Copley Hospital in Morrisville. This is a 25-bed full service community hospital for acute, outpatient and long-term care. Copley serves as an emergency care center, birthing center, and offers physical therapy, surgical services, and rehabilitation services. More specialized services are available in Burlington and across the state.

Other outpatient care is available at community clinics in neighboring towns. For example, Community Health Services of Lamoille County (CHSLV), also headquartered in Morrisville, is a federally qualified health center which offers quality medical, dental, and behavioral services to residents of Lamoille County both insured and uninsured. Their primary and specialty care practices include Morrisville Family Health Care, Women's Center, The Behavioral Health & Wellness Center, and the Community Dental Clinic. Other local health service agencies include Lamoille Valley Mental Health Services, The Manor Nursing Home, The Lamoille Family Center, The Clarina Howard Nichols Center, and the Vermont Department of Health (Morrisville District Office). It should be noted that Morrisville is more than 30 minutes away from Waterville and Fletcher Allen Hospital in Burlington is an hour's drive.

Ambulance services are provided by Northern Emergency Medical Services in Johnson.

There are several long-term care homes in Lamoille County. Waterville is also served by Lamoille Home Health and Hospice, which provides residents with skilled home nursing, homemaker services, physical therapy and hospice to help residents maintain themselves at home and independently. Over 500 visits were made to Waterville residents by home health nurses, licensed nursing assistants, therapists, and

personal care attendants. Meals on Wheels are available to homebound residents on a daily basis. In 2012, eight residents received over 1,100 meals through this program. In addition, the Lamoille County Council on Aging provides many programs, including free transportation for seniors to health care appointments and nutritional dinners. These services enable adults with disabilities and seniors to stay in their home and community. Central Vermont Community Action Council served 70 individuals in 26 families. This program supports Head Start, home weatherization, emergency fuel assistance, and provides family/ community support.

Vermont 2-1-1 is a simple three digit telephone number to dial for information about health and human service organizations in one's community. By dialing 2-1-1 Vermonters receive free access to community resources through information and referral. This access includes personal assistance by telephone or is online at [www.Vermont211.org](http://www.Vermont211.org) through a searchable database of services.

Rural Community Transportation (RCT) provides transportation for seniors one day a week by arrangement. In 2007, RCT provided 867 trips for 19 residents. In 2012, RCT provided 121 round trips, approximately 3,510 miles, for four Waterville residents.

### **Child Care**

Quality child care matters and makes good economic sense in preparing young children for success later in life.

The Step Ahead Recognition System (STARS) is Vermont's quality recognition system for child care, preschool, and afterschool programs. Programs that participate in STARS are stepping ahead - going above and beyond state regulations to provide professional services that meet the needs of children and families. You can look to STARS as one indicator of quality when choosing child care. The more stars a program has, the more it is involved in a wide range of practices that support children, families, and professionals.

The Department for Children and Families, Child Development Division oversees the child care industry and allows registered home care providers to serve 10 children: 6 under the age of six (of which 2 may be under two years of age) and 4 children of school age (5-13) during the school year.

Legally Exempt Providers are those adults who are caring for the children of no more than two families in addition to their own (this does not mean per day - it means in total) on a regular or continuous basis for less than 24 hours per day. By law, if someone is providing regular or continuous care for children of more than 2 families they are required to be a Registered Child Care Provider.

There are currently two registered home child care providers in Waterville.

For more information about available child care, the Lamoille Family Center provides assistance helping families find child care suited to their child's needs.

*Important to maintaining a healthy community is access to recreation and physical activity. For more information on recreation activities in and around Waterville, see Chapter 4.*

## Energy

### Chapter 7. Energy plan

#### Waterville Energy Policies

Waterville supports the exploration and development of local, renewable energy sources for heating and power, including local wood/biomass, hydro-power generation, and solar and wind power, and supports the following policies:

- Alternative sources of energy for personal and homestead use is encouraged. Larger and/or commercial energy developments need to be evaluated on a case by case basis with sensitivity to overall environmental and aesthetic impacts as well as quality of life issues for neighbors.
- Extraction of earth resources will be subject to best practices and conducted in a renewable and environmentally friendly manner.
- All residential, municipal and commercial energy efficiency and conservation efforts are encouraged, as well as local initiatives to promote such efforts.
- New construction in Waterville should be developed with densities, square footage and designs that optimize energy efficiency. Vermont Residential Building Energy Standards and EnergyStar guidelines should be followed and surpassed.

#### Waterville Energy Recommendations / Action Items

- The Planning Board should work with other groups to assess the eligibility of Waterville households to make use of weatherization funds as soon as they are made available.
- The Planning Board continues to pursue funding and partnerships for ongoing engineering, permitting, and constructing hydro-power generation near the Laraway Sawmill site on the Kelley River.
- The Waterville Selectboard should establish local points of contact to support and lead local energy conservation and development activities, interface with external resources, and pursue funding for local projects.
- The Planning Board supports groups exploring the possibility of methane digestion as a source of energy on local and regional farms.
- The Planning Board should work with other groups to pursue grants that support energy efficiency and renewable energy development.

### Energy Sources and Usage

#### Home Heating

The heating of homes and businesses is an important sector in energy plans, especially in northern Vermont. The majority of Waterville residents heat their homes through fuel oil or kerosene (Figure 7-1 below). Domestic Solar Hot Water systems have also been used effectively to heat water in private

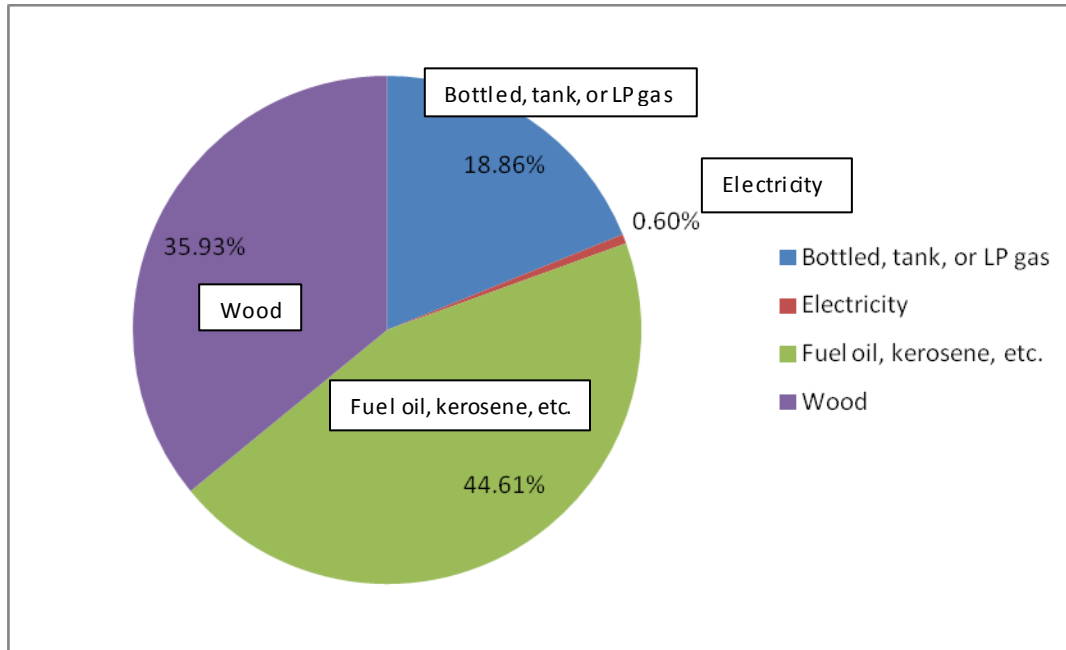
## Energy

residences and businesses.

It is not known what percentage of households acquire partial or total heating energy from local sources. It is estimated that most of the wood used by Waterville households for heat (36% of residences) is supplied locally or from nearby communities.

Electric heat is highly discouraged due to the inefficiency of electric heating systems and the high demand it places on local utilities to provide power. Only 0.6% of residents utilize electric heat in Waterville.

Figure 7-1 Waterville Households by Home Heating Fuel Type (%), 2011



Source: 2007- 2011 American Community Survey

### Energy Sources

Fossil fuel energy sources are purchased from out of town and either brought in directly by household members or delivered by a private company. Households using wood may harvest firewood from their own land or purchase wood elsewhere, either directly or via delivery. These two types of sources are highly reliant on the ability to transport the energy source via roads and store at the household.

Electricity, on the other hand, is normally supplied on-demand by a local or regional utility company over power lines and rarely requires storage at the household. It should be noted that those households using solar power or an electrical generator to heat their homes in 2000 would be listed in different categories by the Census Bureau. It is known that at least 3 Waterville homes are “off the grid.”

### Electric Utilities

Electricity can be generated from a variety of sources including hydro, nuclear, and fossil fuels (coal, oil, or natural gas). Other sources of electricity include solar, wind, biomass (wood burning), and methane recovery (from landfills or farms).

**Energy**

Currently, there is no commercial electricity generating facility in Waterville. All power is purchased from other electrical facilities. The Vermont Electric Cooperative (VEC) supplies electric service in Waterville. The majority of VEC power supplied to Waterville consumers is purchased from HydroQuebec. Three-phase power lines, which allow for the most efficient creation of rotating magnetic fields in electric motors and are conducive to industrial use, follow Route 109 through Waterville until Coddington Hollow Road, at which point the lines split into 2-phase power. The old Laraway Saw Mill was likely one of the reasons for the 3-phase lines.

Apart from heat, electricity is used by most, if not all, Waterville households for lighting, appliances, pumps, and electronics.

Table 7-1 Waterville Electricity Consumption, 2005 – 2010 (kilowatt hours)

Type	2005	2006	2007	2008	2009	2010	% Change, 2005 - 2010
Commercial & Industrial Consumption	299	296	283	242	231	272	-9.03
Residential Consumption	1,907	2,100	2,166	2,129	2,156	2,077	+8.91
Total	2,207	2,397	2,449	2,372	2,388	2,350	+6.48

Source: Vermont Energy Atlas

The Village of Enosburg Falls Electric Department shows a portion of its service area in Waterville although the area is unpopulated and there are no connections to households in town.

**Municipal Facilities and Services**

Public facilities and services require significant expenditures of tax dollars for energy. In 2009, the Waterville Planning Board and Selectboard secured a grant from the Department of Public Service for an Energy Efficiency and Conservation Block Grant for efficiency upgrades to the Town Hall and Town Clerk’s Office. Fuel oil and electricity spending for both buildings from 2009 – 2012 are shown in Tables 7-2 and 7-3. While there have been savings, it will take more years to be able to realize the full extent of the cost savings. Fuel oil fill-ups do not happen regularly and seasonal weather patterns vary from year to year, causing variability in spending for both lighting and heating.

Table 7-2 Municipal Building Spending – Fuel Oil, 2009-2012

Building	2009	2010	2011	2012	% Change, 2009- 2012
Town Hall	\$1,601	\$2,792	\$2,730	\$1,295	-19%
Clerk’s Office	\$1,110	\$3,575	\$2,439	\$1,667	+ 50%

**Energy**

Table 7-3 Municipal Building Spending – Electricity, 2009-2012

Town Hall	\$779	\$885	\$886	\$934	+20%
Clerk’s Office	\$873	\$1048	\$1049	\$950	+8.8%

Source: Waterville Town Clerk

**Local Energy Sources**

The potential for local energy resource development includes wood/biomass, solar, and hydro-generation as the most viable.

With Lamoille County’s wooded nature and the existence of silvicultural and wood processing industries in the county, it is likely that Waterville residents would be able to increase their use of wood and biomass for energy. The Town could explore the feasibility of increased harvesting of trees for firewood, and regional mills and other operations could be contacted to pursue the idea of providing consistent quantities of wood chips and other biomass waste. The Vermont Renewable Energy Atlas estimates there is the potential to create 2,195.89 megawatt hours of electricity from woody biomass.

Small-scale solar power had the reputation of being a costly investment. New technologies have made residential solar panels more affordable and a beneficial energy investment. A statewide analysis, the National Elevation Dataset Digital Elevation Model, identified 888 acres of land that could potentially be used for a ground-mounted photovoltaic solar array. Two properties in Waterville currently use residential solar panels. Small-scale solar projects are encouraged provided concerns related to natural resources, safety and aesthetics are addressed. If every structure in Waterville had a 1 kilowatt hour panel installed, the energy savings would be over 436,000 kilowatt hours. This could translate into a savings of over \$37,000.

Waterville has a rich history of using water power. The concept of local “micro-hydro” power generation is growing in popularity in Vermont, and the Laraway Sawmill site in Waterville was first recognized as a possible site in 1983. In 2008 a grant from the Vermont Clean Energy Development Fund was awarded to Waterville to perform the preliminary site assessment and a feasibility analysis to determine the ability to produce power at this site. Infrastructure needs would have to be known before design, engineering, permitting and construction can be pursued. The local market for the electricity produced at this site also needs to be analyzed. The permitting process for a hydroelectric project at the sawmill site is currently underway as of this plan update.

The erection of private wind towers for the purposes of self-sufficiency is encouraged. Residential scale wind typically consists of a 30 meter turbine that could produce 2.5 – 10 kilowatt hours. Consideration of commercial wind energy requires public debate on aesthetic and financial concerns, as well as environmental impact and noise pollution.

## Energy

### Future Energy Needs and Issues

While no official energy need/use projections exist for Waterville, the steady increase in housing units in town, as depicted in the 1980 through 2010 Censuses, fuels the assumption that energy needs and consumption will grow.

With the volatility in energy prices and the unpredictability of Vermont's electrical market, there will be pressure and opportunities to pursue increasingly efficient household energy use practices and to explore the development and use of more local and renewable energy resources.

#### Energy Efficiency and Conservation

While the exploration of new, more local and renewable energy resources may be needed, Waterville households should first look at energy efficiency measures, including weatherization, appliance conversion, and the moderation of use. The Town of Waterville supports all energy conservation efforts. Local residents are able to take part in programs available through Efficiency Vermont,<sup>5</sup> including rebates on compact fluorescent bulbs and certain efficient appliances and heating systems, assistance with home energy audits, and consultation on EnergyStar compliance for new homes.

Residential, commercial and industrial land uses can save energy by installing more efficient heating, improving insulation, replacing inefficient lighting, appliances and windows, and being sited to take advantage of passive solar heating. Energy efficiency improvements on average can yield up to a 10-20% or greater return on your investment. Efficiency improvements in both municipal and private buildings not only save money on utility bills, but can improve indoor air quality and comfort. According to Vermont Energy Smart and the Vermont Energy Investment Corporation, returns on energy efficiency investments are greatest when addressing the building envelope first. In other words, sealing up your home, business or a public building through proper insulation will give you the biggest "bang for your buck". As the cost of heating fuels such as oil rises to \$4.00 per gallon, both residents and local public officials are encouraged to consider energy efficient improvements for residential, commercial and municipal buildings. To appropriately identify the next steps for improving energy efficiency in public and private buildings in Waterville, visit [www.encyvermont.com](http://www.encyvermont.com) for a list of BPI (Building Performance Institute) certified energy auditors.

The nature of land use can also affect the efficiency of energy use. High residential density, by its very nature, is energy efficient, due to compact living arrangements and less necessity to use automobiles. High residential densities are few and far between along Route 109 in Waterville, but the location of new construction within walking distance of existing amenities and services could be encouraged. Also, the square footage for new residential buildings should be designed for efficiency, affordability and sensibility, and building to EnergyStar standards is highly encouraged. Use of passive solar design (to allow natural lighting and heating) is also encouraged in new construction or home rehabilitation.

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<sup>5</sup> Website: [www.encyvermont.com](http://www.encyvermont.com)

## Energy

There is also a role for local economic development in energy conservation. The creation of more local jobs could limit the needs of residents to commute long distances to work, thus reducing vehicle miles traveled and fuel used.

Those planning to build should be mindful of State energy and ventilation codes. Failure to follow these codes in any new home or addition over 500 square feet must be disclosed as a defect upon sale of the structure. Tax credits are available to assist with compliance.

The Vermont Renewable Energy Atlas is a project of the Vermont Clean Energy Development Fund and tracks energy usage and potential energy generating sites. The Atlas shows that Waterville residents, through conservation measures and reduced consumption, are saving about 100 kilowatt hours a household.

### **Strategies for Financing**

Although energy efficiency improvements can yield significant long-term savings, upfront costs can be expensive. However, there are a variety of methods for financing efficiency improvements for municipal facilities and services (street lighting) including using grants, efficiency incentives, budgets/capital reserves, loans, bonds, performance contracts and a tax-exempt lease purchase. At the state level, energy conservation programs and funding fall under the purview of Efficiency Vermont. Efficiency Vermont was created in 1999 by the Public Service Board to consolidate former utility energy programs into one statewide energy efficiency utility company.

### Grants and Efficiency Incentives

Two potential grant funding sources for municipal building improvements include the Clean Energy Development Fund (CEDF) and Efficiency Vermont. The Clean Energy Development Fund offers a grant program that finances cost effective environmentally sustainable electric and thermal (geo thermal) energy technologies. CEDF grants are available to both individuals and organizations. For more information regarding CEDF grants please

visit: [www.publicservice.vermont.gov/energy/ee\\_files/cedf/CEDF%20Strategic%20Plan.pdf](http://www.publicservice.vermont.gov/energy/ee_files/cedf/CEDF%20Strategic%20Plan.pdf)

Efficiency Vermont provides both technical assistance and financial incentives to Vermont businesses, municipalities, and households. Efficiency Vermont can assist in reducing energy costs through energy efficient equipment and lighting, and by offering energy conservation approaches to construction and building renovations. Additionally, Efficiency Vermont incentives provide a “seal of approval” ensuring that measures installed are cost effective. For more information on efficiency incentives call 1-888-921-5990 or visit [www.encyvermont.com](http://www.encyvermont.com).

Additionally, Efficiency Vermont sponsors the Vermont Energy Star Homes Program. This program provides energy incentives and rebates for new home builders and buyers that build energy efficient homes through the use of reliable clean technologies and energy saving practices. For more information on the Energy Star Homes Program please visit: [www.encyvermont.com/for\\_my\\_home/ways-to-save-andrebates/building\\_buying\\_new\\_home/vt\\_energy\\_star\\_homes/general\\_info/overview.asp](http://www.encyvermont.com/for_my_home/ways-to-save-andrebates/building_buying_new_home/vt_energy_star_homes/general_info/overview.asp).

## Energy

In addition, the New England Grassroots Environmental Fund offers small grants to community based groups pursuing environmental work, such as community energy efficiency projects. NEGEF offers two types of grants; SEED Grants and Grow Grants. SEED Grants are targeted towards small community projects costing under \$10,000. Small grants range from \$250 to \$1,000. Community groups may apply for SEED Grants at any time. Grow Grants are available for communities/local groups engaging in capacity building or program development for community-based environmental programs.

### Budgets/Capital Reserves

Inserting a line item in a town's budget is one of the most common strategies for financing municipal building efficiency improvements. Town budgets can effectively communicate to residents the work scope, cost, and benefits of proposed improvements. This financing strategy is most feasible when dealing with moderate amounts of funding.

