

# Sharon Town Plan

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Sharon Selectboard

*Written with assistance from the Two Rivers-Ottawaquechee Regional Commission funded by a Municipal Planning Grant from the Department of Housing and Community Development.*

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## **I. Shaping Sharon’s Future (Part One)**

### **A. The Need for Town Planning**

The community of Sharon has undergone a significant economic and social transformation since Interstate 89 was completed in the 1960s. Like other communities in the Upper Valley, it has moved away from its traditional base of agriculture and forestry and has become a “bedroom community” with the majority of its residents working in the Hartford/Hanover/Lebanon area. In addition to the influence of the Interstate highway, this transformation has been fueled by rapid population increases in the Upper Valley. People employed in Sharon work in service industries and home-based businesses.

During the second half of the 20th century, Sharon experienced the fastest population growth of any town in the region, tripling its size from 470 residents to 1,411. In the decade 1980 to 1990, population increased from 828 to 1,211, a growth rate of 46.3%. From 1990 to 2000, population increased by 200, a 16.5% increase, and the fourth highest growth rate in the region. Eighty-five new housing units were created during that decade, an increase of 14.7%. While population growth has slowed throughout the region, between 2000 and 2010 Sharon experienced a population increase. Sharon continues to experience growth pressures from outside its borders.

To effect change in a positive way, planning in Sharon needs to be coordinated and compatible with its neighbors and in accord with Vermont’s Act 250. Vermont’s Act 250 is not intended to insure a specific pattern of development, but only to evaluate projects on a case-by-case basis. Decisions under the Act 250 process are made without consideration of the cumulative effects of successive projects. It is therefore the responsibility of the town to formulate its own land use goals and patterns. Criterion 8 of Act 250 requires that a proposed development not have an “undue adverse effect on the scenic or natural beauty of an area, aesthetics, historic sites, or rare or irreplaceable natural areas.” However, this criterion is open to widely varying and highly subjective interpretations.

### **B. Purpose of the Sharon Town Plan**

The purpose of the Sharon Town Plan is to give guidance to the residents of Sharon, as well as to the Town’s elected and appointed officials, on the future growth of the town. It was agreed at the outset of drafting this Plan that statements of goals and policies for guiding future growth in Sharon must come from the wishes and needs expressed by the residents of Sharon. Our hope is that a town plan with a citizen-defined set of goals and policies will help inspire change that will benefit the Town and reduce conflicts that may arise in connection with future growth and development.

Specifically, the Sharon Town Plan is a comprehensive analysis of Sharon’s residents, jobs, economy, schools, roads, housing, natural resources, and land use. By analyzing the trends that exist with respect to these characteristics, the Plan can help the community make informed choices in directing the patterns of its future growth. This document was drafted by the Sharon Planning Commission in cooperation with the Two Rivers-Ottawquechee Regional Commission, the Sharon Selectboard, and citizens of the Town.

## **C. History of Sharon**

The Town of Sharon was chartered by New Hampshire's Governor Benning Wentworth to John Taylor and 62 associates on August 17, 1761. The Charter specified setting aside several lots, one for the Church of England, one for the Society for the Propagation of the Gospel in Foreign Parts, one for the first settled minister in the town, and one for the benefit of a school. Also set aside was a 500-acre lot in the northwest corner for the benefit of Governor Wentworth himself. According to the Charter, the town consisted of 22,000 acres and was 34.8 square miles in size.

The history of land use in the Town of Sharon parallels that of Vermont as a whole. The first settlers found the virgin forest and wilderness a major impediment in their desire to establish small farms and manufacturing establishments. By the beginning of the 19th century, farms covered the town everywhere except in the village and hamlets, and on the steepest hillsides in this stretch of the White River. There were mills and other manufacturing activities, but agriculture was the main occupation. In the 1840s, sheep become the dominant domestic animal, the land was mostly clear of trees, and open meadowland could be seen everywhere.

Late in the 19th century, the dairy cow became the dominant farm animal, and dairying the dominant activity. This trend continued well into the 20th century. Today there are a few diversified farms in Sharon, with many of the early farms having become overgrown with brush and trees or used for other purposes.

## **D. History of Planning in Sharon**

Vermont law authorizes its towns to prepare and adopt a town plan, although these plans are not mandatory. Sharon made the decision to engage in a process by starting a planning program in 1972. At that time, the Sharon Selectboard appointed a Planning Commission. One of their first tasks was to prepare subdivision regulations that were approved by the Sharon Selectboard in 1973 and updated in 2008.

In 1976, Sharon adopted its first Town Plan. It was prepared by the Planning Commission and adopted by the Sharon Selectboard following public meetings and hearings. Under Vermont law, municipal plans are effective for a period of five years from date of adoption unless readopted or extended. Because of this provision, Sharon periodically updates the Sharon Town Plan.

It is important to remember that the Sharon Town Plan is a guidance document intended to represent the public interest. The nature of growth and change may require this Plan to be re-evaluated as necessary or appropriate. While the Planning Commission is legally responsible for preparation of the Plan for Sharon as well as public meetings and hearings related to it, any individual or organization may request that the Plan be modified or amended.



## **E. Process of Updating the Town Plan**

The Town received a Municipal Planning grant from the state in 2014 to update this Town Plan. Subsequently, the Planning Commission met with staff of the Two Rivers-Ottauquechee Regional Commission to discuss changes to the Plan. The Sharon Planning Commission collected input from various committees and commissions in Town and drafted the Plan. A hearing was held in February 2015, and the Plan was sent to the Selectboard for their hearing. The final version of this Plan was adopted by the Sharon Selectboard on April 6, 2015.

## II. Demographics

### A. Population Patterns

Population patterns represent an important element in the overall development of Sharon. Rapid and unanticipated population increases can create a demand for new and expanded municipal services, and may strain the financial ability of a town to provide public services. This is especially true in instances where new residents are of public school age and the public schools are at or near capacity. Through planning for population change, the services and facilities that a growing population will demand can be delivered more efficiently and equitably.

Below are population statistics for the Town of Sharon taken from the U.S. Census Bureau. Sharon's population in the year 2010 was 1,502, compared to a population of 1,411 in 2000. This was an increase of 6.4%, a rate that far outstrips the growth in other towns in Windsor County. Unlike many of Sharon's neighbors, Sharon's population has exceeded its historic peak of 1830. Between 2000 and 2010, Windsor County's population growth rate declined by -1.3%. Sharon's growth rate is more than twice the State of Vermont's as a whole (2.8%). Rather than unusual rates of birth or death, the primary factor influencing such sustained, robust population growth in comparison with other towns in the region and state has been an influx of new residents moving into Sharon, many of them attracted by Sharon's school choice and

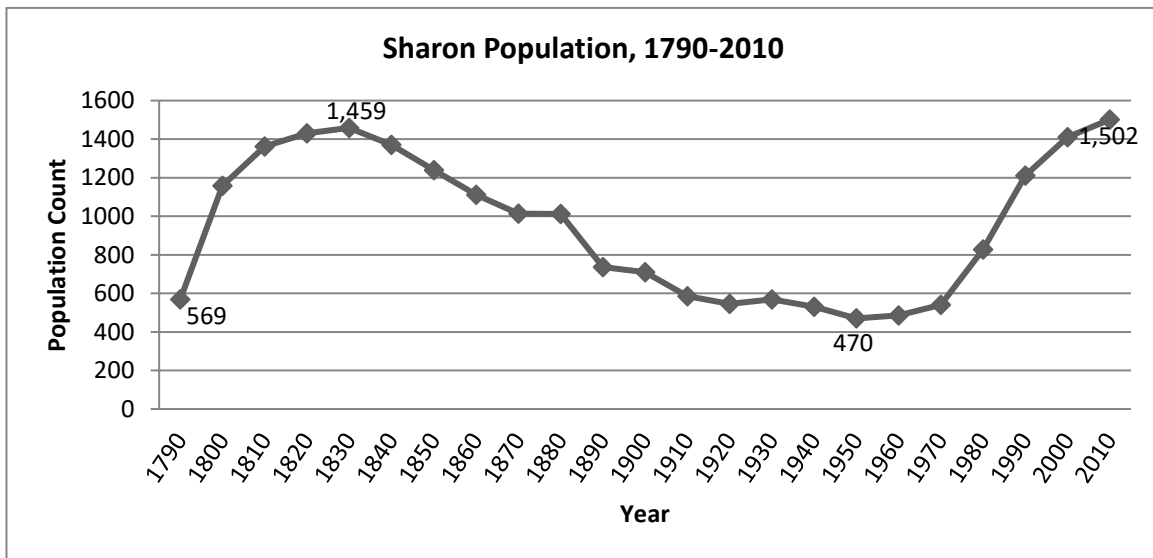


Figure 1: Sharon Population 1790-2010 (Source: US Census, 2010)

proximity to centers of employment.

Because of migration, defined as people moving into and out of Sharon, the demographic profile of the Town's population has changed. As indicated in Figure 3 below, there has been a marked increase in individuals aged 45 and over along with a decline in school aged children younger than 14 years. The number of residents aged 55 to 59 years old has increased nearly threefold, from 68 individuals in 2000 to 165 individuals in 2010. All told, nearly 20% of Sharon's population is comprised of individuals 60 years of age or older. The increase in the over 60 age group has been seen throughout Vermont, which ranks

second in the nation for percentage of retirement-aged residents. In contrast, Sharon has also seen the number of teenagers and young adults aged 15 to 24 years old increase by nearly 37% in the decade from

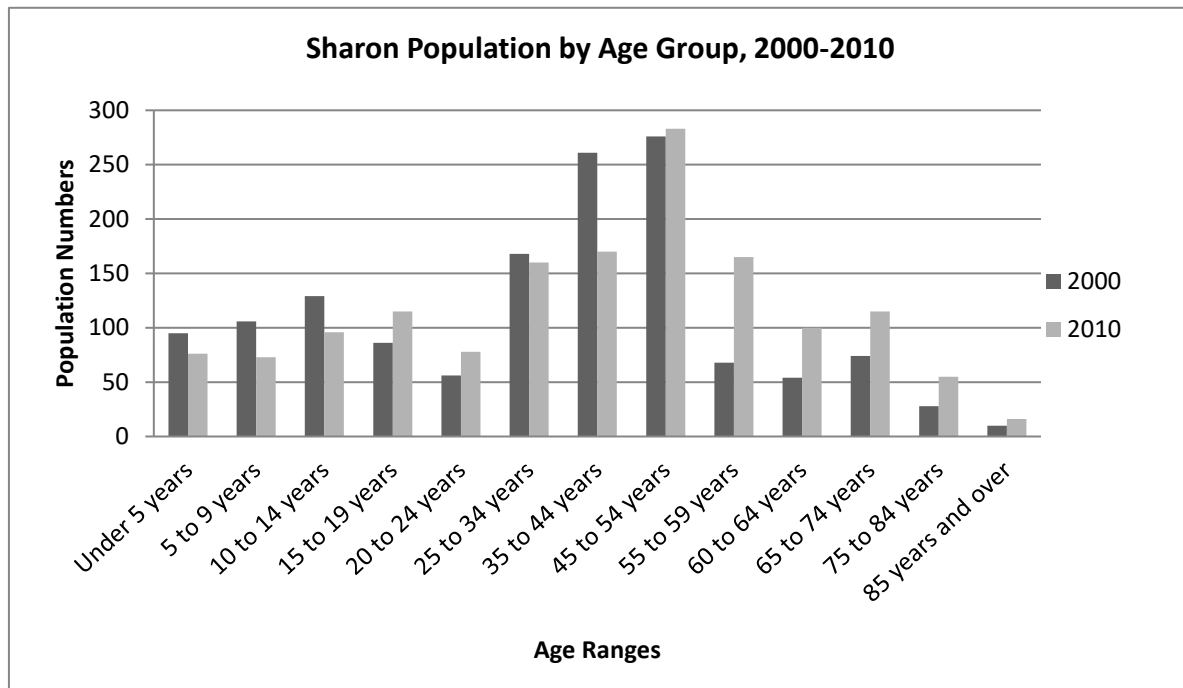


Figure 2: Sharon Population by Age Group, 2000-2010  
(Source: US Census, 2010)

2000 to 2010.

## B. Income of Population

The State of Vermont taxes residents on their income, while Town taxes are based on property ownership. While the Town is not empowered to tax income directly, it is important to note the income of Sharon's taxpayers to understand the Town's taxing capacity. The Vermont Department of Taxes annually

Year	Sharon Population	Population Change	Sharon Pop. % Change	Countywide Population	Population Change	County Pop. % Change
1990	1211	0	0	54055	0	0
2000	1,411	200	16.5%	57418	3363	6.2%
2010	1,502	91	6.4%	56670	-748	-1.3%
2020	1628	126	8.4%	59057	2387	4.2%
2030	1740	111	6.8%	60328	1271	2.2%

Figure 3: Population Projections for Sharon, 1990-2030  
(Source: US Census and VT Department of Independent Living)

publishes the report *Vermont Tax Statistics* that includes a summary of personal income tax returns filed with the State. In 2012, 715 personal income tax returns were filed by Sharon residents, and 1,336 exemptions were claimed. Total adjusted personal income reported for Sharon residents was nearly \$41 million. Sharon had a personal income profile that was very similar to that of Vermont, as shown in

Figure 4. One difference of note was that there were more Sharon returns being filed for incomes between \$60,000 and \$74,999 than in the State on average. Sharon had 10.9% returns that claimed incomes of \$60,000-\$74,999, while the State average was 8%.

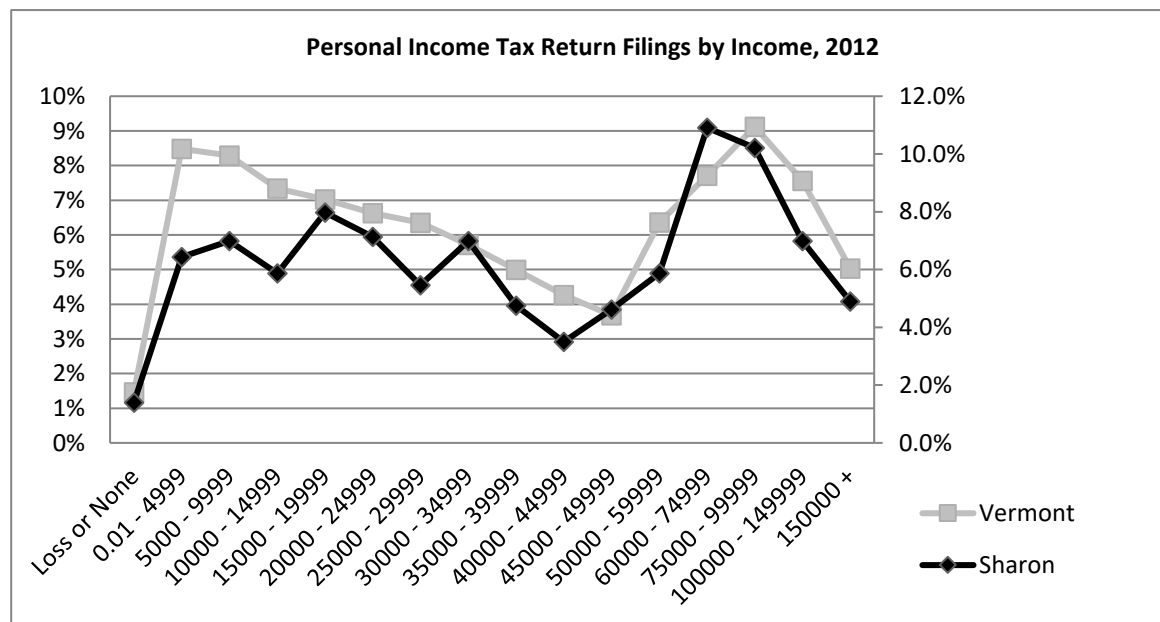


Figure 4: Personal Income Tax Return Filings by Income, 2012  
(Source: Vermont Department of Taxes)

### III. Economy

#### A. Economy and Jobs

Population, employment, and housing trends are factors that are inter-related when planning for the future. This section outlines general employment characteristics of Sharon residents and how development of jobs in the Upper Valley could impact housing and population growth in Sharon.