### Loans

Towns and individuals are encouraged to take advantage of low interest rate loans from local banks and credit unions to finance energy efficiency projects with a short payback period and/or a sizable return on their investment. The Town of Waterville is also eligible to receive low interest rate loans through the US Department of Agriculture's Community Facilities loan program for energy efficiency improvements to public buildings.

### Bonds

When considering efficiency projects that will cost a substantial amount, bonding may be the most appropriate financial approach. When issuing a bond for efficiency improvements, the most common approach is to finance through general obligation bonds. With this type of bond, payments are issued in annual increments out of general revenues. Bonds can offer fixed low interest rates and longer repayment periods.

### Property Assessed Clean Energy (PACE District)

Property-Assessed Clean Energy (PACE) financing effectively allows property owners to borrow money to pay for energy improvements on a property, including energy efficiency/conservation retrofits as well as on-site renewable energy generation. The amount borrowed is typically repaid via a special assessment on the property's tax bill over a period of up to 20 years. As a result, the loan runs with the property, rather than the individual. Due to the fact that PACE financing is administered through the local property tax system, municipal approval is needed to create a PACE District.

### Performance Contracts

Energy Saving Performance Contracting is more commonly used in larger communities. This form of contracting involves entering into an agreement with a private energy service company (ESCO) that will identify and evaluate energy savings opportunities and recommend a variety of improvements that would be paid for over time through cost savings. ESCO's will ensure that actual energy cost savings are

## Energy

equal to or greater than annual payments. ESCO contract terms usually extend through a time period of 7-10 years. To ensure energy savings are met, ESCO's offer staff training and perform long-term maintenance services during the contract term.

### Tax-exempt Lease Purchase

Tax-exempt leasing is one financial tool that several municipalities already use and could be used to fund energy efficiency improvements in municipal buildings. This method of financing can assist municipalities in overcoming high upfront project costs, by funding up to 100% of an energy efficiency improvement project. Additionally, leasing periods can be set to a time range that will allow for positive cash flow from energy savings.

### Weatherization Programs

In association with Vermont Energy Smart, the Central Vermont Community Action Council (CVCAC) offers weatherization services free of charge to families who meet low income specifications or other qualifying factors such as persons on disability. For more information on the CVCAC Weatherization Program and qualification specifications please call 1-877-919-2299 or visit [www.energysmartvt.com/about-us/cvac/weatherization/](http://www.energysmartvt.com/about-us/cvac/weatherization/)

## Chapter 8. Economic Development

### Waterville Economic Development Policies

- Economic development should draw on the resources and work skills of the Town.
- Ensure that Waterville is a wonderful place in which to live, visit, work, and recreate.
- The Town of Waterville supports opportunities for Waterville residents to work in Town, whether through local job creation, telecommuting, creating office space, or other means.

### Waterville Economic Development Recommendations / Action Items

- The Town of Waterville should continue to explore possibilities for “micro-hydro” electrical generation.
- The Town of Waterville should continue to engage in regional conversations aimed at bringing high-speed Internet access to all Town residents.
- The Planning Board and other groups should engage in projects to ensure that public facilities, such as the Old Waterville Central School (now the Town Clerk’s office), are fully functional and utilized throughout the year.
- The Planning Board and other groups should study the appropriate and sustainable utilization of Waterville’s water power and biomass resources.
- The Planning Board and other groups should study the needs and capabilities for high-quality child care in Waterville.
- The Planning Board supports home-based industries and occupations.
- The Planning Board will continue to seek grant funding to explore local economic development opportunities. The Planning Board should also investigate any possible economic stimulus programs that can fund projects in Waterville.

### Overview

Waterville has very little in the way of local economic activity today. This has not always been the case. During the days of Waterville’s prosperity (1840s-1850s), many businesses flourished. Among these were: a friction match shop; a shop which made wooden rakes, grain cradles, and various wood handles; a legging and belt lace factory; a knife and blade factory; a shingle and gristmill; sawmills; a boot factory which made 500 pairs of boots a year; a flannel mill which produced approximately 374,400 yards of flannel annually and employed 51 people; a starch factory which used 5,600 bushels of potatoes to produce 44,000 pounds of starch annually; a carding mill; a tannery which used 300 calf skins, 35,000 sheep skins and 250 cords of bark annually; a sash factory which produced 50,000 window sashes per year; two cabinet shops; several blacksmiths; and two hotels. Waterville also had the Mountain Spring House, the Union House, and four stores. Waterville had two mines, which produced soapstone, talc and asbestos. Mining was done on a small scale and in 1936 Selectmen were instructed to sell the rights for delinquent taxes. Gold and silver veins have been discovered in Waterville, but not in sufficient quantity to mine.

## Economic Development

Waterville's economic past exhibits the small-scale local manufacturing and extraction industries typical of most Vermont towns. Today Waterville's economic fate exists at the whim of the larger region. Having many residents that commute to other towns indicates that Waterville will likely rise and fall with the regional trends. Creating jobs in Waterville would stabilize tax bases and make the town more self-reliant. Barring the location of new businesses and industries in town, Waterville's economic development efforts could focus on cottage industries, business incubation, office space, and telecommuting.

Overall, economic development is a key aspect of planning because residents must have opportunities to earn a livable wage. Town policies must encourage and support, not discourage and hamper, business ventures. Land use regulations should be crafted to achieve their objectives while limiting the burden on the applicant.

This section offers a substantial amount of data to paint the economic picture of Waterville. Data should be considered carefully as the economic recession of the mid-2000's alters recent trends.

### **Waterville's Resident Labor Force**

The latest Vermont Department of Labor numbers show that Waterville's resident labor force was 440 strong in 2012. Figure 8-1 above reveals that, as Waterville's population has grown, so has its resident labor force. Employment has seemed to keep pace until 2009, when the unemployment rate rose to 9.0%, almost double than the decade before. This most likely reflects the realities of the current economic downturn.

Waterville's unemployment rate has traditionally been higher than the rates of Lamoille County and Vermont, but all three seem to be rising, as shown by Figure 8-2. Waterville's unemployment rate has dropped dramatically since the early 1990's, when it was at a high of 17%. As of July 2013, Waterville's unemployment rate is 5.6%, slightly higher than the county and the state average of 4.4%.

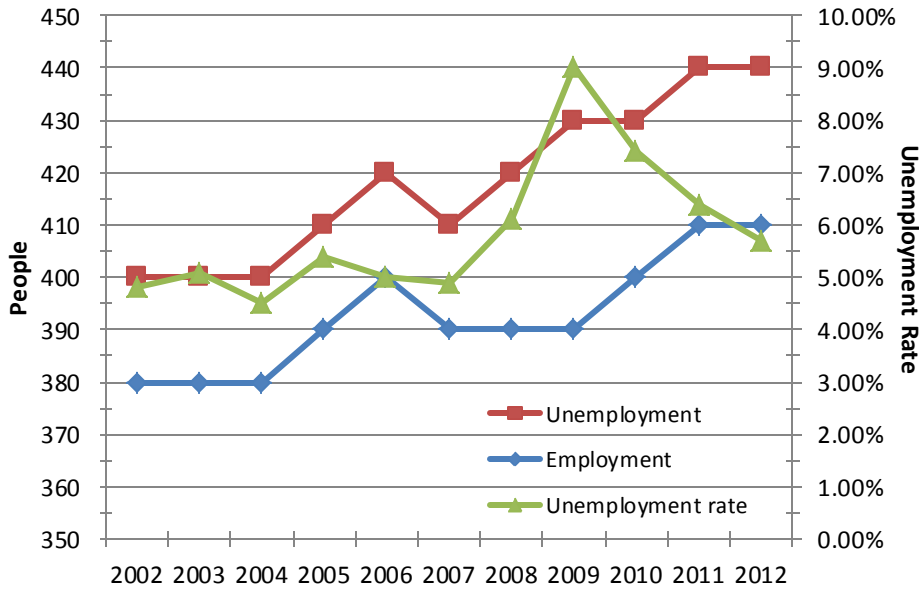
### **Educational Attainment**

There are many different personal abilities, characteristics, skills, and other situational attributes that can determine if and where one is employed and what work is performed. However one of the only contributing variables measured comprehensively across the nation is educational attainment.

Table 8-1 shows that, in 2000, Waterville adults tended to be more likely to have not completed high school nor to have moved on from high school into college when compared to Lamoille County or Vermont overall. The percent of the population who have attended college increased from 41% to 48% in the preceding decade. However these facts may not be of concern, assuming that Waterville's resident labor force can find secure, quality employment that matches their education levels.

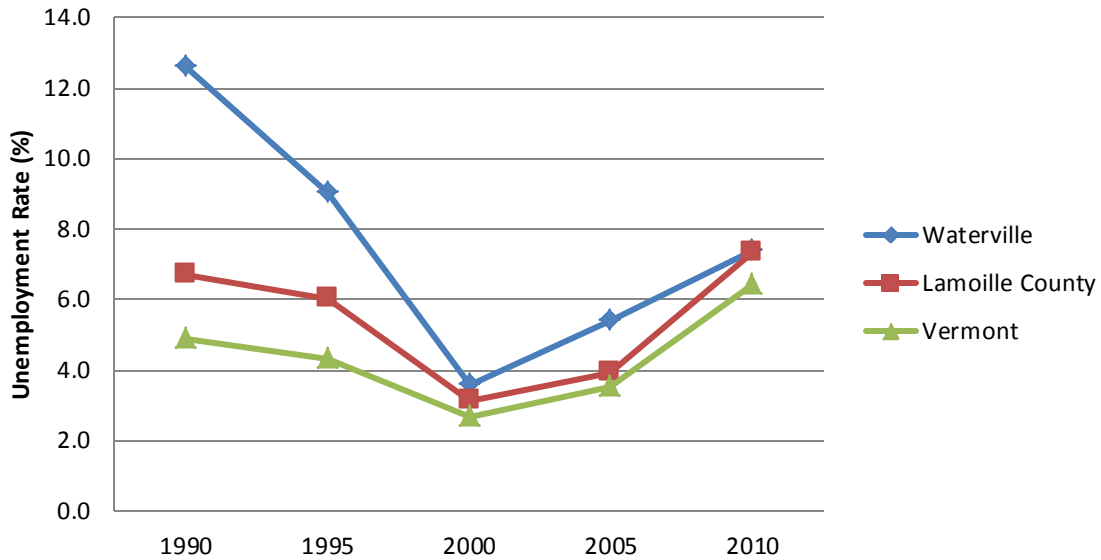
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**Economic Development**

Figure 8-1. Waterville Resident Labor Force, Employment and Unemployment Rate, 2002-2012



Source: Vermont Dept. of Labor, Economic and Labor Market Report, 2013

Figure 8-2. Unemployment Rates of Waterville, Lamoille County, and Vermont, 1990-2010



Source: Vermont Dept. of Labor, Economic and Labor Market Report, 2013

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Table 8-1. Highest Education Attainment of Waterville Adults 18+, 2000 - 2011

	Waterville	Waterville	Lamoille County	Vermont
	2000 Total Population	2011 Total Population	2011 of Population	2011 of Population
Total Population 18 Years and Older	100.0%	100.0%	100.0%	100.0%
...Less than High School	17.5%	13.6%	8.1%	9.1%
...High School Diploma or Equivalent	41.0%	41.2%	31.8%	31.5%
...Attended College	41.6%	48.7%	60.0%	59.4%
...Bachelor's Degree or Higher	22.9%	24.8%	34.6%	30.7%

Source: U.S. Census Bureau, 2011 American Community Survey

**Place of Work**

Like many Vermonters, Waterville residents tend to commute outside town to their jobs. According to the 2011 American Community Survey, Waterville's proportion of those who worked outside town (more than 81%) surpassed both county and state figures. One noteworthy figure is the proportion of Waterville residents working at home decreased slightly between 2000 and 2011 (11% to 10%). This share remains higher than in the county or state and could be an indicator of the potential for encouraging cottage industries and telecommuting in Waterville.

Table 8-2. Place of Work for Waterville Labor Force 16+ Years Old, 2000 and 2011

	Waterville		Waterville		Lamoille County	Lamoille County	Vermont	Vermont
	Count	2000 %	Count	2011 %	2000 %	2011 %	2000 %	2011 %
Total workers 16 years of age and over	344	100.0	424	100	100.0	100.0	100.0	100.0
...worked in their town	65	18.9	70	17.1	35.2	7.3	35.0	15.2
... worked at Home	39	11.3	42	9.9	6.9	8.1	5.7	6.9
... worked outside town of residence	279	81.1	354	83.5	64.8	63.7	65.0	62.7
... worked outside county of residence	114	33.1	167	39.4	28.6	27.1	21.5	15.3
... worked outside Vermont	4	1.2	5	1.2	2.6	1.9	6.8	6.8

Source: U.S. Census Bureau, 2000 Census of Population and Housing and American Community Survey 2005- 2011

The more recent data in Table 8-3 does not depict a work-at-home dynamic, however. More than one fifth of Waterville workers commuted to Morrystown in 2006. Much of Waterville's workforce still commutes to Morrystown but in smaller numbers. The workforce is now divided between a larger pool of towns than in 2006.

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Table 8-3. Top Five Workplaces of Waterville’s Labor Force, 2006

Work Town	Count	%
Morristown	66	21.3
Cambridge	26	8.4
Johnson	25	8.1
Essex	21	6.8
Stowe	18	5.8

Source: U.S. Census Bureau, LED Origin-Destination Data Base (2nd Quarter 2002, 2003, 2004, 2005, and 2006)

Table 8-4 Top five workplaces of Waterville’s labor force, 2011

Work Town	Count	%
Morristown	30	7.5
Burlington	22	5.5
South Burlington	18	4.5
Montpelier	17	4.2
Barre	16	4.0

Source: U.S. Census Bureau, LED Origin-Destination Database, 2011

**Type of Work Performed**

In 2000 most residents of Waterville were employed in private wage or salary positions (58.3%) while the remaining residents were employed by a level of government (21.7%) or self-employed (19.2%). The remaining 0.8% of workers was classified as unpaid family workers. By 2010, those numbers had changed. Most of Waterville’s workforce is still employed in private wage positions but the type of work has shifted.

Tables 8-4 and 8-5 show the occupation and industry of residents of Waterville in the 2000 and 2010 Censuses. A manager of a construction company, for example has as his/her occupation ‘management, professional and related occupations’ while the industry is construction.

Table 8-4 shows that the plurality (39.1%) of Waterville’s resident workforce worked in management and professional positions. Table 8-5 shows that the top three industry sectors for Waterville’s resident workforce were educational services, health care, and social assistance (30.3%), manufacturing (20.8%), and agriculture, forestry, fishing, hunting, and mining (9.8%). The previous Waterville Town Plan identified a concern with the high number of residents employed in manufacturing and construction during the economic recession. Since then, there has been a decrease in the number of people employed in construction (from 11% to 7% of the workforce) but an increase in the number of people working in manufacturing (12% to 20%).

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Table 8-4. Waterville’s Resident Labor Force by Occupation Category, 2000 and 2010

<b>Occupation Type</b>	<b>Count 2000</b>	<b>% 2000</b>	<b>Count 2010</b>	<b>% 2010</b>
Management, professional, and related occupations	116	32.2	164	39.1
Sales and office occupations	71	19.7	78	18.6
Production, transportation and materials moving	63	17.5	65	15.5
Construction, extraction, and maintenance occupations / Natural Resources, construction, and maintenance	63	17.5	44	10.5
Service occupations	36	10.0	68	16.2
Farming, forestry, and fishing	11	3.1	n/a	n/a

Source: U.S. Census Bureau, 2000 Census of Population and Housing and American Community Survey, 2010.

Note: The Farming, forestry, and fishing occupation was joined with the “Construction, extraction, and maintenance operations” category.

Table 8-5. Waterville’s Resident Workforce by Industry Sector, 2000 and 2010

<b>Industry Sector</b>	<b>Count 2000</b>	<b>% 2000</b>	<b>Count 2010</b>	<b>% 2010</b>
Educational services	49	13.6	127	30.3
Manufacturing	45	12.5	87	20.8
Health care and social assistance*	42	11.7	n/a	n/a
Construction	40	11.1	30	7.2
Retail trade	37	10.3	28	6.7
Agriculture, forestry, fishing and hunting, and mining	28	7.8	41	9.8
Other services (except public administration)	25	6.9	23	5.5
Transportation and warehousing, and utilities	23	6.4	18	4.3
Arts, entertainment, recreation, accommodation & food services	23	6.4	25	6.0
Professional, scientific, management, administrative & waste management services	14	3.9	5	1.2
Finance, insurance, real estate and rental and leasing	12	3.3	12	2.9
Wholesale trade	11	3.1	0	0
Public administration	11	3.1	7	1.7
Information**	n/a	n/a	16	3.8

Source: U.S. Census Bureau, 2000 Census of Population and Housing, and American Community Survey 2010.

\*As of 2010, Health care and social assistance is included with Educational Services.

\*\*As of 2010, Information was added as a separate industry.

## **Employment & Wage Characteristics within Waterville**

### **Businesses in Waterville**

Vermont Department of Labor figures indicated that in 2007, 17 businesses provided 47 jobs in Waterville. By comparison, the corresponding figures from a decade earlier in 1997 were 15 and 49, respectively. These job and employment figures cover businesses that pay into Unemployment

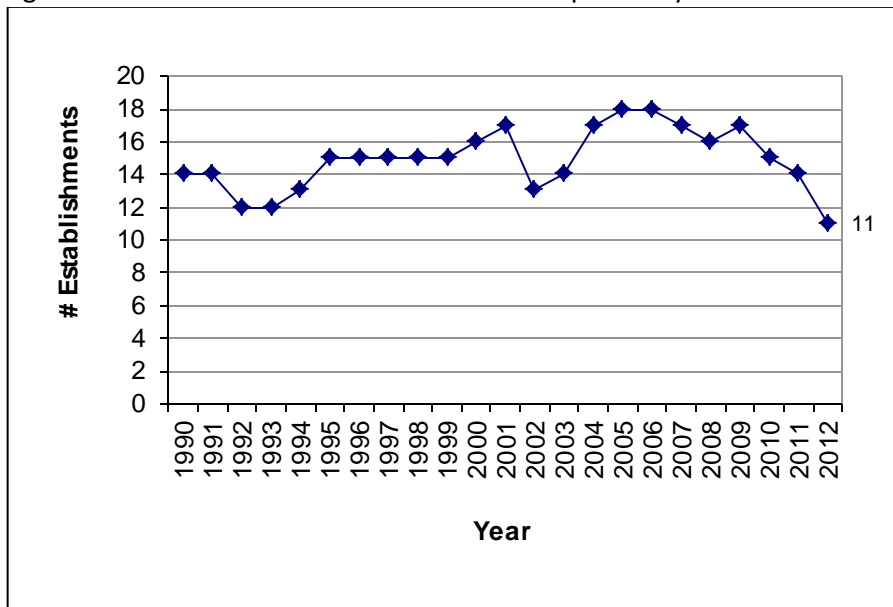
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Insurance (UI). These figures, therefore, do not count self-employed persons or other businesses exempt from UI.