Labor Statistics, Town of Sharon (2008-2013)				
Year	Labor Force	Employed	Unemployed	Unemployment Rate
2008	870	850	20	2.60%
2009	890	840	40	5.00%
2010	980	930	50	4.70%
2011	970	930	30	3.50%
2012	950	920	30	2.70%
2013	920	890	30	2.80%

Figure 5 - Labor Statistics, Town of Sharon (2008-2013)  
Source: VT. Dept. of Labor

#### Employment Patterns

Sharon is not a self-sufficient employment center as it was years ago. The advance of the automobiles, technological age of computers, telecommunications and other conveniences has brought Sharon's once independent community into the world economy. Sharon typifies a bedroom community in that a vast majority of its labor force is employed outside of the Town, primarily in the Upper Valley. The number of Sharon residents in the labor force has decreased annually since 2010. The unemployment rate in Sharon has nearly returned to the pre-recession rate of 2008. In 2013, Sharon's unemployment

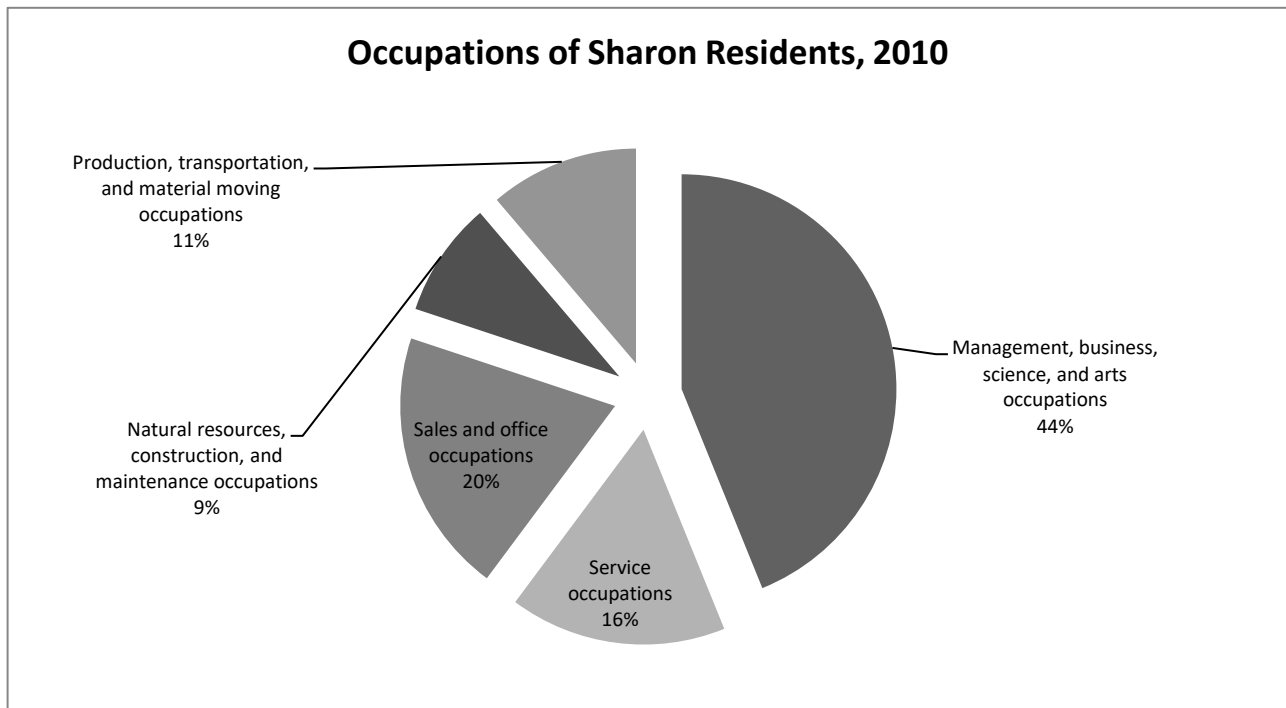


Figure 6: Occupations of Sharon Residents, 2010  
Source: US Census, 2010

rate of 2.7% was lower than either Windsor County (4.0%) or Vermont (4.4%). This is due in great part to Sharon's proximity to the Upper Valley and its sizeable employment base.

## Occupations

Between 2000 and 2010, the number of workers aged sixteen and over who lived in Sharon grew by 19%, from 780 to 930. The occupations of Sharon's residents continued the trend of the 1990s and 2000s, moving away from agricultural and forestry occupations.

## Employment Sector

As is indicated in Figure 6, the private employment sector is the largest employer for Sharon residents and the region. Sharon has a slightly larger percentage of residents who are self-employed than does the region.

The number of workers employed by local businesses has been decreasing over the past decade. Sharon is a net exporter of jobs, with less than a quarter (24%) of those who are employed actually working in town. While the number of establishments in Sharon is consistent with communities of similar size, these businesses employ roughly five people per establishment.



Figure 7 - Occupation by Sector, Sharon & Windsor County  
Source: US Census, 2010

## B. Locations of Economic Activity

Sharon has never served as a center for commercial/industrial activity for Windsor County or the greater Upper Valley Area. Many small businesses and home enterprises are scattered throughout the community, but most of the job opportunities are located outside the town. Vermont Routes 14 and I-89 serve as Sharon's primary transportation routes to economic centers. Sharon Village is the primary location for retail and service businesses, with additional small (non-retail) commercial enterprises located along Route 14 north of the Village. A lack of sewer and water service somewhat limits the types of businesses that can locate in town, particularly in the village.

The 41.5 acre Sharon Commerce Park, created in 1975 and formerly known as the Industrial Park, is located off River Road adjacent to I-89. Approximately five commercial companies are presently located in the Park. Because of the impact of heavy truck travel, the town passed an amendment to the Town Plan in 2000 that

limits future use of the remaining land to commercial or light industrial companies that are not truck-dependent. In 2012, a commercial solar generating facility was built in Commerce Park.

Local Establishments and Employees			
	Number of Local Establishments	Employed by Local Establishments	% of all Employed in Sharon
2008	40	256	30%
2009	37	238	28%
2010	36	246	26%
2011	40	233	25%
2012	39	235	26%
2013	37	214	24%

Figure 8 - Local Establishments and Employees, 2008-2013

Source: VT Dept. of Labor

## C. Commuting to Work

According to the 2010 Census, the percentage of people driving to work alone was slightly higher in Sharon (79%) than in Windsor County (76%) or the state (74%). Sharon workers also had longer commuting times, with a mean travel-time of 26 minutes as compared to the County and State (22 minutes).

Census data show that 4% of workers in Sharon worked at home compared with 7.1% statewide. Women in Sharon account for 53% of the workforce, a larger percentage than throughout the State (49%), according to the American Community Survey (2009-2012).

Commute Time	Estimate
Less than 10 mins	7.8%
10 to 14 mins	4.8%
15 to 19 mins	3.4%
20 to 24 mins	33.6%
25 to 29 mins	16.5%
30 to 34 mins	14.3%
35 to 44 mins	8.6%
45 to 59 mins	8.3%
60 or more mins	2.7%
<i>Mean travel time to work</i>	<i>25.9 mins</i>

Figure 9 - Sharon Commute to Work Time

Source: American Community Survey 2009-2012

## D. Working Families and Childcare

Child care is an integral piece of Vermont's economic infrastructure and should be afforded the same level of fiscal commitment as public education, transportation and housing. With 22% of the population of Sharon of childbearing age (Age 25-44) and 96% of the workforce working outside the home (Census 2010), it is important to assure that high quality, convenient childcare is available within the town for working families with children. State data indicate that the most critical demands for child care infrastructure are the shortages in infant/toddler care, school age care, care for children with special needs, and care during non-traditional hours. Current childcare programs in Sharon fulfill some of the need for after-school and pre-school day care, but there remains a strong need for full-day (7 a.m. to 6 p.m.), year-round childcare programs for children of all ages, preferably located close to the village.

According to the Vermont Department for Children and Families, the overall capacity in regulated child care can meet only 50% - 60% of the estimated need in Vermont. Eighty percent of Vermont women with children under the age of six years are in the out-of-home workforce and up to 87% of Vermont women with school-age children work outside of the home. Presently in Sharon, childcare services are provided by the Sharon Afterschool Program, a licensed program with room for twenty children, and Sharon Elementary Preschool, a one-day/two-hour program serving twenty children aged four and five. Given that a majority of Sharon’s residents work outside of Sharon, it is likely that many residents with children seek childcare services in other communities such as Hartford or Norwich.

## E. Future Economic Development

Future economic development in Sharon can have a significant impact on the community. Coordinated land use and economic development are encouraged between the community and regional development organizations. Measures to accommodate growth equitably and to mitigate negative impacts must be coordinated.

To encourage continued economic growth, small communities like Sharon must take advantage of local resources, such as their location, physical setting, and citizens. Sharon is fortunate to have close access to Vermont's interstate highway system as well as the railroad. In order to further growth, the community must determine how to leverage the town’s assets.

Sharon strives to have its local economy grow at a pace that benefits the community, without straining municipal services. To encourage new growth and to improve the vitality of the Village Center Area, Sharon has been part of the Vermont Downtown Program's Village Center Designation. Businesses within the Area identified by the Vermont Downtown Program as a Village Center are eligible for various tax credits, and the town is given priority for specific state and federal grant programs (see sidebar).