Figure 8-3 depicts the number of businesses that the Vermont Dept. of Labor has recorded in its reports for Waterville from 1990 to 2012. Overall the number of businesses in the State reports had been increasing over the past two decades, with a drop after the 2005-2006 peak of 18 establishments. The number of establishments in Waterville has since fallen to a new low of 11.

It should be noted that agricultural and forestry related enterprises often provide secondary sources of income for rural residents. While agriculture and forestry may not employ someone full-time or even year-round, these industries do provide supplemental income for residents or reduce certain household expenses, such as food. This sector includes farming, haying land, maple sugaring operations, and small-scale livestock husbandry. Data is not available for many of these industries or is often underrepresented in state-wide statistical collection.

Figure 8-3. Number of Waterville Businesses Reported by State of Vermont, 1990-2012



Source: 2008. Vermont Dept. of Labor, Quarterly Covered Employment & Wages report

Table 8-6. Top Five Residence Towns of Those Who Worked in Waterville, 2006

Town	Count	%
Eden	15	31.3
Waterville	7	14.6
Belvidere	6	12.5
Hyde Park	3	6.3
St. Albans (tied)	2	4.2
Morristown (tied)	2	4.2
Hardwick (tied)	2	4.2

Source: U.S. Census Bureau, LED Origin-Destination Data Base (2nd Quarter 2002, 2003, 2004, 2005, and 2006)

**Wages in Waterville**

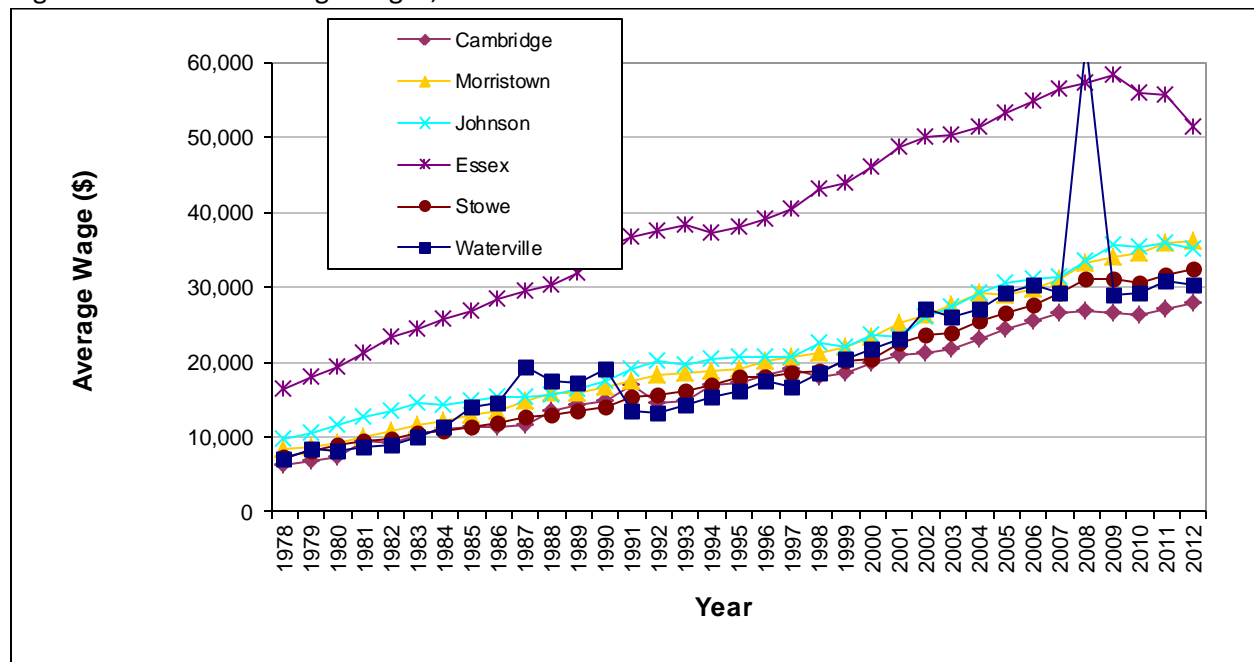
The average annual wage paid by a job in Waterville in 2007 was \$29,175 – a 3.5% decrease from the previous year; when adjusted for inflation to 2007 dollars, the 1998-2007 increase was 35%. Five years later, the average annual wage paid by a job in Waterville was \$30,183. From 2007 – 2012, wages paid at a job based in Waterville increased 3.4%. Figure 8-4 depicts that Waterville’s wages have been increasing overall, as have the wages in the top five towns that employed Waterville’s resident workforce in 2000. The stark difference between the Essex wages and Cambridge wages reveals the high and low wage potential of the Waterville employment region. While the “top five” workplaces have changed since 2000, comparing neighboring community wages offers Waterville a point of comparison.

For the past decade, Waterville’s wages have largely kept pace with adjacent towns. Overall county and state wages have consistently been higher than Waterville’s.

A more detailed look at wages (Table 8-7) reveals how different industries in Waterville compared in terms of wages in 2012. The reader is reminded that these numbers do not include businesses not contributing to Unemployment Insurance. Furthermore, low numbers of businesses and employees in certain industries have forced the State to suppress some figures to maintain confidentiality.<sup>6</sup>

Government employment seems to provide the high reported wages in Waterville. These numbers may not reflect the true situation, however, due to the large amount of suppressed data for Waterville.

Figure 8-4. Annual Average Wages, 1978-2012



Source: Vermont Dept. of Labor, Quarterly Covered Employment & Wages report, 2008

<sup>6</sup> Data is not published that represents less than three private employers or where one private employer represents 80% or more of the data. In addition, Vermont does not publish data with fewer than ten private sector employees. All government data is publishable.

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Table 8-7. Waterville Employment and Wage Figures by Industry, 2007

Industry	# Businesses 2007	# Employees 2007	Average Wage (\$) 2007	# Businesses 2012	# Employees 2012	Average wage (\$) 2012
Total	17	47	29,175	11	35	30,183
Goods Producing	10	C/S	C/S	5	C/S	C/S
...Construction	9	14	20,620	5	C	C
...Manufact-uring	1	C/S	C/S	0	None	none
Service Providing	5	C/S	C/S	4	C/S	C/S
Federal Gov't (Postal Service)	1	3	36,381	1	C/S	C/S
Local Government (School)	1	21	24,954	1	23	28,601

Source: Vermont Dept. of Labor, Quarterly Covered Employment & Wages report. 2008 and 2012.  
 Note: C/S means Confidential/ Suppressed to protect confidential information

**Measures of Total Income**

In contrast with the State’s average wage data, the U.S. Census Bureau measures total income (e.g. wages, dividends, public assistance, etc.) in its surveys. However the 2010 American Community Survey income data will continue to be the most recent for Waterville. Generally Waterville incomes have been depicted lower than, but increasing with, county and state numbers, as shown by Table 8-8. It is not shown but important to note that when adjusted for inflation, the income in 1999 is slightly less than the actual income in 2009.

Table 8-8. Per Capita and Median Family Income, Waterville, Lamoille County and Vermont, 1969-2009

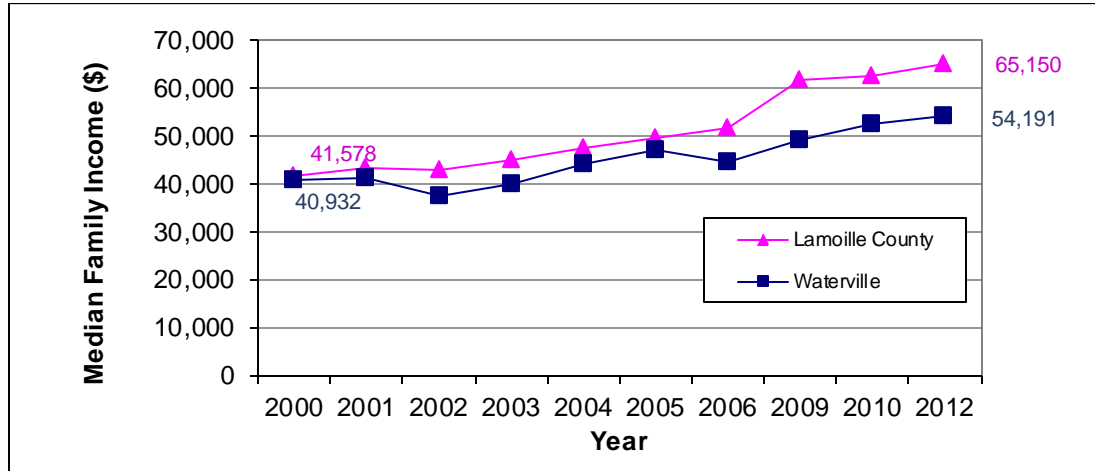
	Per Capita Income					Median Family Income			
	1969	1979	1989	1999	2009	1979	1989	1999	2009
Waterville	2,627	5,540	10,722	18,081	22,987	15,179	30,000	42,857	52,500
Lamoille County	2,820	5,572	12,519	20,972	27,164	15,766	31,772	44,620	62,364
Vermont	4,682	6,178	13,527	20,625	27,478	17,205	34,780	48,625	51,841

Source: U.S. Census Bureau, 1970, 1980, 1990 & 2000 Censuses of Population and Housing, American Community Survey 2010

The median adjusted gross family income data from the Vermont Department of Taxes is also intended as a measure of total income and comes out much more frequently than Census data. However, it should be noted that tax data is subject to a multitude of intricacies, including periodical tax statute revisions, which may hinder their ability to represent local income situations. Like the Census income

data, Figure 8-5 shows that Waterville’s median adjusted gross family income has trailed county numbers while following the same trends.

Figure 8-5 Median Family Income for Waterville and Lamoille County, selected years



Sources: Vermont Department of Taxes, 2007 and American Community Survey, 2009, 2010, and 2012

## Measures of Livability

### The Livable Wage

Aside from an analysis of trends, the Waterville wage and income data presented above means little without data with which to compare. Vermont statutes require the State’s Legislative Joint Fiscal Office to release an annual study of baseline data of the cost of living in the state and the current wage levels within various sectors of the economy. The results of the study are estimates of a “livable wage” for various urban and rural family situations. A livable wage is the salary required in order to meet a family’s needs, including food, housing, clothing, taxes, meager savings, and personal portion of health insurance<sup>7</sup>. The larger the family, the more income is required to fulfill those needs. Table 8-9 below depicts the 2007 livable wage figures.

According to the 2007 data, as depicted by Table 8-9, a single person with no children needs to earn \$30,307 per year (\$14.57 per hour) to meet basic needs. This number is higher than Waterville’s 2007 annual average wage of \$29,175 (Figure 8-4). When the livable wages are compared to specific industry sectors (Table 8-7), only the 2007 federal government wages paid at the post office would have sufficed. The same is true, even if one doubles the average wage in Waterville to match the livable wage for a dual-earner household. The health insurance coverage factor could make the difference however, since the annual average wage figures do not include that benefit.

Of the towns that Waterville residents tend to work in, Morristown and Johnson, 2007 annual average wages meet the livable wage figure for a single person with no children. The Essex figure is sufficient for two parents and two children with one wage earner.

<sup>7</sup> The livable wage data assumes the employer pays 84% of health insurance premium for single persons and 73% for families’ premium costs.

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Table 8-9. Livable Wages for Rural Families in Vermont, 2007

<b>Livable Wage: Basic Needs + Taxes</b> (all figures per wage with employer-assisted health insurance)	
<b>Family Unit</b>	Hourly wage (Annual Wage*)
Two adults, no children	\$13.04 each (\$54,246/ yr)
<b>Single person, no children</b>	<b>\$16.41 each (\$34,132/ yr)</b>
Single parent, one child	\$23.04 each (\$47,923/ yr)
Single parent, two children	\$28.58 each (\$59,446/ yr)
Two parents, one wage earner, two children (assumes no childcare)	\$30.11 each (\$62,629/ yr)
Two parents, two wage earners, two children	\$18.75 each (\$78,000/ yr)

\*Annual household income

Source: Peace & Justice Center's Vermont Livable Wage Campaign

One could use this simple analysis to explain why so many members of Waterville's resident workforce commute to towns with higher average wages. This could be brought a step further to conclude that Waterville needs more businesses and jobs in higher-paying industry sectors. However, before policy decisions are made based upon this data, the user must come to terms with the fact that data like these are based on many assumptions, and their application forces the comparison of averages to averages. These data are convenient and useful, but they will not substitute for exploring the issues and solutions with the affected community-members, themselves.

**Poverty**

An opposite condition of livability would be poverty. Table 8-10 shows that poverty rates have traditionally been higher in Waterville than in the surrounding county and state, save for the 1999 child poverty rate. Poverty rates seemed to have decreased between the 1990 and 2000 Census.

Table 8-10. Poverty Rates, Waterville, Lamoille County and Vermont, 1989 - 2009

Poverty Rate (%)	...of All Individuals			...of Children (under 18)			...of Families		
	1989	1999	2009	1989	1999	2009	1989	1999	2009
Waterville	11.7	10.7	14	13.5	10.8	18.3	7.4	6.8	9.8
Lamoille County	11.1	9.6	12.0	12.4	11.2	15.0	7.3	6.4	8.7
Vermont	9.9	9.4	11.1	11.9	11.2	13.7	6.9	6.3	7.1

Source: U.S. Census Bureau, 1980, 1990 & 2000 Censuses of Population and Housing. American Community Survey 2006 - 2010

**Local Taxes**

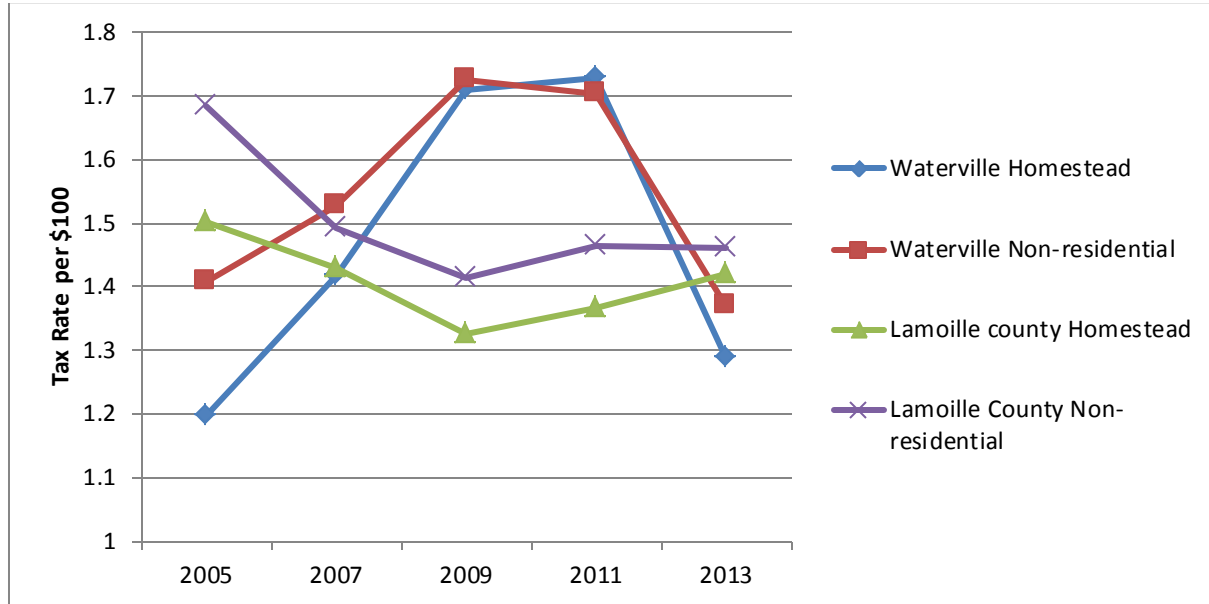
Another important component of economics, and something against which to compare wages and income, is taxes. Federal, state wide and local taxes are raised to fund services and programs. For areas with larger or more expensive services, tax revenues will need to be higher to pay for them. From an economic development view, it is optimal if taxes are predictable and relatively low. Residents of Waterville have the most influence on their local tax rates. Rates can be kept steady through good budgeting including a capital budget and program. They can be kept low through efficient spending and by controlling increases in services. As roads and education are, by far, the services with the largest

Waterville Town Plan 2014 - 2019  
**Economic Development**

budgets, road policies and education policies (including land use decisions) are important to controlling tax rates.

Waterville’s municipal tax rates, which fund all non-education town services, are generally lower than the county average. Waterville’s municipal tax rate is in the middle relative to other towns in Lamoille County. Also, Waterville’s tax rate seems to be rising to meet the county average. Sharp decreases in the town rates in past fiscal years seem to correspond to local reappraisals.

Figure 8-7. Tax Rates, Waterville and Lamoille County Average, selected years



Source: Vermont Department of Taxes, Property Valuation and Review Annual Reports

As for education tax rates, Waterville’s were above the county average throughout most of the last five years, but not the highest. The rates have been increasing over the past few years. Waterville’s education tax rates have continued to increase, up to 1.4770 for homestead rate payers in 2012 from 2005’s rate of 1.2362. In 2005, five other Lamoille County towns had higher tax rates than Waterville. In 2012, only Belvidere had a higher homestead tax rate.

Waterville has little commercial or industrial property and relies heavily on residential properties to pay property taxes. Residential properties typically use more tax dollars in services than they pay in taxes. An increase in commercial and industrial properties could stabilize or even ease tax rates for homeowners in Waterville.

The FY2008 Common Level of Appraisal (CLA) ratio for Waterville, which was used by the State to calculate the fiscal year 2007 homestead education tax rate, was 0.8676. The CLA for 2011 was set at 0.8351. This ratio is below the county average and will continue to decrease until Waterville funds a reappraisal and brings its grand list back in line with statewide averages. More often than not, bringing a town’s CLA close to or above 1.0000 will also lower the overall homestead education tax rate. It could also have a downward effect on the municipal tax rate.

## **Challenges and Possibilities**

Economic development is vital to the future of Waterville. As we have become increasingly dependent on our neighboring communities for employment, residents are driving more and the town's grand list is becoming more reliant on residential properties to pay taxes. In the future, Waterville will need more commercial enterprises to diversify the tax base. Recognizing that economic development is a complex web, it will take a number of factors to improve incomes, the tax base, and the quality of life for Waterville residents. Some of these factors include: more economic use of the land, utilizing existing assets such as forests, mountains, and water, greater self-sufficiency for existing agricultural producers, access to broadband Internet, and identifying gaps in the economic base of Waterville, such as child care and poverty.

### **Waterville and the greater community**

Waterville has been enjoying steady population growth, but many town-folk don't actually spend the majority of their day in town. What has developed over many years is the importance of a bigger community base that includes Waterville, Cambridge, and Johnson. Given the size of Waterville and its limited resources, it is important to think broadly, and realistically, about what is feasible for Waterville. There is a balance that needs to consider what is most cost effective for residents while keeping them rooted to a "community". What has evolved in Waterville is a trifecta of communities that support one another through economic growth, infrastructure, community development, and quality of life factors.

### **Broadband Internet**

High-speed internet service can be delivered by one of several mediums—DSL, cable, fiber optic satellite, or fixed wireless (WISP). At the time of this plan's adoption, WISP, cable and fiber optic coverage is largely unavailable in Waterville. However, high-speed DSL service is accessible to most residences. Other alternatives are generally considered less-than-ideal, either on the basis of cost (satellite) or performance (dial-up). In the end, comprehensive statewide broadband coverage is likely to be achieved initially through a wireless network. The Town of Waterville recognizes that access to high-speed internet is a primary consideration for: home-based businesses, telecommuters, the cottage software and web development industry, the creative economy, or to informational and transactional resources commonplace in any business in the 21<sup>st</sup> century. Given Waterville's limited infrastructure capacity, improved broadband access has the potential to provide residents with close-to-home employment options. Access to a reliable, affordable Internet service provider could be an important piece for growing the economic base and the sense of community camaraderie in Waterville. Further, the use of social media can be a powerful tool for connecting individuals to one another, thus strengthening Waterville's need for hi-speed Internet.

### **Home Occupations**

Given the limited economic activity in Waterville and the proliferation of broadband internet, home occupations have become an important economic opportunity for Waterville residents. The Waterville Planning Board encourages environmentally sound home occupations (also known as "cottage industries") in all areas of town. The benefits and cost savings of encouraging home occupations / home industries that adhere to applicable state and local regulations is important for bolstering the primary and secondary incomes of Waterville residents, while reducing impacts to the road network.

## Transportation

# Chapter 9. Transportation

### Waterville Transportation Policies

In the area of transportation, the Waterville Planning Board supports the following policies:

- Major roadways, especially Route 109, should have limited road accesses to allow for smooth travel into and out of town.
- New road and driveway accesses must have a suitable sight distance so as to not create blind or hidden driveways.
- At this time, the town will not accept new private roads nor build new roads, and will only maintain class 3 and 4 roads per state standards.
- Land use and development activity must not adversely impact traffic safety and the condition of town roads and rights of way.
- Waterville supports efforts to provide transportation services to assist elderly and disabled residents who wish to remain in their homes.
- Carpooling and vanpooling by local commuters to reduce transportation costs and impacts is encouraged.

### Waterville Transportation Recommendations / Action Items

- Waterville should develop a basic road surface management system (RSMS) inventory for use in scheduling and budgeting needed road repairs, and major improvements to be included in the town's capital budget and program.
- The Town, in coordination with the Vermont Agency of Transportation, should assess road and bridge conditions as part of the Local Highway Infrastructure Study update every three years to establish maintenance and repair priorities and maintain access to state grant match incentives.
- Waterville should continue to support the nonprofit organizations that provide transportation and health and human services at the regional level.
- The Planning Board suggests that Waterville cooperate with the Lamoille County Planning Commission to develop a regional public transportation plan.
- The Selectboard should appoint a municipal representative to the Lamoille County Transportation Advisory Committee (TAC) to coordinate transportation planning, road maintenance and improvements with adjoining towns, and to ensure that the interests of the town are adequately addressed by the region and state.

## Roads in Waterville

Waterville has 19.77 miles of state and town highway. State Route 109 goes through Waterville for 4.21 miles. The table below displays traffic counts for the route by section. Route 109 was resurfaced in 2004-2005.

**Transportation**

Table 9-1 Estimated Average Annual Daily Traffic volumes for Waterville Roads, 2002- 2012

Section	2002	2004	2006	2008	2009	2010	2012
Cambridge town line and Hogback Road	1,200	1,300	1,300	1,400		1,300	1300*
Hogback Road and Plot Road	1,300	1,800	1,800	1,500		1,800	820*
Plot Road and Belvidere town line	880	1,000*	990	950*		840*	850*
Plot Road, east of VT 109					210		
Codding Hollow Road, east of VT 109		110			110		
Beals Hill Road, east of VT 109		210			190		
Lapland Road, west of VT 109		310			270		
VT 109, .1 mile south of Smithville Road		1000			950	840	
Smithville Road, west of VT 109					150		

\*Actual count. All other counts are estimates.

Source: Vermont Agency of Transportation 2011, 2010

Hogback Road is classified by Vermont Agency of Transportation as a Town Highway Major Collector. Traffic data from this time show a decrease in traffic from 1999 (880) to 2011 (760). There was a slight increase from 1999 to 2003 (910) and again in 2007 (720), when the road was resurfaced, to 2011, but traffic has since declined. Traffic along most roads in Waterville, including along VT 109, declined in 2010 and 2012. This may correlate to Waterville’s population decline. Future studies could evaluate the changing traffic pattern in Waterville.

Waterville has a total of 15.56 miles of town highways, classes 2 and 3, all of which go uphill from Route 109. There are 1.39 miles of Class 2 and 14.17 miles of Class 3 roads, which are maintained by the town. There are also 3.42 miles of Class 4 roads, which are subject to review by the Selectboard. There are no state or federally designated scenic roads in Waterville at this time but residents have identified locally scenic roads, such as Phyllis Lane. At this time, the Planning Board supports the current policy that Waterville not assume maintenance and/or ownership of additional roads due to budgetary constraints.

Waterville has a Road Commissioner who is elected by the voters each year. The Road Commissioner hires part-time help and subcontracts work out with the approval of the Selectmen. The Town owns no equipment.

**Transportation**

Table 9-2 Waterville Road/Highway Budget, Expenses, and State Aid, 2001-2012

<b>Year</b>	<b>Budgeted (\$)</b>	<b>Expended (\$)</b>	<b>State Aid (\$)</b>
2001	45,000	72,968	25,147
2002	45,000	74,203	24,151
2003	45,000	75,479	25,271
2004	55,000	74,504	25,841
2005	55,000	113,079	26,415
2006	70,000	102,023	26,389
2007	75,000	122,269	26,360
2008	110,000	Not available	Not available
2009	110,000	96,889	25,331
2010	90,000	101,297	26,291
2011	90,000	133,116	32,838
2012	125,000	241,014*	68,912
Percent Change (2001 – 2012)	177%	230%	174%

\*Includes work repairing damage from 5/29/12 flood.

At present, one needs a vehicle in order to live in Waterville because major stores, services, recreation and work opportunities are generally located more than five miles away. The idea of carpooling and vanpooling has been discussed among residents, and it is hopeful that social media, such as Front Porch Forum, could be an outlet for advertising ridesharing opportunities. Waterville residents drive an average of 32 miles to reach their workplace and are employed in six other counties (Table 9-3, next page).

**Bridges and Culverts**

The three covered bridges in Waterville are listed in the National Register and are, therefore, protected. The three covered bridges, which are all town owned, are on Church Street, Coddington Hollow Road, and Montgomery Road (see Transportation Map). The bridges are inspected regularly by the Vermont Agency of Transportation and upgrades are made when required.

A culvert inventory was conducted in 2004 by the Lamoille County Planning Commission. At that time, there were 170 culverts in Waterville. The condition of these culverts ranged from “Very Poor” to “New”. Lamoille County Planning Commission conducted a culvert inventory in 2013, identifying 151 culverts with 56% being in “Good” to “Excellent” condition.

**Transportation**

Table 9-3 Waterville resident commuting patterns

Number of commuters	County	Town	Approx. Miles
2	Clinton County, NY		79
6	Caledonia County	Lyndon town	61
32	Chittenden County	Burlington city	43
22	Chittenden County	Colchester town	36
25	Chittenden County	Essex town	29
24	Chittenden County	Milton town	23
3	Chittenden County	Shelburne town	49
6	Chittenden County	South Burlington city	34
3	Chittenden County	Underhill town	22
4	Chittenden County	Williston town	32
5	Chittenden County	Winooski city	33
6	Franklin County	Highgate town	34
9	Franklin County	St. Albans town	30
4	Franklin County	Swanton town	39
2	Grand Isle County	South Hero town	42
23	Lamoille County	Cambridge town	9
22	Lamoille County	Hyde Park town	18
67	Lamoille County	Johnson town	14
42	Lamoille County	Morristown town	22
21	Lamoille County	Stowe town	30
5	Lamoille County	Wolcott town	30
3	Washington County	Calais town	48
3	Washington County	Waterbury town	40
Total: 409			Average miles: 32

Source: American Community Survey 2006-2011

**Parking and Sidewalks**

Parking in the village is available along Route 109 at the village store, Post Office, and at the Town Clerk’s Office. There is parking available at the Town Hall and athletic field. However, when there is a large gathering, parking fills both sides of Route 109. In the future, additional parking may be needed in the village. Parking has been discussed during Town Meeting Day and some suggestions include expanding parking at the athletic field or purchasing vacant properties to turn into parking.

There are no sidewalks in Waterville and no need is foreseen.

**Public Transportation**

The Planning Board suggests that Waterville cooperate with the Lamoille County Planning Commission to develop a regional public transportation plan. Rural Community Transportation (RCT) provides transportation to seniors one day a week by arrangement.

## Transportation

### Air Travel

There is a privately owned airstrip in Waterville. Morrisville-Stowe State Airport on Route 100 serves the County's private and charter aviation needs. Burlington International Airport is the nearest major airport with commercial airline service.

### Railroads and Ports

Waterville is equidistant from two operating passenger railroad stations, both about 30 miles away. The first is located in St. Albans. The second is a station in Essex Junction. The Amtrak regularly travels the state of Vermont north and south through both St. Albans and Essex Junction with its "Vermont" line.

The Lamoille Valley Railroad, discontinued in 1994, is located in nearby Cambridge. Efforts over the years to determine what best to do with the corridor culminated with the official discontinuance of rail service, and subsequent railbanking of the entire line from St. Johnsbury to Swanton. The line will remain in railbanked status, preserving the right-of-way of the corridor and also providing for the potential future use of the corridor as a rail line. However, work is expected to begin in 2014 to turn this rail line into a four-season multi-modal recreation path known as the Lamoille Valley Rail Trail.

The nearest ports are located in Burlington.

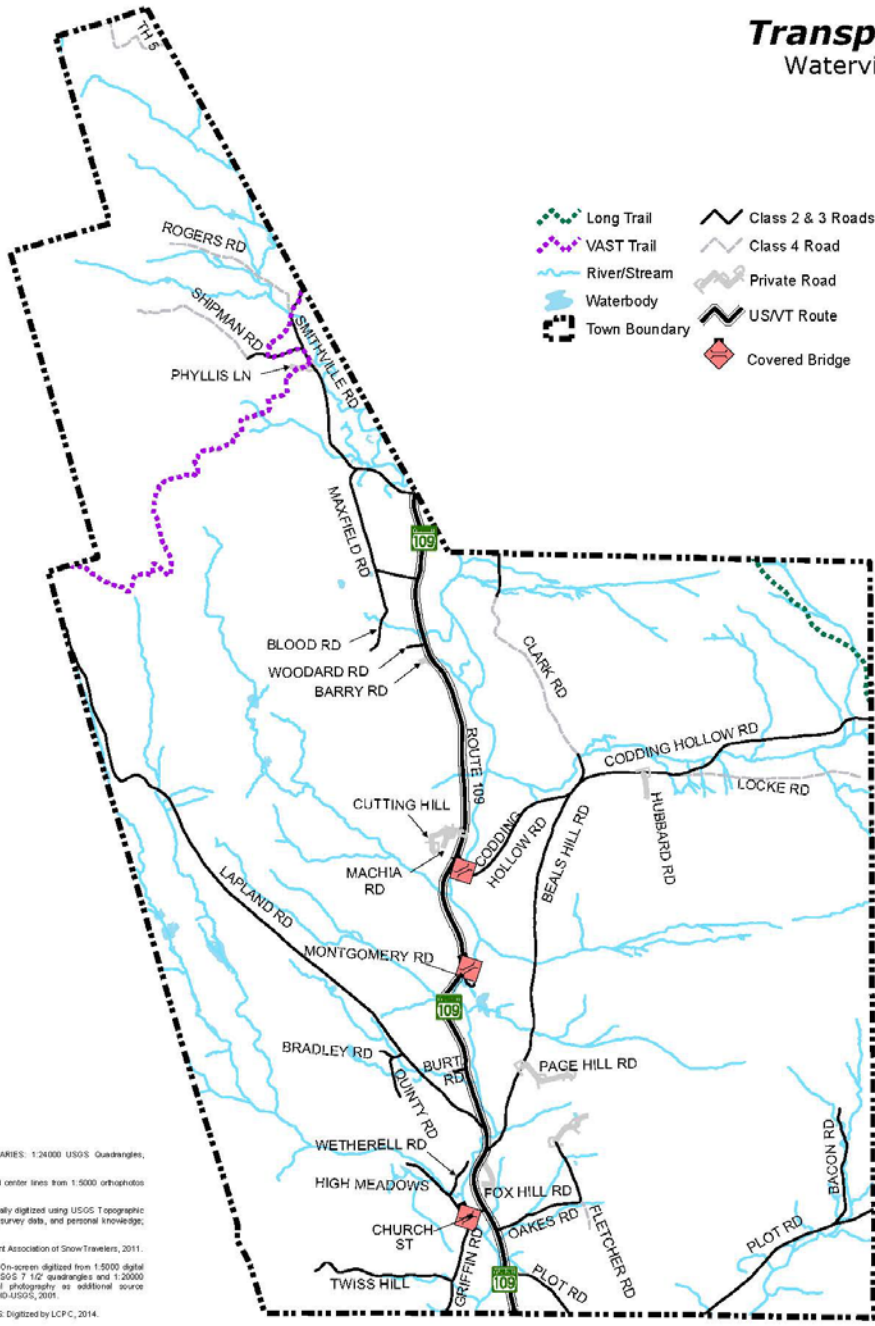
### Bicycles

Bicycling is not commonly used as a mode of transportation for most Waterville residents, given the distance to employment and services. Bicyclists must use the shoulder of the road as there are no dedicated bike lanes or bike paths. Most bicycling in Waterville is done for recreation and it is not uncommon to get bicycle tourists. Future construction should consider adding bike lanes or widening shoulders.

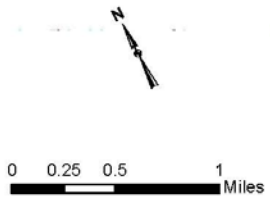
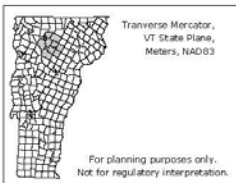
Waterville Town Plan 2014 - 2019  
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- Long Trail
- VAST Trail
- River/Stream
- Waterbody
- Town Boundary
- Class 2 & 3 Roads
- Class 4 Road
- Private Road
- US/VT Route
- Covered Bridge



DATA SOURCES:  
 POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.  
 ROADS: ES11 Road center lines from 1:5000 orthophotos and GPS, 2013.  
 LONG TRAIL: Manually digitized using USGS Topographic quadrants, orthophotos, survey data, and personal knowledge; VCGI, 1993.  
 VAST TRAIL: Vermont Association of Snow Travelers, 2011.  
 SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2 quadrangles and 1:20000 color infrared aerial photography as additional source material; VCGI for VNO USGS, 2011.  
 COVERED BRIDGES: Digitized by LCPC, 2014.



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## Chapter 10. Natural Resources & Land Use

### Waterville Natural Resources & Land Use Policies

Land use and development in Waterville should occur in a manner that preserves the existence of natural and scenic resources, maintains the town's rural character, preserves the use and condition of historic sites and structures, and avoids the fragmentation of land.

In order to protect our ground water, no habitation or waste disposal should occur in areas where the ground water is at a depth of zero to 48 inches.

### Waterville Natural Resources & Land Use Recommendations / Action Items

In the area of natural resources and land use, the Town of Waterville supports the following:

- Adopt Flood Hazard Regulations. Once the town is enrolled in the National Flood Insurance Program, residents living in flood hazard areas will be able to obtain flood insurance. Flood regulations also allow access to increased state funding for disaster recovery.
- Explore the possibility of using the Waterville Land Trust in an active and strategic manner to pursue the town's land use goals.
- Explore the possibility of developing and implementing subdivision bylaws to ensure the preservation of the town's rural character and to avoid the destruction of natural areas and resources through land fragmentation and abuse.
- Explore the adoption of a vegetated buffer zone subject to review or according to state guidelines on both sides of the Kelley River and Taylor, Coddling, Judevine, and Streeter Brooks (see footnote, page 78).
- Agriculture and forestry must abide by State Guidelines (Accepted Agricultural Practices and Accepted Management Practices).
- Any development related to wetlands shall adhere to state regulations.
- Per State regulations, withdrawal of groundwater should not exceed the recharge rate over a reasonable period of time. No form of waste disposal or storage of possible contaminants should be permitted in high-water table and groundwater recharge areas.
- Ensure all construction provides adequate erosion control per state guidelines and regulations.
- Review all Act 250 and Section 248 applications for their compliance with this land use plan. Where the application is determined to not conform to this chapter or to any goal or policy, the Planning Board shall participate in the Act 250 and Section 248 process in order to ensure the concerns of the town are addressed.

### Natural Resources in Waterville

As a whole, Waterville's pristine natural resources are one of the town's greatest strengths. In order to ensure their continued existence and protection, it is incumbent upon the Town to describe and celebrate these resources.

## **AIR QUALITY**

The United States Environmental Protection Agency sets National Ambient Air Quality Standards (NAAQS) which set acceptable levels of various types of criteria air pollutants. Areas whose air meets these standards are considered “in attainment”, while areas that do not are considered “out-of attainment.” Vermont is currently the only state in which no area is currently designated as non-attainment for the NAAQS. However, Vermont is located in the Ozone Transport Region, and as such must meet additional requirements to reduce levels of ozone and ozone forming pollutants.

Chittenden County is very close to being out of attainment for ozone and fine particulate matter. Despite its rural nature, Lamoille County occasionally experiences “bad-air days” due to high levels of fine particulate matter, especially in winter months when “cold-air inversion” traps emissions in low lying valleys. Local sources of ozone and particulate matter come primarily from transportation and wood combustion, though a good quantity of this and other pollutants migrates to Vermont from other areas of the country. The exact proportion of air pollution generated locally is difficult to quantify. If the county were designated as “non-attainment”, the state would need to develop regulations that will require the area to take additional actions to reduce emissions of target pollutants.

As noted above, two primary sources of local air pollution include woodstoves and motor vehicles. Newer woodstoves are now mandated by the EPA to contain pollution control equipment that significantly reduces particulate emissions. Replacing older woodstoves and furnaces will have a positive impact on air quality over time. Motor vehicles are a second local source of air pollution. Strategies such as: reducing driving miles, cleaner burning engines, carpooling/ridesharing, and using alternative-fuel vehicles all would reduce automobile pollution. Increasing local employment opportunities may also reduce the need to commute.