While there may be some opportunities for infill development within the Village Center Area, its geography makes continued growth a challenge. It is “sandwiched” between Interstate 89, the White River and its Flood Hazard Area, and steep hillsides which limit

### Village Designation Benefits

Because of its participation in the Vermont Village Designation Program, Sharon’s Village has the following benefits available:

- 10% Historic Tax Credits - Available as an add-on to approved Federal Historic Tax Credit projects. Eligible costs include interior and exterior improvements, code compliance, plumbing and electrical upgrades.
- 25% Facade Improvement Tax Credits - Eligible facade work up to \$25,000.
- 50% Code Improvement Tax Credits - Available for up to \$50,000 each for elevators and sprinkler systems and \$12,000 for lifts. Eligible code work includes ADA modifications, electrical or plumbing up to \$25,000.
- Priority Consideration for HUD, CDBG and Municipal Planning Grants
- Priority consideration for Municipal Planning Grants and funding from Vermont’s Community Development Program.
- Priority Consideration by State Building and General Services (BGS)
- Priority site consideration by the State Building and General Services (BGS) when leasing or constructing buildings.



areas for expanded growth.

To encourage additional commercial development that will not negatively impact the Village Center Area, the town has created the Small-Enterprise Area north of the Village. This Small-Enterprise Area has a mix of uses (including non-retail commercial development) and is compact enough to avoid strip development or urban sprawl. This area is identified in the Land Use chapter of this Plan.

Economic development cannot be driven by municipal government alone. Only through consensus can the town form a coordinated economic development effort. This is, of course, where the citizens of Sharon have the most to offer. Key figures in the community, including small business owners, representatives of town government, and realtors can join forces with active citizens to help create a vision for the economic future of Sharon. Because economic development takes time, all who participate in the process must be committed to a common vision of what the town wants to be. In order to begin the process of economic development planning, citizens will have to determine what and who the town's assets are. Likewise, it will need to identify what the key needs in town are and whether or not they can be realistically offered locally. Using this information, the town should develop a mission statement to guide those involved toward the ultimate goal of encouraging economic development in Sharon.

A 2012 study by the Urban Land Institute indicated that on a national level, businesses are making their location decisions based substantially on sense of place. Likewise, young adults have indicated that their primary motivation for moving to Vermont is the lifestyle associated with the working landscape. A small community's best method of encouraging new business is to recognize, protect and support its best assets. It is Sharon's rural, natural, and historic resources that are its greatest assets as such, they should be prudently managed.

## **F. Goals, Policies and Recommendations**

### **Goals**

1. To encourage in Sharon the economic development of light manufacturing, professional services, specialty agricultural, and forest-related businesses.
2. To encourage Sharon's participation in a strong and diverse regional economy that provides satisfying and rewarding employment opportunities for residents while maintaining environmental standards.
3. To encourage the continued development of small-scale enterprises in Sharon Village, the Commerce Park, and in the Small Enterprise Area along Route 14 north of the Village.
4. To encourage the development of and access to broadband technology for the entire Town.
5. To optimize economic development in Sharon so that it contributes positively to the town's vitality.

### **Policies**

1. It is the policy of the Town of Sharon to encourage new business development in locations where services such as roads, fire protection, power, and high speed internet access are available or planned.

2. It is the policy of the Town of Sharon to support the development of local enterprises that create markets for locally produced goods and services.
3. It is the policy of the Town of Sharon to cooperate with neighboring towns, regional planning commissions, and economic development groups, to plan for and maintain a balance between the type and number of jobs created and natural population growth in the region.
4. It is in the interest of the Town of Sharon to make all possible effort to encourage and support the creation of additional childcare facilities that meet the diverse work requirements of its working population.
5. Large commercial developments must be carefully reviewed to ensure that they do not put an undue burden on the town's ability to provide services.
6. It is the policy of the Town of Sharon to maintain its participation in the Vermont Village Designation Program.
7. Strip development is not an appropriate pattern of land use in Sharon.
8. Support the Sharon Farmers' Market and/or other opportunities for Sharon residents to display and sell their products or wares.

### **Recommendations**

1. To partner with regional economic development groups to encourage and promote businesses in Sharon.
2. To explore the development of a revolving loan fund to help encourage small-scale economic development in the Town of Sharon.
3. The town should create a comprehensive economic development plan to help guide growth and improve the local economy.

## IV. Housing

### A. Introduction

A major function of local planning is to meet two community housing objectives – first, to provide safe and affordable housing for present and future residents; and second, to encourage suitable density and to guide distribution of housing throughout the town. Growth in housing affects the Town's capacity to provide services. Since property taxes paid on residences do not cover the full costs of providing services to year-round residents, residential development must be done thoughtfully.

This section discusses the amount, type, location, and affordability of existing housing and the needs for future housing. Other sections of this Plan also include information on housing. The data presented in this section were extracted from two sources - U.S. Census and the American Community Survey. Data collected from these sources does not always match exactly due to variations in record-keeping and classifications; however, they are considered relevant and reliable data sets for analysis.

### B. Number of Housing Units

In 1990 there were 578 housing units in Sharon; by 2000, there were 663, an increase of 14.7%, which exceeded the regional and statewide growth rates. As of 2010, there were a total of 735 housing units, which was an overall increase of 10.9% over the 2000 census. This growth is higher than Windsor County or the State of Vermont (7.9% and 9.6% respectively) for the decade between 2000-2010.

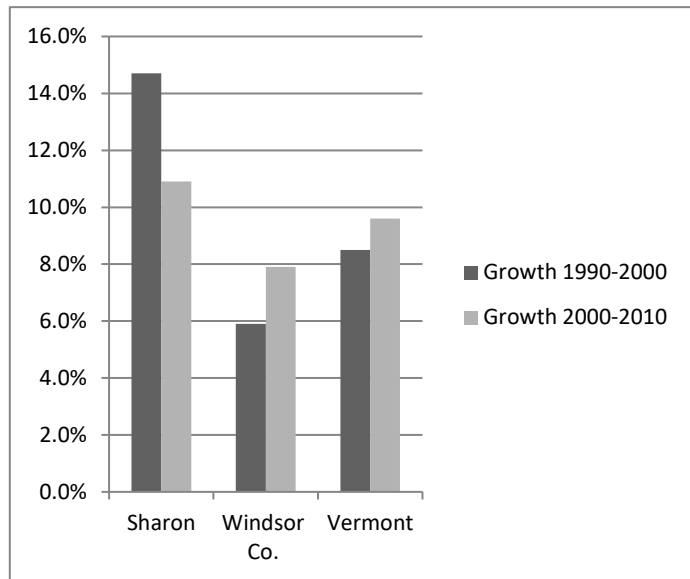


Figure 10: Housing Growth 1990-2010 (Source: US Census)

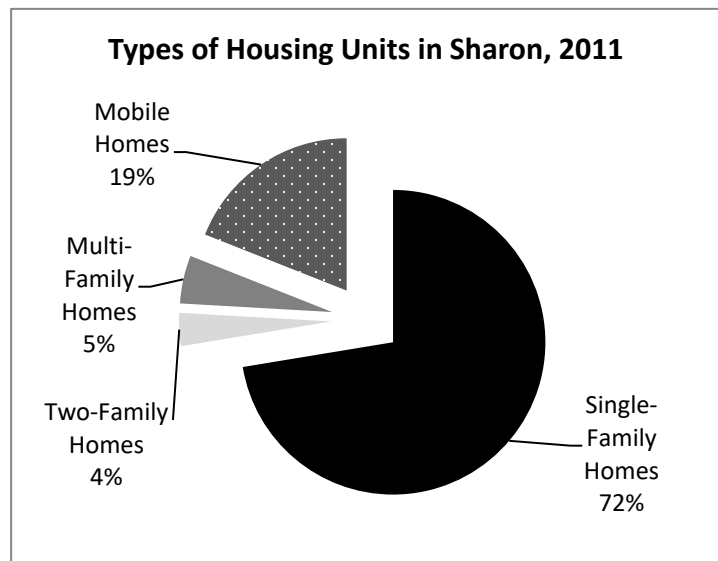


Figure 11: Types of Housing Units in Sharon, 2011 (Source: American Community Survey 2007-2011)

## C. Types of Housing Units & Ownership Characteristics

The U.S. Census definition of a “housing unit” includes conventional houses, apartments, mobile homes, and rooms for occupancy. The 2010 Census indicates that nearly three-quarters of Sharon’s housing stock is comprised of single-family residences (72.4%). The second largest percentage of housing unit type, mobile homes, (19% ) is nearly three times the percentage found in Windsor County (7%). Conversely, Sharon has significantly fewer multi-family homes than the rest of the county (5.1% compared with 18.1%), and it also has fewer two-family homes (3.5% compared with 4.4%).