## **Land Resources**

### **Winter Deer Range**

Waterville has many acres of mostly forested wild life habitats, including over 660 acres of suitable characteristics to serve as winter deer range. Deer require specific winter habitat to survive the seasonally severe weather and heavy snowfall. Winter deeryards provide shelter that is important to whitetail deer survival. Wintering areas do not change significantly between years and can be used by generations of deer over several decades if appropriate habitat conditions are maintained. Not only are these areas critical to deer, but nearly half of Vermont’s vertebrate wildlife species rely on coniferous forests for at least part of their life. These areas are outlined the *Significant Habitat* map.

Such sites are usually at low to moderate elevation and are characterized by mature softwood trees of various types. Since there are no alternative sites available for winter deer range, it is recommended by the Agency of Natural Resources that existing sites need protection from intensive human usage, particularly permanent intrusion such as housing developments.

Waterville Town Plan 2014 – 2019  
**Natural Resources and Land Use**

**Rare Plants and Animals**

There are two plants with federal *Endangered* status in Vermont and one plant on the federal *Threatened* list.<sup>8</sup> None of these has been sought or identified in Waterville.

The Vermont Agency of Natural Resources lists no locations of state or federal rare, threatened, or endangered species in Waterville.<sup>9</sup>

*Woodsia glabella*, a rare fern that hasn't been spotted since 1880, was sighted by botanists in Waterville in 2008. Local residents have also seen rare plants such as lady's slipper, trillium, jack-in-the-pulpit and Dutchman's breeches.

**Riparian habitat and buffers**

Vegetation—in the form of trees, shrubs, grasses and herbs situated along stream banks and river corridors—provides food and shelter for many wildlife species. The Lamoille River corridor, for example, supports essential deer habitat. These and other riparian corridors should be preserved both as a matter of wildlife protection, as well as for the purposes of preventing sedimentation and maintaining stream bank stability.

**Wildlife and Connectivity**

In addition to the well-known White Tailed Deer, Moose, Black Bear, Fisher, Red and Gray Fox, Turkey, Blue Heron, Beaver, Mink, a wide variety of birds can be found in Waterville. Maintaining habitat for these species is important for their survival. For example, a bear mast has been identified atop the Fletcher Range. Habitat connectivity is one way to maintain wildlife habitat.

Connecting habitat is land that links large patches of habitat within a landscape, allowing the movement, migration, and dispersal of animals and plants. Riparian habitat along streams and rivers, strips of forest cover between developed areas, and even hedgerows and fencerows all represent potential connecting habitat. Often these areas are called “corridors”, even though they are not always linear, as the term implies. Corridors act as lifelines for isolated populations as they:

- Allow wildlife to move freely across their range
- Allow wildlife to colonize new habitat as climate change, succession, or other ecological processes force them to migrate, reduce the risk of population isolation
- Ensure the exchange of genetic information among populations
- Facilitate seasonal movements (migrations) to essential range or habitat
- Allow adult animals to interact with potential mates, thus improving reproductive success and genetic fitness.

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<sup>8</sup> Endangered: Barbed-bristle bulrush (plant), Jesup's milk-vetch (plant) Threatened: Small whorled pogonia (plant). List current as of 15 November 2012.

<sup>9</sup> According to online ANR *Natural Resource Inventory*, January 2014.

## Natural Resources and Land Use

Reduced connectivity between habitats as a result of the fragmentation caused by roads and development has serious impacts on wildlife populations at a variety of spatial scales. In the short term, habitat fragmentation can restrict species access to seasonal habitat. Roads can act as a barrier between necessary habitats, restricting access or genetic flow between populations.

Prominent ridgelines, including the Fletcher Range along the Franklin and Lamoille County border, provide a scenic background to Waterville, both within Town and on major approaches from neighboring communities. In addition to their scenic values, these features offer other natural resource values. Undeveloped ridgelines are parts of important core habitat, provide important corridors for wildlife, and often also contain head waters of local streams, seeps, and ground water recharge areas. It is possible to locate development in the uplands in a manner that preserves scenic qualities by careful placing of structures below the top-of-ridge and minimizing site clearing and grading.

One way to maintain connectivity involves conservation or protection of critical linkages through easements or outright purchases of land. Other mitigation measures include retrofitting existing underpasses or culverts to allow wildlife passage, or simply installing wildlife crossing signs to alert motorists.

A burgeoning area of biological study is in the movement of flora. It is important to remember that plants migrate and move in the same way as animals, although at a much slower pace. Soil bridges ease plant migration and facilitate safe movement of wildlife. Flora migration is particularly evident as climate change affects the ability of flora and fauna to survive in their natural habitats. Maple trees, for example, are predicted to move further north to adapt to warming southern climates.

The **Northern Appalachians Staying Connected Initiative** is working to help safeguard wide-ranging and forest-dwelling wildlife such as bear, moose, lynx, marten, and bobcat from the impacts of habitat fragmentation and climate change by maintaining and restoring landscape connections across the Northern Appalachians region, which includes the Worcester and Green Mountain ranges in northern Vermont. The network between Northern Vermont and into Maine is a key connection for wildlife across the northeast. Organizations such as this provide an opportunity for both the Town and private residents to get involved with education and proactive wildlife management.

Similarly, the **Cold Hollow to Canada Forest Link Project** is a partnership of community members working together toward the common goal of land stewardship and wildlife habitat conservation through education and outreach, and coordination between local conservation commissions and public entities, and non-profit organizations that share the vision of healthy forests and wildlife for future generations. Waterville is included in the geographic range of Cold Hollow to Canada and the Town and private residents may also consider more active involvement in the group, which has a strong presence to the west in Franklin County and in Craftsbury, to the east. The group is involved in monitoring, sighting, and tracking wildlife movement in important wildlife corridors.

### Regulatory considerations

On a regulatory basis, Act 250 criterion 8(A) mandates that development activity must not “imperil necessary wildlife habitat or endangered species in the immediate area.” According to the Vermont

Waterville Town Plan 2014 – 2019  
**Natural Resources and Land Use**

Natural Resource Board, the habitat must be critical to a life stage of a species and be clearly identifiable—as in the case of the mapped deer wintering and bear habitat. Places identified in this Plan will be used as the basis for Waterville comments for any potential conflict between Act 250 applications and the Plan.

### **Natural, Fragile, and Conserved Areas**

There are no state designated natural or fragile areas in Waterville.

At the eastern corner of Waterville’s boundary is a section of land conserved by the Vermont Department of Forests, Parks, and Recreation where the Long Trail passes through the Long Trail State Forest. Adjacent to that tract is a permanent easement owned by the Green Mountain Club.

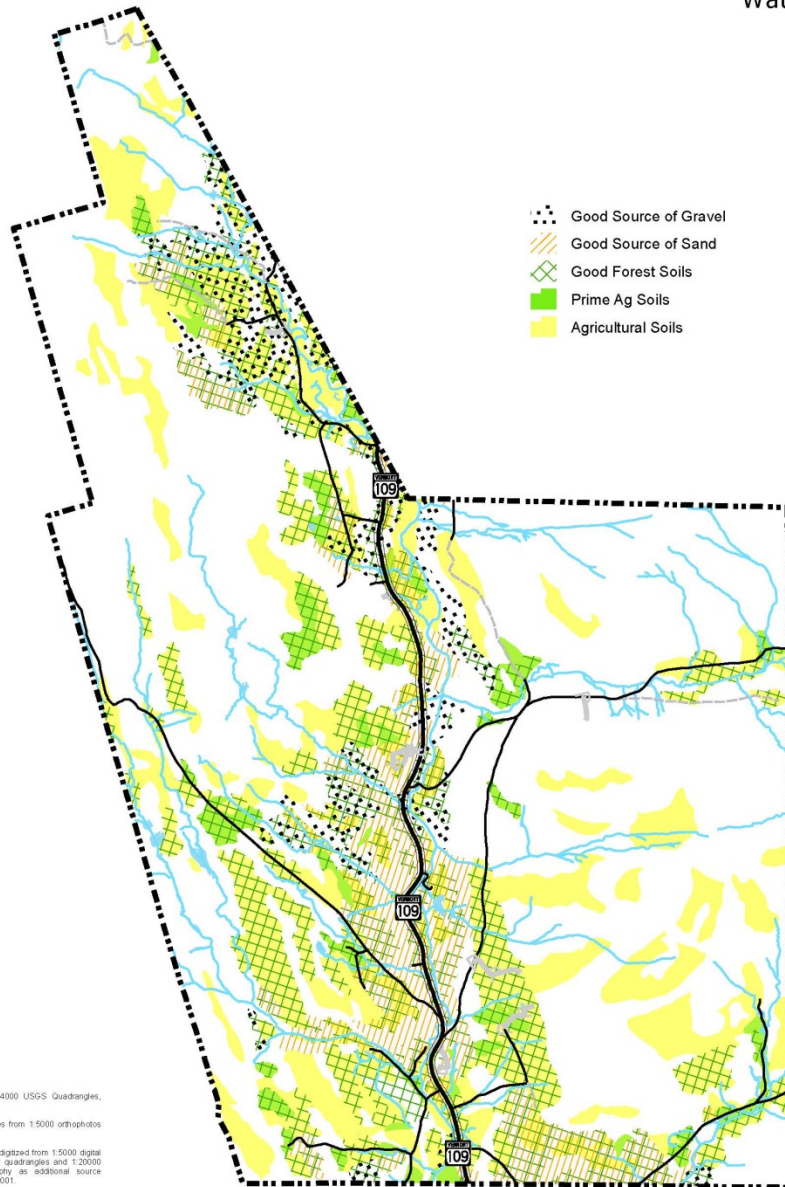
There are two other areas that have been privately conserved through easements with the Vermont Land Trust. They are along the northwestern border of the town. Conserved lands represent 3% of Waterville’s acreage (see the Utilities & Facilities map, Chapter 4).

Additionally, much of Waterville’s land is enrolled in the Use Value Appraisal Program, also known as “current use”. The State of Vermont Current Use Program is a series of four State sponsored tax abatement programs which use financial incentives to encourage agricultural and forestland to remain in production. In each program, the property must remain in agriculture or be managed for forest use to receive tax abatement benefits. The major benefit to the landowner is that the landowner pays property tax on the “use value” instead of the “fair market value” of the property. If the property is developed, the owner pays a land use change tax. So that the Town does not lose property tax revenues, the State of Vermont provides reimbursement to the Town for the difference between the “use value” of the property, and its fair market value.

All lands in the UVA programs (lands designated agricultural, forest, and nonproductive) represent about 43% of Waterville’s total acreage.

Waterville Town Plan 2014 – 2019  
**Natural Resources and Land Use**

**Land Resources**  
 Waterville, Vermont  
**Town Plan**



DATA SOURCES:  
 POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.  
 ROADS: E911 Road center lines from 1:5000 orthophotos and GPS, 2013.  
 SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7.5' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.  
 SAND, GRAVEL, FOREST SOILS: Optically scanned from 1:20000 USDA-NRCS soil maps, 1981. Attributes updated 2007.  
 AGRICULTURAL SOILS: Optically scanned from 1:20000 USDA-NRCS soil maps, 1981. Attributes updated 2007.

Traverse Mercator,  
 VT State Plane,  
 Meters, NAD83

For planning purposes only.  
 Not for regulatory interpretation.

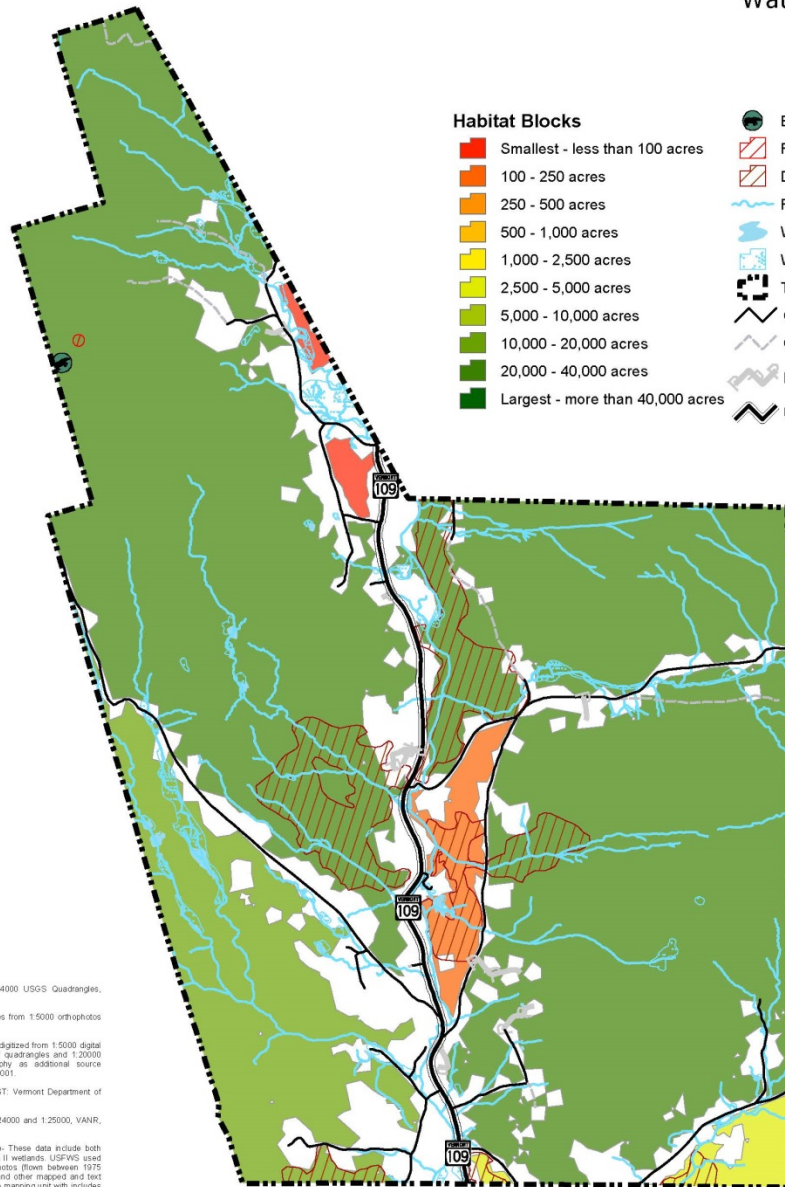


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Waterville Town Plan 2014 – 2019  
**Natural Resources and Land Use**

**Significant Habitat**  
 Waterville, Vermont  
**Town Plan**



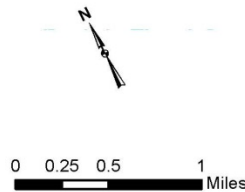
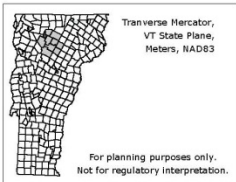
**Habitat Blocks**

- Smallest - less than 100 acres
- 100 - 250 acres
- 250 - 500 acres
- 500 - 1,000 acres
- 1,000 - 2,500 acres
- 2,500 - 5,000 acres
- 5,000 - 10,000 acres
- 10,000 - 20,000 acres
- 20,000 - 40,000 acres
- Largest - more than 40,000 acres

- Bear Mast Area
- Rare Plant/Animal Site
- Deer Wintering Area
- River/Stream
- Waterbody
- Wetland
- Town Boundary
- Class 2 & 3 Roads
- Class 4 Road
- Private Road
- US/VT Route

**DATA SOURCES**

**POLITICAL BOUNDARIES:** 1:24000 USGS Quadrangles, VCGI, 1991.  
**ROADS:** E911 Road center lines from 1:5000 orthophotos and GPS, 2013.  
**SURFACE WATER:** On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.  
**HABITAT BLOCKS, BEAR MAST:** Vermont Department of Fish and Wildlife, 2010.  
**DEER WINTERING AREAS:** 1:24000 and 1:25000, VANR, 2011.  
**VS/VI WETLANDS:** Please note: These data include both NWI wetlands and VANR Class II wetlands. USFWS used 1:50000 color infrared aerial photos (flown between 1975 and 1978), USGS also overlaid other mapped and field data to interpret locations. 3 acre mapping unit with include a 50' buffer. VANR updated as of 1995. Refer to the VANR-DEC, Water Quality Division, Wetlands Section for official wetlands determinations. (802) 241-3770.  
**RARE ANIMAL SPECIES:** 1:24000, Includes 200m buffer. Vermont Nongame and Natural Heritage Program, VANR.



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## **Scenic Resources**

The quality of life of all Waterville residents is greatly enhanced by the abundant, spectacular and peaceful scenery in Town. The value of this resource cannot be gauged in economic terms alone. The educational, spiritual and recreational value of these special areas should be valued. For example, many areas of town afford views of Mount Mansfield, Laraway Mountain, Old Round Top, Burnt Peak, Shattuck Peak, Cranberry Mountain, Peaked Mountain, Belvidere Mountain, Fletcher Mountain, King's Hill Mountain, and the Cold Hollow Mountains.

It is the agreement of the Waterville Planning Board that no commercial energy generation projects should be located above 1,300 feet. If such development occurs, service and access roads shall utilize existing woods roads and trails whenever possible in order to limit the amount of forest fragmentation, and clearing around turbines shall be limited to what is necessary to provide for safe operation of the facility. Any warning lights installed on the facility shall utilize motion sensors so as not to disturb the night sky when aircraft are not present.

## **Agriculture and Forestry**

The use of the land for agricultural purposes plays an important role, both directly and indirectly, in Waterville's economy. It also supports the community's traditional settlement pattern by providing a diversity of land uses and open space. Contrasting with the farmland in the low lying areas, the forested hills and mountains add a dramatic backdrop to the Town. Completing the mosaic of land uses are the village and residential areas that are nestled between and within these landscape features.

Planning for, and supporting the working landscape, is critical to maintaining this balance. Working landscapes, like farming and forestry, contribute to the Town's overall beauty, its economy, and its history. Conserving working landscapes is more than purchasing land and development rights. Conserving our traditional land uses involves a commitment by the community to ensure that the economic foundation that supports this way of life is maintained into the future.

The protection of agricultural resources is key if we are to retain the present character of the community. Land use planning efforts must consider the economic and social factors of agricultural operations. While traditional methods for land preservation can be effective in directing development away from important farmlands, they do not guarantee that the land will be farmed. A viable agricultural economy should protect the working landscape and the family farm. Self-sustaining agriculture and soil regeneration is encouraged through the use of Accepted Agricultural Practices. Agricultural soils are identified on the map *Land Resources*. In addition to farm enterprises themselves, a vibrant agricultural economy relies on the availability of appropriate infrastructure, including roads, utilities, processing, and storage capacity.

There is no way of knowing what farming will look like in ten or twenty years. Over the past decade, it has become necessary for local farms to increase in size. While 300 head of cattle was the exception in 1992, it is now becoming the norm for conventional dairy farms. At the same time, some specialty farms are finding profitable ways of raising herds of 10 head of cattle or less through use of direct

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marketing and value added products. Waterville must remain flexible to the changing face of farming. Any policies that impact farming will need to be reviewed regularly to ensure they do not place an undue burden on the farmer.

Assuming environmental standards are met, the Town of Waterville recognizes the need for our agriculture to grow and adapt to contemporary economic conditions. Consequently, the Town does not wish to place any municipal impediments to farm operations of various types and sizes.

Forestland is a dominant land cover in the community - covering 8,757 acres. However, this number does not indicate what proportion of that woodland is being managed for productive purposes.

Waterville's forest resources contribute directly to the economy through the timber industry and the production of maple syrup. Some of the less quantifiable benefits derived from Waterville's forest resources include habitat for game/non-game species such as deer, bear, and moose; specially adapted plant communities which are important to maintaining wildlife; water resource protection; and recreational opportunities for both residents and visitors. The beautiful colors displayed in the fall are an attraction for visitors who in turn contribute to the local economy.

*Timber Harvesting*

Total timber harvest has declined over the last decade in Lamoille County and the State as a whole. (Town level data is not available.) According to the U.S. Forest Service, statewide increases in the volume of growing stock are twice that of harvesting rates. Past harvesting practices have selectively removed only the highest quality stems (high-grading) resulting in roughly 15% of northern Vermont's growing stock being of such poor quality that it is of little or no commercial value. Long term management, including culling of unhealthy stands, is needed to encourage the regeneration of native species and to improve overall forest quality and value from both economic and ecological points of view.

*Wood for Energy*

In addition to timber, wood is also harvested for energy. There has been an overall increase in demand for wood energy, recognized at both the commercial and institutional level, with 35 schools in Vermont converting from fossil fuel to the use of wood chips for heating between 1983 and 2008. Personal consumer demands have also increased over the last decade, with one recent study depicting a residential firewood consumption increase from 275,000 cords per year in 1997 to 315,000 cords per year in 2008. Use of wood for energy represents an opportunity to continue to manage Waterville's forests despite the poor timber market and lower quality growing stock as some wood that may not be suitable for timber may be suitable for wood chips, wood pellets, or cordwood. It should be noted that cordwood is a major medium by which invasive species spread. Currently, Waterville's forests are relatively free of many invasive insects. Better marketing of locally cut cordwood to residents of Waterville and surrounding communities, as well as visitors to nearby parks and resorts could increase opportunities for Waterville forestland owners, while also preventing the spread of unwanted pests.

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Maple Products

While timber harvesting and the wood products industry appear to be in decline, the use of Lamoille County's forest for maple products is growing. Lamoille County has witnessed a significant expansion within the maple products industry over the past decade, characterized by the growth of existing small and medium scale maple sugaring operations as well as the addition of new operations. Both the number of taps and the total amount of syrup produced in Lamoille County have increased significantly over the last decade (again, town level data is not available). Lamoille County is second highest in maple syrup production in Vermont. Through the Lamoille County Planning Commission's 2011 Forest Stewardship Project, several consulting foresters reported that land previously managed for timber production is now being managed for maple syrup production.

Forest Product Manufacturing

The forest products industry once employed a much larger segment of Waterville's population than it does today. Over the last several decades, many of the large sawmills in the Lamoille County Region have closed, including the Bell Gates Lumber Mill, formerly located in Jeffersonville. Currently, much of the timber produced in Lamoille County is exported to Canada for milling. Increasing the amount of forest products processed nearby could provide employment in support industries such as equipment and vehicle services and providers, sawmills and other processing facilities such as wood chippers, pellet production, and other value added manufacturing facilities. It may no longer be economical to operate a traditional sawmill in Waterville on a large commercial scale. However, small "backyard" mills, portable mills, fire wood suppliers, and cottage furniture makers and wood turners all represent potential opportunities to create local employment while adding value to raw timber materials produced in Waterville.

Forest Soils

The United States Department of Agriculture's Natural Resource Conservation Service has identified the best soils to support commercial forestry, including many upland soils that are too shallow, rocky, or steep to support other types of development. As a result, primary forestry soils are generally less threatened by development but are more sensitive to site disturbance and erosion. To help prevent soil erosion, the State has adopted acceptable management practices (AMPs) to prevent soil erosion and maintain water quality on logging jobs. The Acceptable Management Practices (AMPs) for forestry in Vermont were first stipulated when the Vermont Department of Forests, Parks, and Recreation developed the 1987 guide titled "Acceptable Management Practices for Maintaining Water Quality on Logging Operations in Vermont." Occasionally also referred to as "Best Management Practices," the AMPs are intended to prevent mud, petroleum products, and woody debris from getting into streams, ponds, lakes, and rivers. AMPs also help maintain natural water temperatures by requiring that trees be left along streams and water bodies. They are scientifically proven methods for loggers and landowners to follow for maintaining water quality and minimizing erosion. While AMPs are voluntary, they have the force of law: a violation occurs when there is a discharge to State waters and the AMPs are not in place. Any foresters in Waterville interested in obtaining more information or assistance on the AMPs at their sites should contact the Vermont Department of Forests, Parks and Recreation AMP Program. Forest soils are identified on the following page.

## **Water Resources**

Waterville is fortunate to have extensive water resources. The waters are valuable as a source of drinking water, absorption of floodwaters, wildlife habitat, recreation, aesthetic enjoyment, and power generation. The value of these resources is diminished through pollution, over usage, and treatment.

### **Fishing Resources**

Taylor, Coddling, and Streeter Brooks, along with smaller streams, feed the Kelley River (North Branch), which runs through Waterville to the Lamoille River, as does the Judevine Brook. These waters provide excellent brook, rainbow and brown trout fishing and habitat for spawning and young fish. In addition there are many beaver ponds found throughout the town. Natural vegetation of stream and riverbanks in Waterville consists of alder, black willow and silver maple. Removal of bank vegetation causes elevated water temperatures and increased stream sediment, both resulting in deterioration of cold-water fisheries and spawning. Vermont waterways and their uses are governed by the policies and procedures of the Vermont Department of Water Resources in the Agency of Natural Resources.

### **Rivers and Streams**

Rivers and streams are valuable resources which can help prevent water pollution, preserve wetlands, and provide for wildlife habitat, open space and scenic beauty. The Town may wish to preserve such areas for public usage and education. Extensive development on the river will have a detrimental effect on area fishing.

The ANR lists one priority river in Waterville, the North Branch of the Lamoille River. Sediment has polluted this section of the river. The Laraway Dam was once sited in this same location. While the dam has breached, the natural falls, and much of the infrastructure, remain.

Planning should contain measures for pollution prevention, stream and riverbank stabilization, protection of water habitat and protection from erosion. The Planning Board proposes a buffer zone according to state guidelines<sup>10</sup> on both sides of the Kelley River and Taylor, Coddling, Judevine and Streeter Brooks.

### **Wetlands**

The term “wetland” is used to identify areas otherwise referred to as swamps, marshes, bogs or fens. Generally, wetlands share three basic characteristics:

- 1) The presence of water at or near the ground surface;
- 2) The presence of water-dependent plants occurring on site; and
- 3) Common types of soil.

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<sup>10</sup> For example, currently the Vermont Agency of Natural Resources recommends a riparian buffer of 50-100 feet for all streams. Accepted Agriculture Practices recommend buffers of perennial vegetation 10 feet from the top of a streambank on cropland and 25 feet from the top of the bank at points of runoff.

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Wetlands serve many important ecological functions including stormwater retention, erosion control, ground water recharge and wildlife habitat. Wetlands throughout the country have been inventoried by the U.S. Department of the Interior, producing a set of National Wetland Inventory maps for each municipality. These maps were created using aerial photographs and are useful in determining the general character of a broader area. However, in cases where detailed wetland characteristics for individual parcels are desired, a site visit and survey are usually necessary.

Wetland regulations were first adopted in Vermont in 1990, later consolidated into legislation under Act 115 in 2004 and last amended effective August 1, 2010. The current system establishes a three-tier wetland classification system. Designated Class I wetlands are considered the most environmentally significant and therefore receive the highest level of protection under state law, requiring a 100-foot vegetated buffer between any adjacent land development. There are currently no Class I wetlands located in Waterville. Rather, most local wetlands are designated as Class II—protected from development by a 50-foot buffer. There are numerous Class II wetlands scattered throughout Waterville (see *Natural Resources Map*). Development should be limited on and around wetlands in Waterville. Lastly, Class III wetlands are those wetlands with no delineated buffer. There are no Class III wetlands in Waterville.

Property owners with existing designated wetlands may expand the area classified as a wetland by contacting the Agency of Natural Resources, Watershed Management Division, (802) 828-1835 or [www.vtwaterquality.org](http://www.vtwaterquality.org). Property owners who choose to designate wetlands on their property understand that the value a protected wetland brings to the ecosystem may come with potential limitations on the property's use.

## **Protection of Water Resources**

### **Water Table**

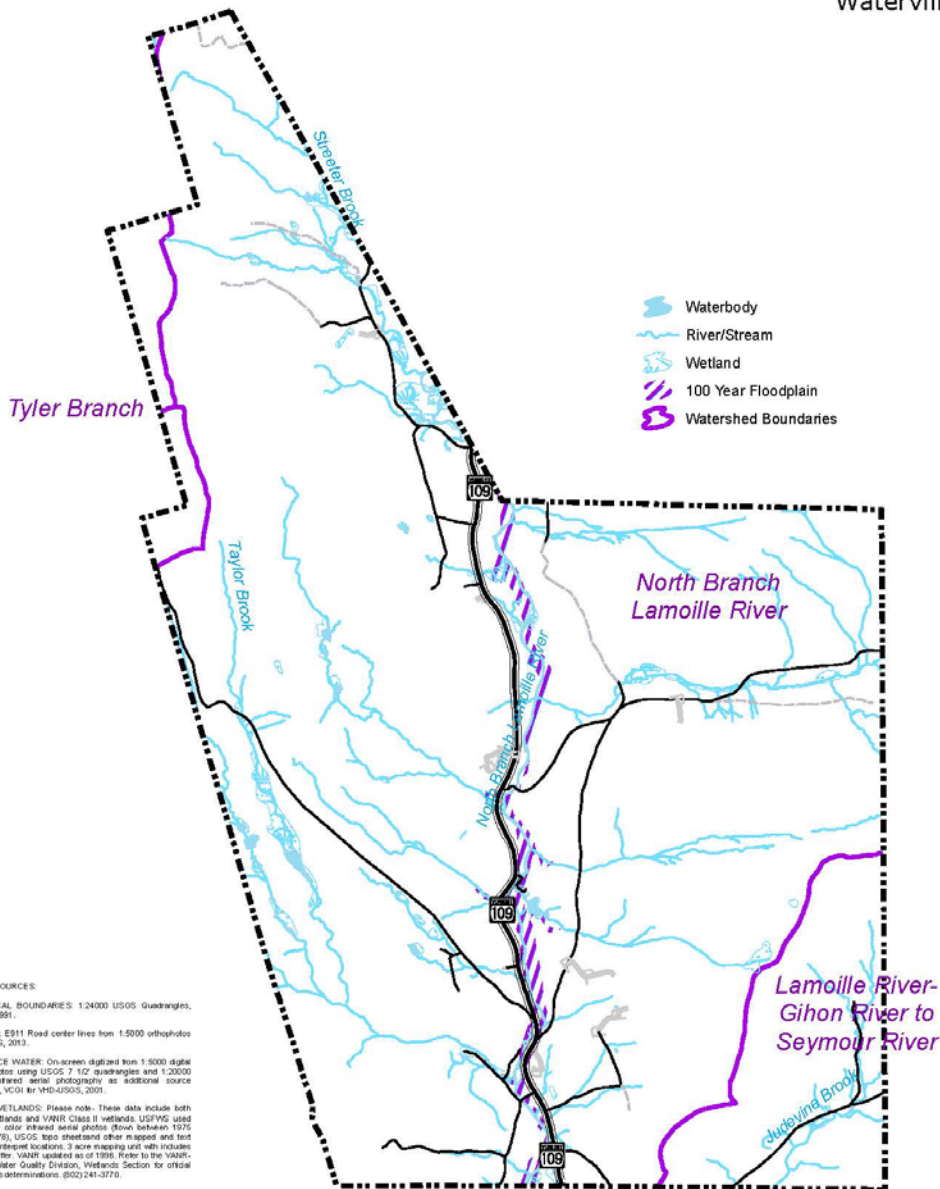
In order to protect our ground water, the Planning Board recommends no habitation or waste disposal in areas where the ground water is at a depth of zero to 48 inches. No alterations may be made which interfere with the natural flow of water to surface water, as detailed in Vermont State rules and regulations.

### **Water quality**

As a byproduct of Waterville's well-preserved landscape of mountains, fields and forests, the town enjoys excellent water quality. All residents and businesses derive potable water from groundwater wells and springs. Accordingly, it is critical for the town to monitor those activities that introduce contaminants into the ground, such as underground storage tanks, septic fields and agricultural activities (in the form of fertilizers and animal waste). Ultimately, substantial impacts to rivers, streams, wetlands and public water systems are subject to a range of state and federal regulations, as described within this plan. While Waterville does not enforce local development bylaws, the town does retain the right to participate in Act 250 proceedings and comment on development proposals—such as those impacting local water quality—based on the policies established throughout this plan.

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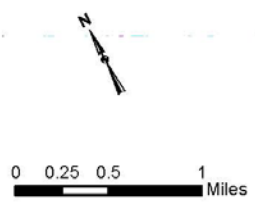


- Waterbody
- River/Stream
- Wetland
- 100 Year Floodplain
- Watershed Boundaries

**DATASOURCES**  
 POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCOI, 1991.  
 ROADS: E911 Road center lines from 1:5000 orthophotos and GPS, 2013.  
 SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2 quadrangles and 1:20000 color infrared aerial photography as additional source material, VCOI for VHD-4505, 2001.  
 WQVI WETLANDS: Please note: These data include both WQVI wetlands and VAWR Class II wetlands. USFWS used 1:50000 color infrared aerial photos ( flown between 1975 and 1978), USGS 1:5000 topographic other mapped and text data to interpret locations. 3 acre mapping grid with includes a 50' buffer. VAWR updated as of 1995. Refer to the VAWR-DEC, Water Quality Division, Wetlands Section for official wetlands determinations (802)241-3770.  
 WATERSHEDS: 1:24,000 data, NRCs, 2003.  
 100 YEAR FLOOD PLAN: Digitized from FEMA Flood Insurance Rate Maps, LCPC, 1983. Floodplains for planning purposes only. Refer to the VAWR-DEC, Water Quality Division, Floodplain Coordinator for official floodplain determinations (802)241-3759.

Transverse Mercator;  
 VT State Plane,  
 Meters, NAD83

For planning purposes only.  
 Not for regulatory interpretation.



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### **The Role of Soils**

General soils information available from the Soil Conservation Service indicates that much of the land area of Waterville has soil limitations of some type and to some degree for sub-surface sewage disposal and/or foundation construction. Some of these soil limitations which can cause problems and should be carefully investigated when considering development of a parcel of land include: (1) shallow depth of bedrock; (2) excessive wetness; (3) soils which do not adequately absorb moisture; and (4) unstable soils. Despite the generally poor soil conditions in Waterville, pockets of suitable soils can be found in scattered locations throughout the town. Existing soils can be protected through organic agricultural practices.

In general, soil conditions in Waterville will require a low to moderate density of development with selected areas for more intense or clustered development. Much of the land areas with soil limitations are relatively inaccessible.

Soil erosion can be minimized by limiting the creation of impermeable surfaces (e.g. roads and parking lots) and managing stormwater run-off.

### **Wastewater System Regulation**

The State of Vermont has all authority over the regulation of potable water supplies and wastewater management systems statewide. In Waterville there are concerns about the State's responsiveness to failed septic systems and overall ability to prevent the discharge of wastes into the community's precious water resources.

One option that Waterville could explore is Municipal Delegation. This is a process through which a municipality can create a regulatory and administrative process that meets the rigor of the State statutes. This possibility could be explored through contacts with Vermont towns that have assumed Municipal Delegation and in following the guidelines and materials offered by the Vermont Department of Environmental Conservation.<sup>11</sup>

Another option to consider is to designate a Health Officer for the Town and adopt health ordinances. The Health Officer would be the liaison between the town and the State. The Health Officer, as identified in Vermont State statute, would be able to conduct investigations into conditions that may be public health hazards, prevent, remove, or mitigate significant public health risks, and enforce certain health rules, including ticketing property owners with failed septic systems and other violations. Health Officers report to the State upon discovery of violation or public health hazards/risks that involve a public or private water and wastewater system, food or lodging establishments, rental housing complaints, animal bites, and other matters as identified by the Vermont Department of Health.

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11 Municipal Delegation Website: <http://www.anr.state.vt.us/dec/ww/mundeleg.htm>

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**Groundwater Source Protection Areas**

Groundwater Source Protection Areas (SPAs) are established to prevent contamination of public water supplies and are regulated by the Vermont Agency of Natural Resources. There is one SPA established for the Waterville Elementary School in the north end of town and another for Waterville Fire District #1 in the south end of town.

**Underground Storage Tanks**

Underground storage tanks, whether existing or removed, can be potential locations for hazardous wastes that can seep into ground and surface waters. The Vermont Agency of Natural Resources lists two underground storage tanks in Waterville.

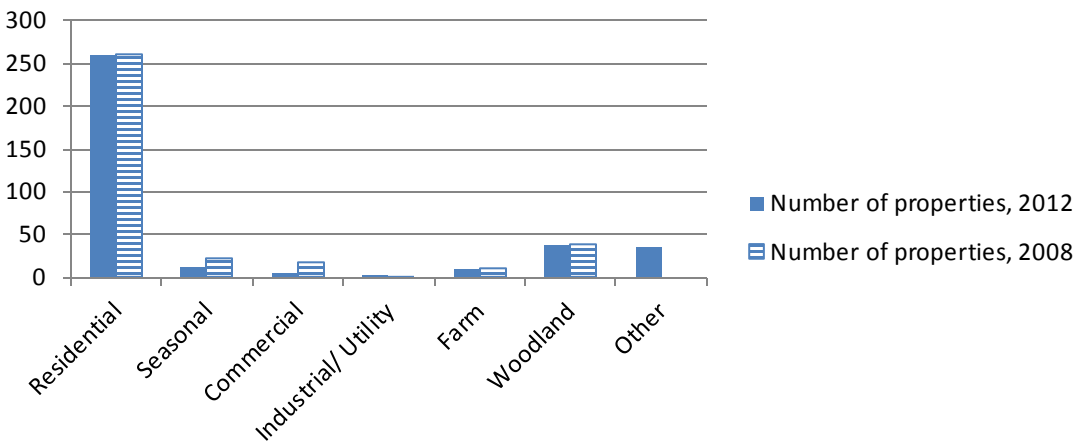
**Hazardous Waste Sites**

Hazardous waste sites need to be identified and managed for clean-up and to limit the damage done to natural resources, especially ground and surface waters. There are no known high priority hazardous waste sites in Waterville. The Vermont Agency of Natural Resources is monitored three low-medium priority sites in Waterville; the third was closed in early 2013. These sites involved small spills of hazardous substances at a farm and two defunct gas stations.