<b>2010 Housing Occupancy, Sharon &amp; Surrounding Area</b>			
	<i>Owner-occupied</i>	<i>Vacation</i>	<i>Renter-occupied</i>
Barnard	47%	37%	10%
Hartford	51%	18%	26%
Norwich	69%	5%	20%
Pomfret	58%	24%	15%
Royalton	49%	7%	38%
Sharon	64%	10%	22%
Strafford	66%	19%	11%
Thetford	53%	19%	20%
Tunbridge	62%	21%	11%
Windsor County	52%	22%	20%

Figure 12: Housing Occupancy, Sharon and Surrounding Area  
(Source: US Census, 2010)

Over the past decade, ownership of Sharon’s housing stock has remained stable. The percentage of owner occupied housing in Sharon showed a slight (3%) increase between 2000 and 2010. The percentage of renter-occupied properties now stands at 22%. These rates hold for mobile homes as well as conventional homes. Of the total number of homes in Sharon, approximately 15% were vacant. Most of these vacant units are for seasonal or recreational use, and, when they are excluded

from the total supply of vacant units, the actual vacancy rate is 3.4%. Vacancy rates below 5% are considered to be “functional zero;” (the available units are usually uninhabited for reasons like sub-standard conditions). For all intents and purposes, there were few or no vacant housing units available in 2010.

## D. Household Characteristics

Sharon, like many communities in Vermont, has experienced a trend towards a smaller household size. According to the 2010 Census, household size in has fallen to 2.42 persons per household, down from 2.45 in 2000 and 2.62 in 1900. This trend, coupled with the steady increase in population size, results in an increased demand for housing and exacerbation of the overall vacancy rate. Additionally, shrinking household size also affects the type of unit demanded and the services those households may require. Several special population/household groups, such as the elderly or single heads of household, may have particular needs, such as increased personal care, or the need for child care.

## E. Housing Market Characteristics

According to the Vermont Department of Taxes Equalization Study in 2012, the average value of an

owner-occupied residential unit in Sharon was \$243,264. When compared to neighboring communities, Sharon has the second lowest average home value, roughly \$30,000 lower than the average home value for all of Windsor County.

Information on rents from the 2010 Census indicated a gross rent of \$1,066 per month as the median for Sharon; in 2000 the market rent was \$631 per month, which means that there has been a 69% increase in gross rental rates in the span of one decade. In comparison with neighboring towns, Sharon has the third highest gross rental rate. Rental prices are, in part, driven by the close proximity to the interstate, jobs in the Upper Valley and Vermont Law School.

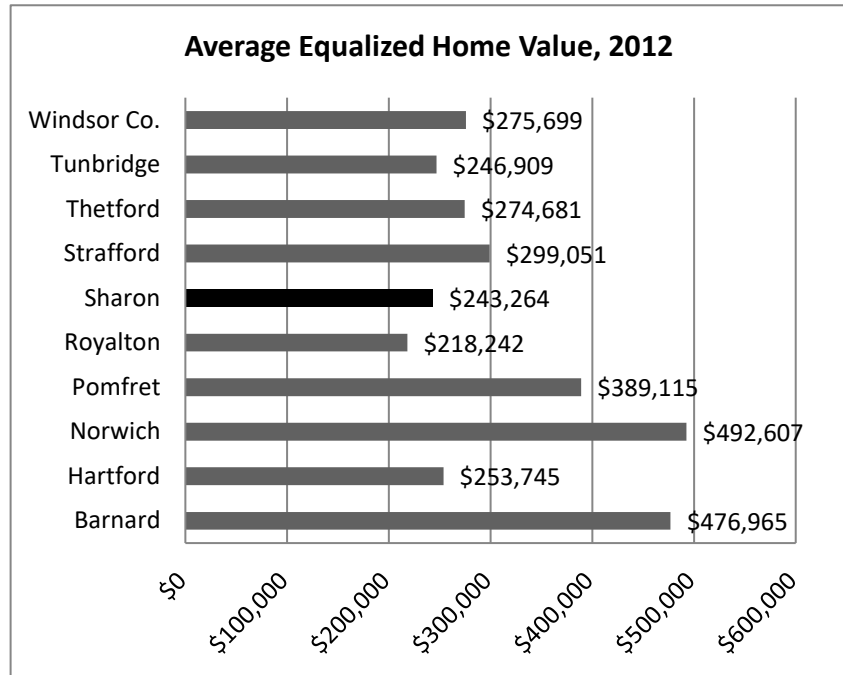


Figure 13: Average Equalized Home Values, Sharon & Surrounding Towns  
(Source: VT Dept. of Taxes)

## F. Affordable Housing

Affordable housing is defined as the amount a household earning the county's median income could afford if no more than 30% of its income were spent on housing costs. For homeowners, housing costs include payments for principal and interest on a mortgage, taxes, etc. For renters, housing costs include rent and utilities. The Town has far more households with low- to moderate-income than it has housing with low- to moderate-prices. According to the 2011 American Community Survey figures, 31.4% of Sharon's homeowners are paying 30% or more on owner's costs. The Vermont Housing and Finance Agency noted that, based on Sharon's median household income of \$52,727, the average affordable purchase price for a home is \$180,000. Assuming a 5% down payment, average insurance, and property tax rates, there is a \$46,250 affordability gap (based on median primary home sales data). Well over half of renters (61.8%) are paying 30% or more on housing costs.

There are no subsidized housing developments in Sharon, and there are also no nursing or residential care facilities

2011 Median Gross Rent Sharon & Surrounding Areas	
Barnard	\$1,326
Hartford	\$924
Norwich	\$1,104
Pomfret	\$1,058
Royalton	\$818
Sharon	\$1,066
Strafford	\$962
Thetford	\$952
Tunbridge	\$860
Windsor County	\$842

Figure 14: 2011 Median Gross Rent, Sharon & Surrounding Areas  
(Source: US Dept. Housing and Urban Development)

listed within the town. Creating affordable housing near the village center would improve the long-term vitality of the Town, by creating housing growth for not only the skilled workforce but also young families, the elderly, and the disabled.

## **G. Elderly Housing**

Section A of Chapter 2 discussed Sharon’s trend toward an aging population. “Baby Boomers,” people born between 1946 and 1964, are beginning to retire, and the oldest ones will be 84 in 2030. This shift in demographics will put added pressure on an already tight housing market. Expanding healthcare costs may leave seniors with even less money to spend on housing.

As the elderly become less comfortable with the tasks involved in managing their own home, they often turn to some sort of elder housing. If health is an issue and some form of constant care is required, seniors will need to enter a nursing home or a residential care facility. There are no options for elderly care in Sharon and very few in the surrounding area. Elderly Sharon residents in need of full-time care are forced to move away from the community. This is a statewide problem, not just a local issue.

## **H. Goals, Policies and Recommendations**

### **Goals**

1. To provide the opportunity for Sharon residents to have access to safe and affordable housing.
2. To encourage the preservation of historic structures in ways that appropriately serve the need for housing.
3. To help Sharon remain a community that offers housing for all income levels.

### **Policies**

1. It is the policy of the Town to ensure that the timing and rate of new housing construction or rehabilitation not exceed the community’s ability to provide adequate public facilities (e.g. schools and town services).
2. It is the policy of Sharon to inform a homeowner of their right to develop an accessory apartment on their owner-occupied single-family residence pursuant to 24 VSA §4412(E).
3. It is the policy of the Town to keep housing affordable by planning for:
  - a. appropriately sized lots;
  - b. accessory apartments; and
  - c. clustered developments.
4. It is the policy of the Town to encourage the provision of housing for special needs populations, such as the elderly and disabled persons, in close proximity to services in the village center and near transportation routes.

5. It is the policy of the Town to encourage and direct the location of future housing to complement existing or planned employment patterns, town services, travel times, and energy requirements.
6. It is the policy of the Town to give priority to the preservation and improvement (e.g., energy efficiency) of existing affordable housing and to discourage the conversion of such housing to other uses unless a clear public benefit results.
7. It is the policy of the Town to support safe, affordable, energy-efficient homes through the use of innovative construction methods and materials.
8. It is the policy of the Town to encourage conversion of larger homes to multiple family units to meet the needs of the community so long as the historic character of a building or neighborhood is not destroyed or diminished.

### **Recommendations**

1. The Town should seek grant funding to conduct a study to help identify areas most suitable for new residential development.
2. The Town should explore working with non-profit housing organizations or land trusts to develop perpetually affordable housing.
3. The Town should participate in housing workshops to understand methods to reduce the cost of developing new energy efficient housing.