**Planning for Land Use and Development in Waterville**

The vast majority of Waterville’s property and property values are for residential use, as shown by Tables 11-1 and 11-2.

Table 11-1 Number of Waterville properties by type, 2008 and 2012

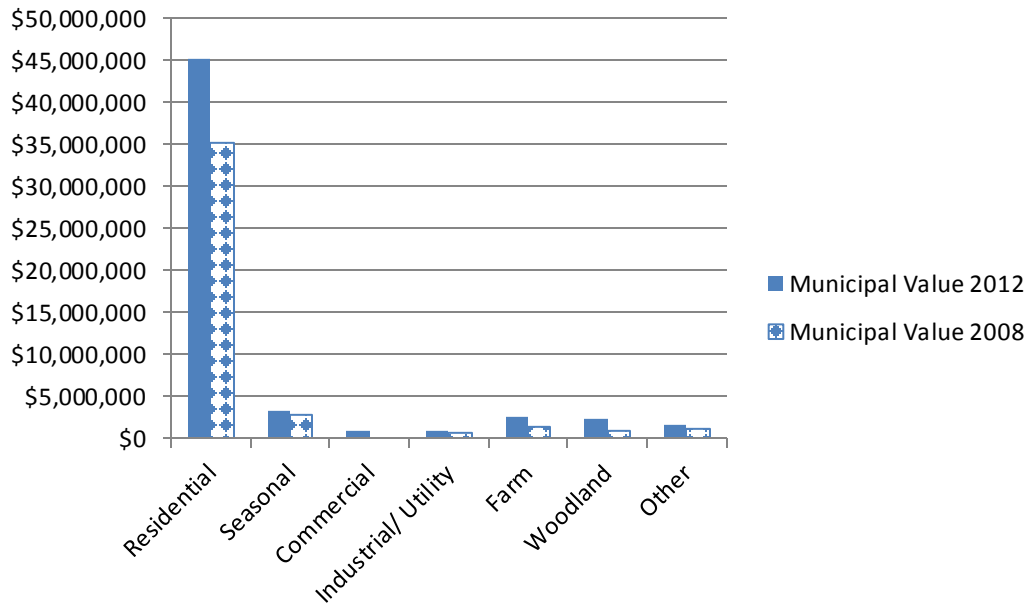


Source: Waterville Grand List, Form 411, 2012.

Note: Residential category includes mobile homes. Commercial category includes commercial apartments.

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Table 11-2 Assessed value of Waterville properties by type, 2008 and 2012



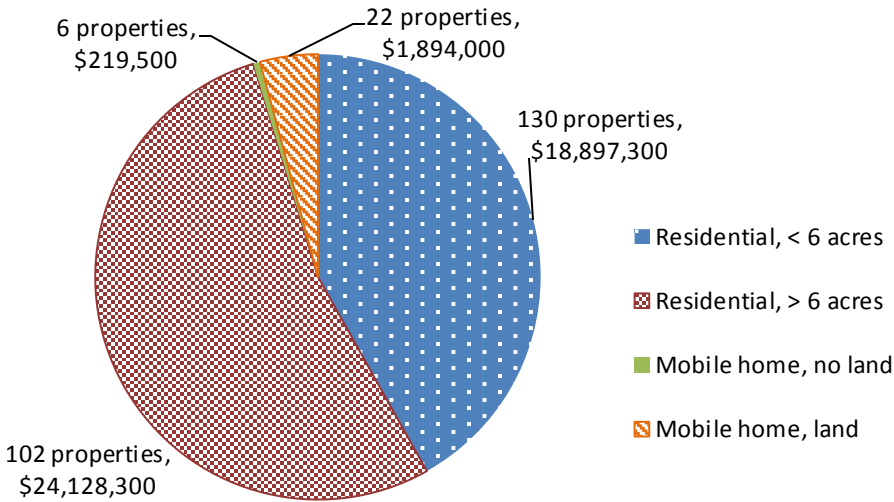
Source: Waterville Grand List, Form 411, 2012.  
 Note: Residential includes mobile homes. Commercial includes commercial apartments.

While the numbers and types of properties did not change significantly from 2008 to 2012, the value increased at least 25% in all parcel types. The value of commercial properties and woodland properties both increased more than 100%. Still, all other land uses only equal about one-quarter of the total value of residential property in Waterville.

Residential properties total over \$45,000,000 in assessed value for Waterville. Figure 11-1, below, shows how residential land uses are further broken down. Residential properties include those less than six acres, those more than six acres, mobile homes with land, and mobile homes without land. Residential properties with land greater than six acres dominate all other land uses in Waterville. This should be kept in mind when making any long-term decisions regarding land use in Waterville. Large lot properties can be vital to maintaining an agricultural and forest economy as well as providing for wildlife habitat movement. Breaking up large lots may have other implications.

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Figure 11-1 Residential properties by number and assessed value



Source: Waterville Grand List, Form 411, 2011

## EXISTING LAND USE AREAS

The Planning Commission recommends that appropriate density of further development in Waterville and the following land use categories are defined based on physical attributes of the land, including slope, soil type, ground water, location of aquifer recharge areas, existing springs, wells and surface water. Development should occur with the availability of the municipality to provide services. The *Land Use* map shows existing and proposed future land use areas.

### Rural Residential /Agricultural Area

The purpose of the rural residential/ agricultural area is to provide for residential and other compatible uses in densities appropriate with the physical capability of the land and the availability of community facilities and services on lands outside of village areas. Certain areas of Waterville have particular suitability for agriculture and forestry. Most of those areas are presently used as such. Once developed, good agricultural and forestry lands cannot easily be returned to production. However, residential development can be accommodated in such a way as to maintain capability between uses. Agricultural use, planned residential developments, open space preservation, and techniques for preserving the rural character of these areas are encouraged. Development should take place in such a way that any irreplaceable, unique, scarce resources and natural areas are not harmed, but rather enhanced.

Although future uses of these lands will depend primarily on regional economic trends, their continued use for agricultural and forestry purposes should be encouraged. Future land use areas may choose to

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separate agricultural lands and forestry lands according to soil productivity and other characteristics (see the *Land Resources* map at the end of this section).

**Village Center District**

The purpose of the village district is to support the role of the village as the focus of many social and economic activities in the community and to provide for residential, commercial and other compatible development that serves the needs of the community. Such development should occur at densities and uses that will maintain the traditional social and physical character of the village, including its historic, recreational, and scenic resources, and that will not exceed the capability of the lands, waters, services, and facilities. Appropriate uses for this district include: residential, commercial, recreation, civic, some light industry, low impact agriculture, and historic preservation.

The Village District includes the Waterville **Historic District** and **State-Designated Village Center**. The Waterville Historic District was entered into the National Register of Historic Places in 2007 and allows the Town to access historic preservation funds through the Certified Local Government program. The State-Designated Village Center was approved in 2006 and allows access to state and federal tax credits for private landowners to rehabilitate and maintain historic buildings. The boundaries of both village areas match closely and run along both sides of Route 109 from just south of Oakes Road to just north of the Route 109 bridge (see Chapter 3: *Village Historic District* map).

**Conservation Areas**

The purpose of the conservation district is to protect high elevations (1,300 feet or higher) that have shallow soils and fragile vegetation and that provide significant recharge to the ground and surface water supplies of the municipality and the region. It also is to protect the watershed to the village water supply. Because of the fragile resources and limitations to development, no community facilities and services will be provided to these areas. Limited, compatible land uses such as outdoor recreational activities that do not involve major structures and forestry that does not create erosion problems or harm unique and fragile areas, could be permitted in this district. No commercial energy generation projects should be sited in this district. Because of the steep terrain, preservation practices are encouraged at all levels.

**PROPOSED FUTURE LAND USE AREAS**

Three potential land use areas have been identified for future consideration or if the Town chooses to adopt any land use regulations.

**Flood Hazard Area**

Waterville has an area identified by the Federal Emergency Management Agency (FEMA) as a Special Flood Hazard Area (see *Land Use* map). The Waterville Planning Board proposes the town establish a local flood hazard area for all areas in the 100-year floodplain along the North Branch of the Lamoille and other waterways in Town. The purpose of the flood hazard area is to prevent flooding caused by the development of lands in flood hazard areas and to minimize losses due to floods. Uses within these areas will be restricted to agricultural, outdoor, recreational, and conservation uses. Examples of

## Natural Resources and Land Use

regulations for this area could include: prohibition of new structures, no extension of public water and sewer facilities or roads to these areas, elevation of structures, and a limit on filling. If this area is adopted, the Planning Board recommends establishing a vegetated buffer area between developments and waterways.

The Town of Waterville should research the benefits of enrolling in the National Flood Insurance Program so residents living in flood hazard areas can obtain flood insurance. If participation in the NFIP is sought, Waterville will need to identify a flood hazard area, develop floodplain management ordinances, and appoint an administrative officer to administer the program. Federal flood insurance would then be available to residents and business owners in high-risk and moderate-to-low risk areas. Insurance is often required for buildings in high-risk areas that have loans from federally regulated or insured lenders. This requirement extends to disaster assistance loans from the federal Small Business Administration. Premiums vary according to the level of risk. The community would be responsible for maintaining the Flood Insurance Rate Maps (FIRMs) that identify risk areas and other pertinent information, such as flood elevations. NFIP is overseen by the FEMA with state coordinators available to assist municipalities in administering the program and regulations.

The benefit of establishing a Flood Hazard Area would mean the town could take steps towards enrolling in the National Flood Insurance Program (NFIP). Changes to federal flood insurance regulation in 2012 call for increased insurance premiums on structures with flood insurance and mandatory flood insurance on real estate transactions for properties located within a 100-year flood plain (the Special Flood Hazard Area). Federal flood insurance is only available to participating municipalities.

### **Agricultural Area**

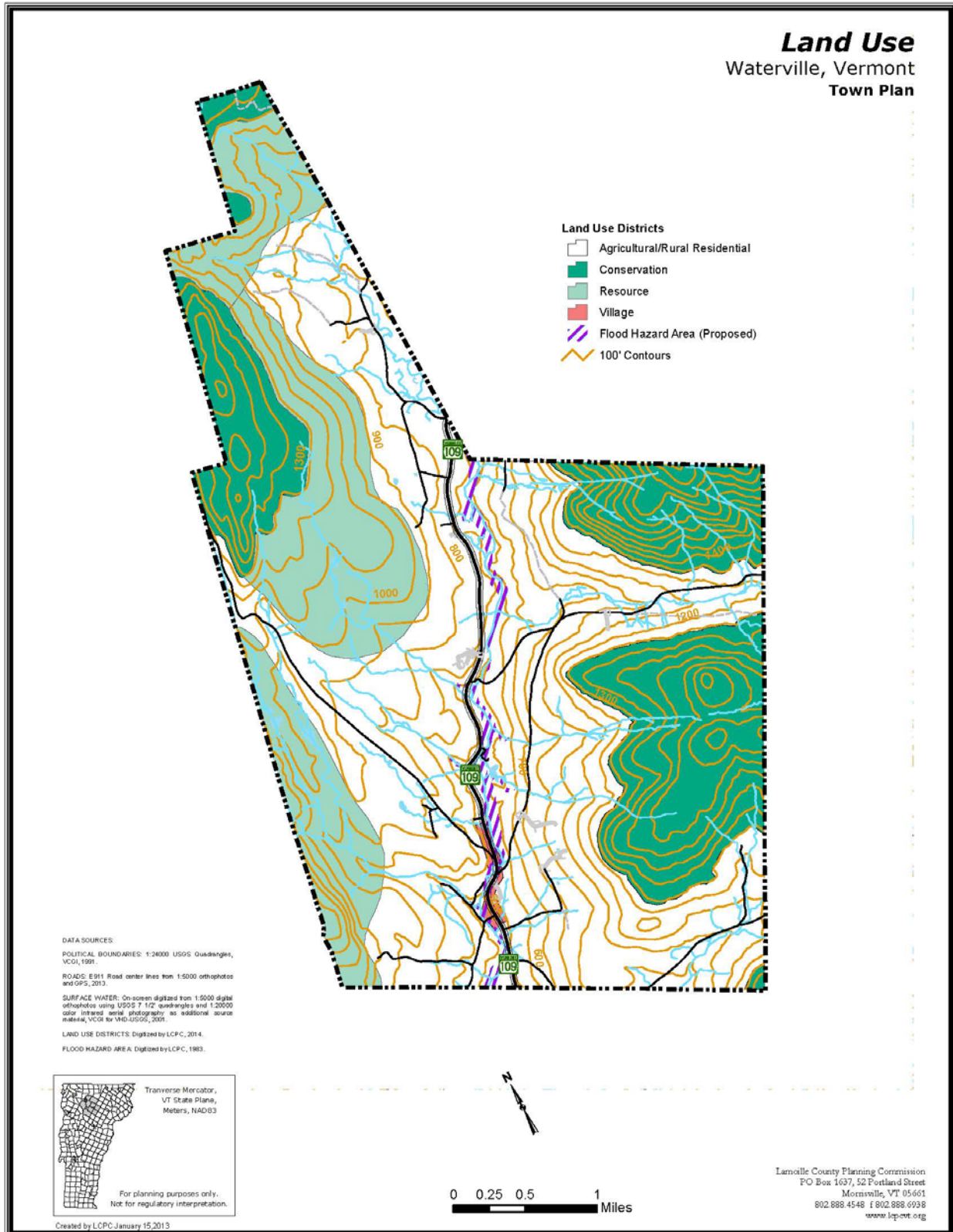
The purpose of the agricultural area is to protect lands with an economic capability for agriculture that are primarily undeveloped except for uses associated with agriculture or forestry. In this area, planned residential developments and land uses that do not remove the potential of the land for agricultural production such as open space, conservation, and certain forms of outdoor recreation are encouraged. Further road development and the extension of public water supply and sewage disposal systems are not planned for this district. Therefore, uses other than low density residential and recreational development that utilize existing facilities, that can adequately dispose of its sewage, and that are compatible with the district purposes and guidelines would be discouraged.

### **Resource Area**

The purpose of a resource area is to protect the natural resource value of lands that are essentially undeveloped, lack direct access to arterial and collector roads, are important for wildlife and wildlife habitat, have high potential for commercial forestry use, are unsuitable for land development, or include irreplaceable, limited, or significant natural, recreational or scenic resources. Suitable wildlife habitat is included in this area for protection. No public sewer and water facilities are planned for these areas and the areas are not suitable for septic potential based on the soils. Due to the limited facilities and services proposed for the district and the critical resources located within it, only certain uses would be supported. These are: low density residential development, limited outdoor recreational uses,

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agriculture, conservation uses, and forestry practices that are compatible with the area purposes and do not require additional facilities and services beyond those planned.



## Land Use Considerations

### Light Industry

Light industry provides employment opportunities in manufacturing, warehousing, research, and development. It enables commercial uses that specifically serve the industries or their employees. Light industry is encouraged. However, Waterville will not be able to provide water supplies, sewage disposal facilities or roads to the site. Light industry must meet the conditions for development for the specific area in which it is located. Light industry considerations may include fumes, noise, and unenclosed storage. Appropriate industries for Waterville can include value-added food production or natural resource processing.

### Accessory Apartments

Accessory apartments are encouraged in all districts in Waterville in order to provide needed income for homeowners and to offer a diverse mix of housing options. While State law defines an accessory apartment as an efficiency or one bedroom apartment, communities are also free to allow larger accessory apartments (for example, two bedroom units) if they so choose. Doing so may increase the supply of rental housing meeting the needs of young families and empty nesters in rural areas.

### Slope

Slope is the amount of vertical rise over a horizontal distance. The percent of slope is determined from the number of feet of vertical rise over 100 feet of horizontal distance. Steep slopes tend to erode once disturbed and present problems in terms of road construction and maintenance. They are, therefore, unsuitable for intense development. The following provides an overview of development appropriate for different slopes:

**0-3% Slope:** Suitable for almost all types of construction, especially larger buildings. Since it is level to nearly level, there may be some drainage problems.

**3-8% Slope:** Suitable for single family homes on small and medium lots, multi-family housing, secondary and minor roads, and smaller commercial and industrial buildings. These slopes provide a minimum of restrictions.

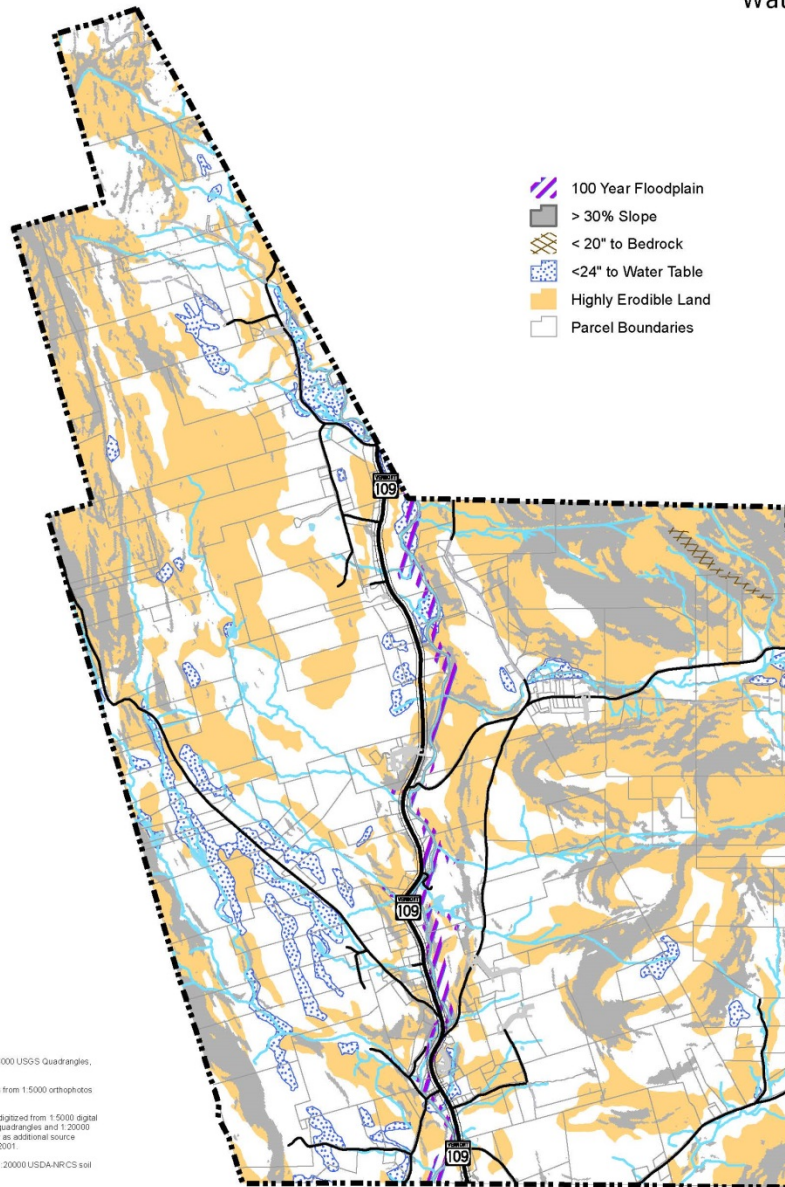
**8-20% Slope:** Suitable for single family homes on large lots, as well as low density, multi-family housing. Where necessary, terracing, retention ponds, retaining walls, and other engineering techniques will be required to prevent runoff and erosion.