## V. Government

### A. Tax Revenues versus Costs

Property tax is the only tax Vermont towns are allowed to levy to pay for services. For this reason, it is important to correlate total taxable property in Sharon – the tax base – with the ability of residents to fund local services, including schools.

In general, year-round residences pay less in taxes than it costs the town to provide services to them. Farms, forests, vacation homes, and most commercial properties, on the other hand, are generally fiscal boosts, paying more in taxes than they cost for services.

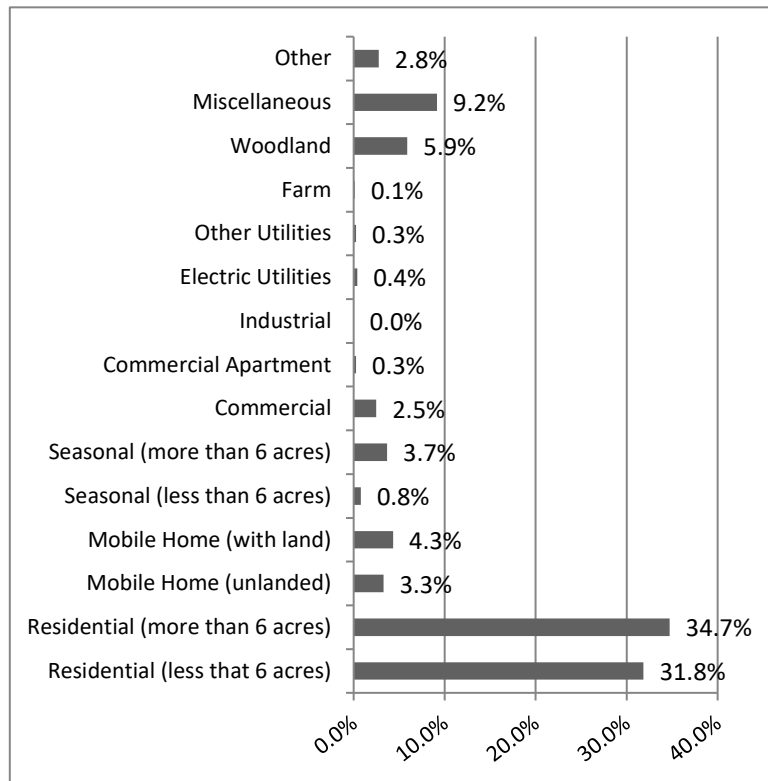
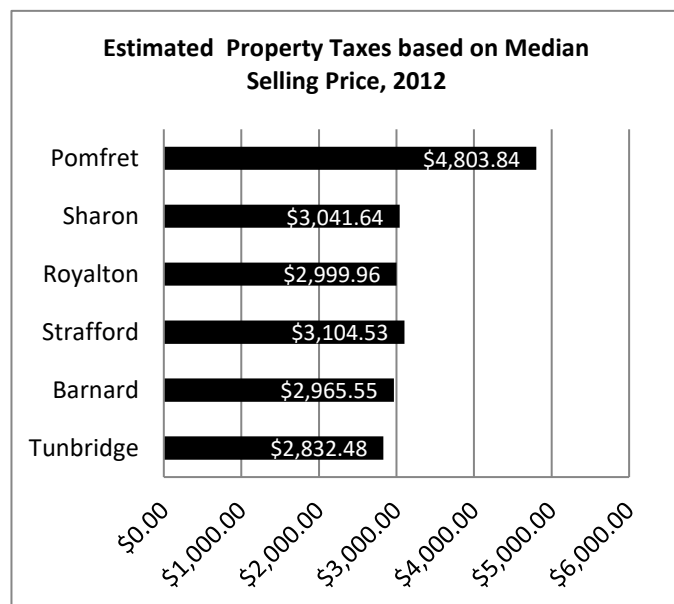


Figure 15 - Sharon Grand List Ownership Ratios, 2013 (Source: VT Dept. of Taxes)

### B. Tax Base and Ownership Ratios

The Department of Taxes maintains annual Grand List records for all towns in Vermont. Each town reports the property owned by corporations, town residents, state residents, and out-of-state residents. In 2010, the bulk of Sharon's grand list (74%) was occupied by full-time residential properties, in 2008 this percentage was 68.6%.

In 2013, a majority (74%) of Sharon's tax base was made up of full-time residential property (single family dwellings and mobile homes). This represented very



16 - Estimated Property Taxes Based on Median Home Sales, 2012 (Source: VT Dept. of Taxes)



slight increase from 2010 (73%). Mobile homes (with and without land) that were used as permanent residences decreased from 8.7% of the Grand List in 2010 to 7.6% in 2013. Although the number of farm and woodland properties have consistently represented 10% of Sharon’s Grand List over the past two decades, the total in 2013 represents only 5.9% of the Grand List.

Farm and forestland are valuable to the town, as tax revenues generally exceed the town’s cost to service the land. Unfortunately, property taxes on farm and forest land may exceed the owner’s annual income from farming and forestry. The Vermont Use Value Appraisal Program (the “Current Use” Program) allows landowners to pay taxes on open land based on the value of the land for farming or forestry. The State reimburses the town for taxes lost due to the lower valuation.

In 2013, Sharon’s property tax rate (including education taxes) was 2.0713 per \$100. This means that the estimated property taxes based on the median home sales price (\$148,750) in 2013 was \$3,081. Despite having the lowest median home sales value of the six towns sampled, Sharon had the highest property tax rate.

### C. Tax Bills

Taxpayer income, not property, pays the tax bill. While the Town is not able to tax income directly, it is important to note the income of Sharon’s taxpayers to understand the Town’s taxing capacity. Income levels in Sharon represent an average adjusted income per return similar to the State average. According to the Vermont Department of Taxes, in 2012 Sharon had an average adjusted gross income per person of \$26,083; the statewide average was \$25,898.

### D. Growth and Taxes

According to the Department of Taxes, in 2013 69% of Sharon tax revenue went to support schools, and 31% went toward the costs of town administration, public safety, social services, and highway maintenance and construction. A 2002 report entitled *The Land Use/Property Tax Connection* (sponsored by the Vermont League of Cities and Towns and the Vermont Natural Resources Council), reported that, on average, 75% of Vermont municipal budgets go toward the cost of educating children.

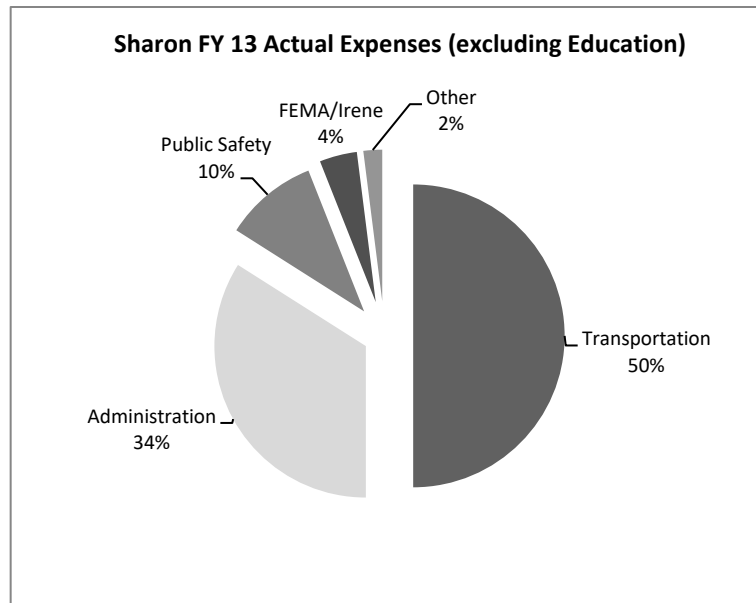
Sharon	Sharon Returns	As % of All Returns
Loss or None	10	1.4%
0.01 - 4999	46	6.4%
5000 - 9999	50	7.0%
10000 - 14999	42	5.9%
15000 - 19999	57	8.0%
20000 - 24999	51	7.1%
25000 - 29999	39	5.5%
30000 - 34999	50	7.0%
35000 - 39999	34	4.8%
40000 - 44999	25	3.5%
45000 - 49999	33	4.6%
50000 - 59999	42	5.9%
60000 - 74999	78	10.9%
75000 - 99999	73	10.2%
100000 - 149999	50	7.0%
150000 +	35	4.9%
<b>Total Returns</b>	<b>715</b>	

17 - Personal Income Tax Return Filings by Income, 2012  
(Source: VT. Dept. of Taxes)

## E. Town Services and Expenditures

Schools represent the largest single expense in most rural towns including Sharon; highway maintenance and reconstruction follow. For fiscal 2014, 50% of non-school expenses were earmarked for roads, 34% went to administration of town services (i.e. town officers and offices).

**Error! Reference source not found.** 20 shows town expenses by category in 2013, excluding schools.



18 - Actual Budget Expenses (excluding Education), 2013  
(Source: Sharon Town Report)

## F. Goals, Policies and Recommendations

### Goals

1. To ensure that Sharon has the capacity to fund town and school services without exceeding the taxpayers' ability to pay.
2. To develop a progressive tax structure that complements rather than contradicts the other goals of this Plan.

### Policies

1. It is the policy of the Town to analyze the fiscal impact of proposed projects on the rest of the community. Such an analysis shall address the impact of related secondary growth, such as residential growth.
2. It is the policy of the Town to manage growth to minimize significant tax increases and to phase capital expenditures to protect taxpayers from unplanned increases in tax bills.

### Recommendations

1. The Selectboard should study methods of reducing the tax burden on residents and incorporate these concepts into the town tax structure.

2. In planning to attract new businesses to the town, Sharon should ensure that the municipal costs to accommodate this growth do not exceed new tax revenues.
3. New developments should pay an impact fee for expanded town services.
4. New developments should be built in phases to decrease the burden on town services.

## **VI. Public Facilities and Utilities**

### **A. Town Owned Buildings and Land**

#### **Sharon Town Office**

The Sharon Town Office is located in the Village on Route 132. Formerly the Masonic Hall, the building was purchased by the Town in 1977 and renovated for town use. The Masons retain a lease for use of the second floor-. The main floor of the building holds the offices of the Town Clerk, Treasurer, Listers, and Administrative Assistant. There is one meeting room that is shared by the Sharon Selectboard, Planning Commission and Conservation Commission. The building is in good condition with adequate equipment and facilities. However, meeting space is limited, and town meetings are conducted at the Sharon Elementary School.

The Town had an energy audit conducted on the Town Office building a number of years ago, which recommended the installation of energy efficient windows. In 2010, the heating system and windows in the building were replaced through federal grant funding to improve energy efficiency. In order for the Town Office to serve as the Town emergency operations center going forward, the Town needs to procure an emergency back-up generator in the near future. No other major investments to the Town Office building are planned at this time.

#### **Old School House**

Next to the Town Office is the Old School House, which is presently leased to The Sharon Academy, a private secondary school. The building served as Sharon's elementary school until 1988, when a modern building was constructed on land behind the Town Office. Within the past five years, the Old School House had a new water treatment facility installed. Three pipelines distribute water to the elementary school, the Town Office, and the Sharon Congregational Church.

#### **Old Town Hall**

The Old Town Hall, located on the Green next to the Congregational Church, is a historic brick building that is used by the Sharon Historical Society for displays and meetings. The building lacks environmental controls. If these systems were installed, it would stabilize the Historical Society's collections.

#### **Sharon Fire Department**

Fire equipment and vehicles are housed in a three bay fire station located on Route 14 one mile west of the Village. The building had to be reconstructed in the wake of Tropical Storm Irene in 2011. Fundraising and insurance helped fund rebuilding efforts, and upgrade most of the department's equipment and gear, including new radios and pagers to improve communications with other local and state departments.

The Fire Department has set a goal to research the replacement of their aging Engine 2, which is utilized to respond to all accidents and fire calls in the town. A specially designated committee is completing a needs analysis to assess costs and means of purchasing a new vehicle in 2015. Because of the recent reconstruction no additional investments in the Fire Department building are planned at this time.

### **Baxter Memorial Library**

The Baxter Memorial Library offers an excellent lending and reading program for Sharon residents. The Library was built in 1925 and is located within the Village. The Library building is owned by the Town. Its operation is supported by donations, fundraising events, and town appropriations. Oversight of library activities is by the Library Board of Trustees elected at Town Meeting. The Library is open to the public during the week and on Saturday. In 2012, the library was weatherized, which included better insulated windows and doors throughout the building as well as air sealing the roof. This work was completed in conjunction with the Energy Committee. The library also benefited from the completion of a high-speed internet connection through the Vermont Fiber Connect project, which has significantly boosted library usage. The Library's perimeter drainage is in need of repair, and the building has other long range maintenance issues.

### **Town Owned Property**

In addition to the buildings named in this section, the following is a list of town-owned land:

- River Road property
- Town Green
- Town Forest (also known as the Minister's Lot)
- Lot in Sharon Village on Rte. 14 (Across from Seven Stars)
- Irene Buyout Properties
  - Former Green's Trailer Park (completed 2015)
  - 39 Farm Field (pending 2015)
  - Former Norm's Garage (pending 2015)

## **B. Town Garage and Highway Equipment**

Sharon's single most expensive capital asset is its system of roads, bridges, and culverts. Sharon's road crew does a remarkable job of maintaining and plowing the town's extensive network of roads, and maintaining bridges and culverts. Their efficiency and dedication is especially appreciated during the winter months. (Additional information about Sharon's transportation infrastructure is provided in Chapter XIV, Transportation.)

The Town Garage is located on a small parcel of land approximately one mile west of the Village on Route 14. There are three buildings on the site. The main building, constructed in 1974, is a four-bay heated garage housing equipment and serving as a maintenance facility. It was recently insulated to

improve thermal efficiency. In 2012, two aging underground diesel storage tanks were removed, and replaced by a new above-ground storage tank. An unheated pole shed, constructed in 1991, provides additional storage for equipment, and a new covered salt shed was constructed in 2014.

Present Town Garage facilities are adequate for the current level of operations. There are no immediate plans to expand existing buildings or to construct new buildings. However, it has been noted that road equipment and vehicle storage space is limited. The Town requires additional space for storage and servicing of Town vehicles, and the facilities, overall, need energy efficiency improvements.

The Town maintains an Equipment Fund for all major equipment acquisitions. Based on current equipment needs, the Sharon Selectboard draws from the Fund to acquire or upgrade equipment. One benefit of the Fund is that it assists in stabilizing tax expenditures within the highway department as equipment replacement is not financed entirely from current revenues.

### **C. Solid Waste Management**

The Town is a member of the Greater Upper Valley Solid Waste Management District, which was created in 1990 to plan for and manage, in an environmentally sound manner, the solid waste generated by its member communities. Presently, eleven municipalities are included in the District, which maintains a solid waste and recycling facility on Route 5 in Hartford.

The District's primary role is to:

1. prepare a comprehensive waste management plan on behalf of its member towns;
2. locate, design, and operate a regional lined landfill;
3. conduct recycling and special waste management programs; and
4. disseminate information on waste management to the public.

Going forward, Sharon will have to actively work with the District to ensure that the Town is meeting statutory goals set forth in Vermont's new Universal Recycling Law (Act 148). This new law pertains to the management of food scraps and food residuals, including the conventional recycling of items such as paper products, metal cans, plastics, and glass items. Due to increasing population, there is growing belief that Sharon will one day require its own transfer station to handle refuse.

### **D. Water Supply and Wastewater Treatment Facilities**

The Town of Sharon does not own or operate a public water supply or wastewater disposal systems. All residences and non-residential uses are dependent on individual on-site water supply and disposal facilities. The Town would benefit from the construction of water and/or sewer facilities to serve the Village through economic development and growth. The Town may investigate grant funding opportunities available (in the form of a Municipal Planning Grant, for instance) that would help fund a village septic project. One option that may be investigated is the Living Machine, a biological wastewater

treatment system that is less costly to operate than a conventional treatment system, and does not often require the use of harmful chemicals in the wastewater treatment process.

## **E. Goals Policies and Recommendations**

### **Goals**

1. To maintain town facilities that meet the needs of residents in a cost effective manner.
2. To improve water supply for town-owned buildings in the Village.
3. To address the long-range maintenance of town buildings.
4. To plan for, finance, and provide efficient community safety and other town services to meet the needs of Sharon's residents.

### **Policies**

1. It is the Town's policy to improve the energy efficiency of all town buildings, to the extent afforded by the town budget.
5. It is the Town's policy that growth and development should not exceed the capacities of local facilities and services.