**20-30% Slope:** construction becomes very costly on these slopes. In addition, rapid runoff and erosion problems are likely. These slopes are unsuitable for most onsite sewage disposal systems. Therefore, we recommend no on-site sewage on slopes over 20%.

**Over 30% Slope:** All construction should be avoided on these slopes because of the likelihood of environmental damage and high construction costs.

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**Land Limitations**  
 Waterville, Vermont  
 Town Plan



DATA SOURCES:  
 POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.  
 ROADS: Es11 Road center lines from 1:5000 orthophotos and GPS, 2013.  
 SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2 quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for WVD-USGS, 2001.  
 SOILS: Optically scanned from 1:20000 USDA-NRCS soil maps, 1961.  
 SLOPE: Generated from 10 meter digital elevation model (DEM) (USGS 1:2 arc-second NED <http://seamless.usgs.gov/products/3arc.php>), VCGI 2012.  
 PARCELS: Tax maps from Dean Russell, Russell Graphics, August 2008.

Transverse Mercator,  
 VT State Plane,  
 Meters, NAD83

For planning purposes only.  
 Not for regulatory interpretation.



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Created by LCPC January 15, 2013

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Due to mountainous and hilly terrain in Waterville, much of the land area has a slope in excess of 15%. Among areas that are generally steeply sloped, however, lands can be found that are fairly level and suitable for development. Since the most steeply sloped areas are relatively inaccessible, it is expected that little development will occur in these areas in the future.

### **Options for Influencing Land Use and Development in Waterville**

The goals for influencing land use and development in Waterville are to:

- Preserve Waterville’s rural nature.
- Match growth to the Town’s ability to provide services and maintain facilities.
- Prevent the degradation of Natural and Historic Resources.
- Maintain the compatibility of proximate land uses.

### **Non-Regulatory Options**

There are many options for influencing land use in a small town, and not all are regulatory in nature. What follows are some common examples, a few of which already exist in Waterville.

#### **The Waterville Land Trust**

The Waterville Land Trust is a tax-exempt organization created for the purpose of buying and preserving the Town Green. A land trust is an organization that, as all or part of its mission, conserves land by:

1. acquiring land or interests in land — for example conservation easements;
2. assisting property owners, communities, and other organizations to conserve land; and
3. providing long-term stewardship of protected land.

If a particular land use or area in Town is in need of being preserved or protected, a land trust can be an effective tool for acquiring the land or at least removing growth and development pressure. The Town and the Waterville Land Trust could explore the possibility of using the Land Trust in an active and strategic manner to pursue the Town’s land use goals.

#### **Funding for Development**

**Grant funding** in the form of Community Development Block Grants, USDA Rural Development grants, and more can be used to directly develop housing or revolving loan funds for the same. When a Town applies for these grants, it has a certain measure of control over what is developed and where and how. Another option is **tax credits** for certain approved projects undertaken by developers and property owners. Waterville’s **State-Designated Village Center** and **Certified Local Government** status allows access to many grant programs and other funding sources.

There are many other applicable state grant programs. Some programs are available annually, such as the Vermont Clean Energy Development Fund, and others, such as the **Vermont Community Climate**

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**Change Grant Program**, are offered when funding is available. The Climate Change Grant Program was established by the Department of Environmental Conservation to enable Vermont communities to implement measures to improve energy efficiency and reduce Greenhouse Gas emissions. Waterville received one of these grants, which was available up to \$12,000 to Vermont municipalities and non-profit organizations to support community based projects. This grant program was intended to assist with implementation of projects planned or identified by town energy committees and local energy groups. Waterville utilized this grant program for energy retrofits in town buildings.

Also related to issues of energy and efficiency is the **Vermont Clean Energy Development Fund**. The goal of this fund is to increase the development and deployment of cost-effective and environmentally sustainable electric power resources – primarily with respect to renewable energy resources, and the use of combined heat and power technologies - in Vermont. It can be used to fund the development of special projects in municipalities, like “micro-hydro” electrical generation.

**Collaboration with Public and Private Partners**

The Town always has the option of collaborating with developers, nonprofit organizations and others on projects that meet the land use and development goals of all involved. Often connected with the Town’s ability to apply for the types of funding options listed previously, a municipality can join in on housing developments, historic rehabilitation projects, conservation programs, the development of public lands, and more.

**Infrastructure Development**

When a municipality has a goal of attracting development to denser areas of town in order to preserve more rural areas outside, infrastructure is often a much more important factor than regulation. Towns that wish to concentrate growth in more appropriate areas of the community can find success in the development of transportation infrastructure (streets, sidewalks, bike lanes, traffic calming) and water and wastewater management (drainage/stormwater management and septic/sewer solutions). Siting development projects to utilize shared utilities and infrastructure not only decreases building costs but encourages clustered development.

**Purchase of Development Rights (PDR)**

Purchasing agricultural land or forestry development rights ensures land will not be developed by paying the landowner for foregoing the right to develop. Generally, some combination of public and private non-profit entities- a town, a land trust, the Department of Agriculture and/or the Housing and Conservation Board- purchase and hold the rights to develop the land. A conservation easement is then placed on the land restricting the use of the property to farming and compatible activities. The farmer continues to own and manage the land for agriculture or farming. This is a particularly useful tool for family operations as older generations of farmers can continue to earn income from the farm while keeping the costs minimal for new farmers. PDRs are voluntary programs where the property owner enters into a legally binding contract at his or her own free will. The landowner is compensated for any real or perceived loss of value from the land; the assumption is that farmland or forestland is less valuable than that which could be broken into multiple lots or where a large estate could be built.

## **Regulatory Options**

Ultimately, the local and state regulatory environment is a determining factor in locating businesses and residences. To this point, Waterville has not elected to adopt any land use regulations. However, development proposals that exceed specified thresholds are subject to state review under Vermont's land use law, Act 250. Proposals for the installation of various forms of infrastructure, energy generating systems, and telecommunications facilities are also subject to review by the Vermont Public Service Board (PSB), under the Section 248 statute. The Town of Waterville has the opportunity to participate in both Act 250 and Section 248 hearings to advocate for the interests of the town and its residents. The goals and policies set forth in this plan are considerations in both the Act 250 and Section 248 processes. Therefore, it is important for the town to maintain a plan that incorporates specific language, expressing the community's position on how Waterville can grow and develop. As the economy continues to evolve, periodic public input should be collected and reviewed regarding these positions so that Waterville is prepared to accommodate the character and scale of development desired by its residents.

### **Road and Driveway Access Ordinances**

Another regulatory tool is road and driveway access ordinances governing the frequency and density of driveway access or "curb cuts" to town roads. Waterville could exert a degree of control over the amount of development, or at least limit traffic impacts, by developing an ordinance that limits and guides the ability of new driveways to access major town roads.

### **Flood Hazard Regulations**

Waterville has 1% (also referred to as 100-year flood plains) flood plains along the North Branch of the Lamoille River. Without flood hazard regulations, flood damage within these areas, or anywhere in town, would not be covered by insurance. In order for Waterville residents to access flood insurance, the municipality must enroll in the National Flood Insurance Program (NFIP). To enroll in NFIP, the town would have to adopt flood hazard area regulations (FHRs). FHRs heavily regulate and protect development in FEMA-designated flood hazard areas in a community. The regulations would essentially enforce the policies for the Flood Hazard Area described in this section of the Plan. Conversely, flood hazard areas are normally ideal as open space, outdoor public gathering spaces, or recreational facilities. The Waterville Selectboard has considered this option.

### **Subdivision Regulations**

Waterville does not have subdivision regulations as of the writing of this plan. Subdivision regulations control the pattern and manner in which land is divided. Whenever a large lot is broken into smaller lots, subdivision regulations are the tool for towns to ensure that the shape, size, and location of the lots and the nature of the topography and geology within accommodate the community's land use goals. These regulations also ensure that the design of a lot is compatible with infrastructure and services such as roads, utilities and emergency response.

There are four provisions required in State statute for subdivision bylaws:

1. Procedures and requirements for design, submission, and processing of plats (maps of the new lots);

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2. Standards for the design and layout of all public facilities;
3. Standards for the design and configuration of parcels or lots; and
4. Standards for the protection of natural and cultural resources and open space.

In addition to these provisions, a town must allocate the resources for the administration of the regulations, including the hiring of an administrative officer.

This tool should be considered as a way to prevent the excessive fragmentation of rural areas, open space, and forest land in town. Subdivision regulations can also be used to avoid many of the impediments that growth and development can represent to a small town's ability to provide municipal services.

### **Zoning Regulations**

Waterville does not have zoning. Zoning is used to regulate the location, type, and density of development within a community through the delineation of one or more zones or zoning districts, as depicted on a zoning map. Zoning is an involved and multi-faceted process that allows for the most control of growth and development of any regulatory option. Other than limiting development by use, zoning can also set specific performance impacts separate from use, such as amount of noise or traffic generated. Zoning can also include design review guidelines that can be used to preserve the historic nature of buildings in an area.

Like subdivision regulations, zoning includes an administrative component that would require the allocation of Town resources. If the community did pursue the zoning option, it would also need to include subdivision regulations.

### **Act 250 and Section 248 Statewide Regulation**

Development proposals that exceed specified thresholds are subject to state review under Vermont's land use law, Act 250. Under Section 248 of the Vermont State Statutes, the Vermont Public Service Department, through the Public Service Board, regulates energy generation siting and telecommunications facilities. Both Act 250 and Section 248 proceedings recognize and consider what is contained in a municipal plan.

In Act 250 proceedings, a District Environmental Commission reviews the compatibility of certain types of subdivisions and development with 10 statutory criteria. The criteria are that the development:

1. Will not result in undue water or air pollution.
2. Has sufficient water available for the needs of the subdivision or development.
3. Will not unreasonably burden any existing water supply.
4. Will not cause unreasonable soil erosion or affect the capacity of the land to hold water.
5. Will not cause unreasonably dangerous or congested conditions with respect to highways or other means of transportation.
6. Will not create an unreasonable burden on the educational facilities of the municipality.
7. Will not create an unreasonable burden on the municipality in providing governmental services.

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8. Will not have an undue adverse effect on aesthetics, scenic beauty, historic sites or natural areas, as well as wildlife habitat or endangered species in the immediate area.
9. Conforms with the Capability and Development Plan.<sup>12</sup>
10. Is in conformance with any local or regional plan or capital facilities program.

In Section 248 proceedings, before the Public Service Board issues a Certificate of Public Good (effectively approving a project), it shall find that the purchase, investment or construction<sup>13</sup>:

1. Will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality;
2. Is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost effective manner through energy conservation programs and measures and energy-efficiency and load management measures;
3. Will not adversely affect system stability and reliability;
4. Will result in an economic benefit to the state and its residents;
5. With respect to an in-state facility, will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment and the public health and safety, with due consideration having been given to specific criteria;
6. With respect to purchases, investments, or construction by a company, is consistent with the principles for resource selection expressed in that company's approved least cost integrated plan;
7. Except as to a natural gas facility that is not part of or incidental to an electric generating facility, is in compliance with an approved electric energy plan;
8. Does not involve a facility affecting or located on any segment of the waters of the state that has been designated as outstanding resource waters by the water resources board;
9. With respect to a waste to energy facility, is included in a solid waste management plan adopted pursuant to 24 Vermont Statutes Annotated § 2202a, which is consistent with the state solid waste management plan; and
10. Except as to a natural gas facility that is not part of or incidental to an electric generating facility, can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers.

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<sup>12</sup> Includes (A) the impact the project will have on the growth of the town or region; (B) primary agricultural soils; (C) productive forest soils; (D) earth resources; (E) extraction of earth resources; (F) energy conservation; (G) private utility services; (H) costs of scattered developments; (J) public utility services; (K) development affecting public investments; and (L) rural growth areas.

<sup>13</sup> For current, detailed information and explanation on the criteria for energy siting projects, visit the Public Service Board website, <http://psb.vermont.gov>.

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In light of these criteria, Act 250 could be considered a comprehensive de facto form of growth and development regulation for Waterville. In communities without zoning, like Waterville, Act 250 jurisdiction is limited to, and triggered by, certain thresholds in Waterville, including:

1. The construction of improvements for a commercial, industrial, or residential use above the elevation of 2,500 feet;
2. The construction of improvements for any commercial or industrial purpose on more than one acre of land;
3. The construction of 10 or more housing units within a radius of 5 miles, or the construction or maintenance of mobile homes or trailer parks with 10 or more units; and
4. The subdivision of land into 6 or more lots of any size within a continuous period of five years.

Under Act 250 Criteria 10 and Section 248 Criteria 1, the Waterville Town Plan has a regulatory role. The Waterville Planning Board should review all Act 250 and Section 248 applications for their compliance with this municipal plan. Where the application is determined to not conform to this chapter or any goal or policy, the Planning Board should participate in the Act 250 and Section 248 processes in order to ensure the concerns of the town are addressed. For Section 248 projects, this plan does not allow commercial energy projects above 1,300 feet in elevation.

If a project is subject to Act 250 Review, the District Commission should not find a development out of conformance with the Town Plan simply because it contains housing types or densities that differ from surrounding neighborhoods. The District Commission should not impose conditions to meet other Act 250 review criteria that result in increased housing costs.

## **Chapter 11. Implementation and Adjacent Regions**

### **Implementation of the Plan**

The implementation of the municipal plan is often more important than the plan itself. If the stated objectives of the plan are never acted upon, then the plan has no more value than the paper it is printed on. At the beginning of each chapter, there is a list of policies and recommendations. This municipal plan will be implemented through those policies and recommended action items. In order to implement the Plan, participation from the Planning Board, Selectboard, and Waterville residents will be vital. Unless otherwise noted, the Planning Board will be the lead organization to oversee implementation. The plan has identified action items to guide the town's decision-making over the next five years.

There are several ways that a town can implement a town plan. A few of these include:

- Action by citizens' groups
- Capital budgeting
- Education and outreach
- Zoning and subdivision regulations
- Impact fees
- A program to purchase development rights
- Tax policies
- Individual projects and studies
- Other ordinances such as road policies

Waterville currently focuses on many non-regulatory implementation options. This plan has called for:

- ✓ studies of important issues,
- ✓ the pursuit of funding and other resources,
- ✓ organizational partnerships,
- ✓ and the exploration of potential new Town policies and rules.

### **Selectboard and Planning Board Roles**

There are two local entities in the Town of Waterville with primary roles in the implementation of this plan overall: the Selectboard and the Planning Board. Each board has duties subscribed to it by State law in 24 Vermont Statutes Annotated Chapter 117. The statutory text may be revised from time to time, but the basic roles remain:

The **Selectboard** executes the legislative functions of the Town of Waterville, including final adoption of the Town Plan, capital budget or any regulations drafted by the Planning Board. The Selectboard may also put these tools to a full town vote. The Selectboard also appoints the members of the Planning Board and other local boards.

The **Planning Board** is charged with drafting and revising the Town Plan and possible land use rules, including zoning and subdivision regulations, if deemed necessary by the Town. This is considered a "quasi-legislative" role. Once the Planning Board has approved its work in drafting plans and

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regulations, they are submitted to the Selectboard for final adoption. The Planning Board can also pursue its own non-regulatory initiatives and activities, such as applying for village center designation or planning grants or drafting a capital budget, with the cooperation of the Selectboard. Most recommendations of this Plan present the Planning Board with activities in its non-regulatory roles.

### **Implementation of this Plan**

Each of the chapters in this Town Plan establishes a set of recommendations to accomplish the goals and objectives. There is no way each and every task can be completed; however, the Planning Board and the Selectboard will strive to tackle the issues as funding and resources become available between now and the next Plan amendment.

Implementation can take place in big and small steps. Some steps will take significant time and resources, such as exploring flood hazard regulations. Other steps, such as conducting energy audits or providing educational resources to community members, are smaller and can be achieved quickly.

### **How this Plan Relates to the Region and Adjacent Municipalities**

#### **Adjacent Towns**

The Town of Waterville is surrounded by five other towns, Belvidere, Johnson, Cambridge, Fletcher and Bakersfield. Route 109 represents a corridor connecting Waterville to Cambridge on the south and Belvidere on the north. Other town roads also connect these three towns. Town roads are the only connection between Waterville and Johnson and Bakersfield. Waterville has limited transportation connection to Fletcher.

Waterville is also connected to these other towns via mountains, rivers, woods, air, and other natural and wildlife resources. In fact, it is forests and mountains that connect Bakersfield and Fletcher with Waterville. Land uses in Bakersfield and Fletcher are compatible with the land uses identified in Waterville's plan. Severe development constraints, such as slope, make development in Bakersfield nearly impossible. Future land uses for these two towns are identified as either Conservation & Forest Resource Lands or Rural Residential. This provides an opportunity for collaboration between the three communities to protect the abundant natural resources.

Waterville relies on Cambridge and Johnson for employment, public safety and emergency response, civic opportunities, and cultural enjoyment. Land uses are compatible and the communities are in contact about current and future issues. The connections between these three communities are strong. Waterville is aware it must monitor the development and growth trends of Cambridge and Johnson in order to maintain the goals established in this plan. Belvidere and Waterville share school resources and again have similar future land use proposals. There is minimal development pressure coming from Belvidere.

It is the opinion of the Waterville Planning Board that this plan and its policies and recommendations do not conflict with the plans or regulations of the surrounding towns. This plan recognizes the

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transportation corridor connecting Waterville to the north and south and recommends moderate development along this connection, where appropriate. This plan advocates the preservation of rural working landscape along other transportation connections to other towns, e.g. town roads. This plan also advocates for the preservation of natural landscape, open land, and ecosystem functions in the areas where towns are connected by natural areas.

**Regionally**

Waterville borders another region – Franklin County (which, along with Grand Isle County, makes up the Northwest Vermont Region). Growth and development in this region may not likely have an impact on future land use in Waterville given the topographical constraints.

The *Lamoille County Regional Plan (2006-14)*, drafted and adopted by the Lamoille County Planning Commission is based on the principle of local control. Future compatibility with regional planning efforts will be assured through the work of the Waterville Planning Board.

The Regional Plan is guided by three overall objectives: (1) to guide growth into compact settlements; (2) to encourage compact development and protect the working landscapes; and (3) to protect the region's natural systems and valuable agricultural and silvicultural resources. These regional objectives are compatible with the Land Use Areas defined earlier in this Plan

The 2014 *Town Plan for Waterville* is not in direct conflict with the regional plan and will not have a negative effect on any future implementation of the regional plan. The Waterville Planning Board is willing to work with the Lamoille County Planning Commission to address any concerns they may have. There are opportunities for Waterville and the Lamoille County Planning Commission to work together to achieve the goals identified in each plan, such as housing affordability and renewable energy.