### **Recommendations**

1. Implement recommendations made by the energy audit regarding energy efficiency improvements to the Town Office.
2. The Town should install energy efficient environmental controls in the Old Town Hall.
3. Work with non-profit agencies and the Agency of Natural resources to purchase or share the land containing the state garage on Route 14 to provide public access to the White River.
4. Work to add access points to the White River including the state garage, the pull off on Route 14 at White Brook Road, and/or Route 14 at the Town Garage and Irene Buyout properties that are adjacent to the river. Improve access to the White River Wildlife Management Area at Sharon Hill on Route 14 and also on River Road.
5. The Town should continue to monitor public safety, waste disposal, and recycling programs and provide input on necessary improvements.
6. The Town should hold public meetings to discuss construction of town water and/or sewer facilities to serve the Village.
7. The Town should fix the library's perimeter drainage and address the building's other long range maintenance issues.
8. The Town should study locations for and the cost of maintaining its own recycling station.

## **VII. Health and Emergency Services**

### **A. Health Care Facilities**

Health care facilities are essential in the prevention, treatment, and management of illness, and in the preservation of mental and physical well-being through the services that they offer. Rural locations, such as Sharon, are served by small facilities that can assist residents with general health care needs, but they are not suited for more complex acute care services that require specialized services and equipment.

Gifford Medical Center operates a clinic that specializes in sports medicine located on Route 14, less than one mile west of Sharon's Village center. The nearest family health center is the Bethel Health Center. For more extensive care, Gifford Medical Center in Randolph is available, offering a wide range of services to serve most medical needs. For additional and more advanced medical care, the Dartmouth-Hitchcock Medical Center, Alice Peck Day Memorial Hospital in Lebanon, NH and the Veterans Administration Hospital in White River Jct., VT are also available to residents.

Gifford Medical Center is developing an assisted living facility in nearby Randolph Center. This is the only assisted living facility within or near Sharon that is planned for development in the next five years.

### **B. Fire Protection Services**

Fire protection services are provided by the Sharon Firemen's Association, an all-volunteer department that provides 24-hour coverage. The Association also has mutual aid agreements for back-up service with Royalton, Pomfret, Hartford, Strafford, and Norwich.

Approximately two-thirds of the Association's operating budget in 2009 was funded by an appropriation from the Town of Sharon (\$20,000); the balance was raised from a variety of sources. To underwrite costs of new equipment, the Town of Sharon has established an Equipment Reserve Fund that is funded annually.

The Sharon Fire Department is operated exclusively by volunteers. While coverage is adequate, there is always a need for additional volunteers to serve as firefighters, to help raise money, and to help care for the equipment. Because a majority of Sharon's employed work outside of the community, and because of the added challenge of the many State and Federal requirements for training, it can be challenging to find volunteers. Nevertheless, the service provided by Sharon volunteer firefighters is exceptional.

#### **Fire Station**

The Sharon Fire Department is located in a station house on Route 14, roughly a half-mile west of the village center. The current site of the fire station was acquired in 1995, requiring a complete renovation of the building on the parcel. However, due to severe damage sustained during Tropical Storm Irene in



2011, the building had to be rebuilt. No upgrades to the Sharon Fire Station are anticipated in the next five to ten years.

### **Equipment**

The Fire Department has set a goal of researching a replacement vehicle for the aging Engine 2, which responds to all accident and fire calls, and acquiring a replacement in 2015.

## **C. Police Protection Services**

The Town of Sharon does not have a full time police force. An elected constable provides limited police security and traffic control services when needed. In 2009, the Town contracted with the Royalton Police Department to enforce the Town's traffic control ordinance and assist with other policing services. All other police protection functions are performed by the Windsor County Sheriff or Vermont State Police, Troop "E," located off Route 107 south of the Bethel/Royalton Town Line in Royalton.

It is important that the Constable position always be filled in order to provide adequate coverage within the community. The extensive training and expensive certification, as well as liability coverage, are becoming a concern for recruitment and retention of individuals willing to serve in this capacity.

## **D. Emergency Medical Services**

Emergency medical services in Sharon are provided by three separate response organizations: Sharon FAST Squad, the South Royalton Rescue Squad, and the Hartford Ambulance Service. Every year, the town appropriates funding required for the utilization of these services.

### **Dartmouth-Hitchcock Advanced Response Team (DHART)**

The Dartmouth-Hitchcock Advanced Response Team is based in Lebanon, NH at Dartmouth-Hitchcock Medical Center. DHART crews provide air medical transportation services to the medical communities of northern New England. In addition, DHART flight crews respond to public safety agency requests for medical evacuation of trauma patients from scenes of injury, and will transport to the closest Trauma Center. Operating 24 hours a day and seven days a week, DHART Crews transport adult, pediatric and neonatal patients to ANY appropriate medical facility in New England. DHART landings within Sharon are generally coordinated by the Sharon Fireman's Association. The ball field west of the elementary school is a designated DHart landing area.

## **E. Emergency Management Planning**

The impact of expected, but unpredictable natural and human-caused events to the region can be reduced through proper emergency management. Emergency management is generally broken down into four areas: preparedness, response, recovery, and mitigation.

- Preparedness includes emergency personnel acquiring suitable equipment, and conducting training and exercises. Preparedness is also a responsibility of residents, business and government. Simple preparedness measures, like having disaster supplies on hand, installing smoke detectors and generators, having emergency fuel for generators and vehicles and knowing basic first aid will all help to lessen the impact of a disaster. Preparing emergency plans is also a preparedness activity.
- Response is the initial emergency response to save life and property during and immediately after the disaster, and is initiated by local emergency crews and then followed up by outside forces if necessary. Response operations are greatly enhanced by proper preparedness. Most emergencies of any scale will require towns to work together, and often to work with state or federal agencies. Practicing with all of these partners before an actual emergency is critical to smooth emergency operations.
- Recovery is the more long-term process of putting life back to normal, and includes many state and federal agencies, especially the Federal Emergency Management Agency (FEMA) in large disasters. As events like Tropical Storm Irene showed, recovery can take a long time and is hindered if a disaster is severe or widespread. Sharon's experience with Tropical Storm Irene showed that there is less state and federal assistance than was expected, and what assistance is available requires a substantial effort at the municipal level.
- Hazard mitigation means any sustained action that reduces or eliminates long-term risk to people and property from natural or human-caused hazards and their effects. Mitigation planning begins with an assessment of likely hazards, and then targets activities to reduce the effects of these hazards. Given that the largest threat in Vermont is flood related, good mitigation measures include proper road and drainage construction, as well as limiting development in flood prone areas.

### **Local Emergency Operations Plan**

Sharon, like every town in Vermont, maintains a Local Emergency Operations Plan (LEOP). This plan contains contact information that is available to authorized users, but is not available to the public. The Selectboard should continue to keep the LEOP up-to-date and ensure that all parts of municipal government that are active during a hazard event are aware of what is in it. This includes the Selectboard, Fire and Rescue, Road Crew, and Shelter coordinators.

The LEOP covers the procedures for Sharon's response to a disaster. In the event of a disaster, the Selectboard will formally declare a state of emergency if the Board feels it exceeds the Town's emergency management capacity. This declaration will be faxed to Vermont Emergency Management, and a local emergency operation center will be set up in the Sharon Fire Station and/or the Sharon Town Offices. Several people have been identified in the LEOP as Points of Contact for coordinating the

Town’s response to a disaster, including the current Selectboard Chair, Fire Chief, and the Town’s Emergency Coordinators. The LEOP is updated on a continual basis to ensure that personnel and roles remain accurate.

In the event that emergency shelter is needed, the Sharon Fire Station and the Sharon Elementary School have been certified by the Red Cross, and the Hartford High School can be utilized as a tertiary shelter if needed (although it does not have a standing Red Cross Agreement in place). Both the Sharon Fire Station and the elementary school are equipped with backup generators and are designated as warming shelters in the event of a disaster.

In order to avoid disasters as much as possible, the Local Emergency Planning Committee and the Regional Planning Commission have developed an all-hazards plan which addresses mitigation and education needs.

### **Hazard Mitigation Plan**

Disaster mitigation covers actions taken to reduce the effects of a disaster. For Sharon, the primary hazard is flooding (often the result of severe weather patterns that include heavy rain, lightning, high winds, and hail), with a variety of other lesser hazards, including structure fires, extreme winter weather, and hazardous material spills. All hazards have been reviewed in the town's Mitigation Plan. There are many ways that the town can reduce damages, and since a disaster does not always result in state or federal assistance, the town should take sensible steps that can reduce disaster costs, damage to property and loss of life.

### **Emergency Access**

Any new property development in Sharon should be designed to allow safe access for emergency services. Poorly designed roads and driveways that are too steep or too narrow can limit access, particularly in the winter, and may represent a safety hazard for the emergency responder.

In new subdivisions, the design of roads and driveways should be consistent with town highway and access policy. On major subdivisions, the Selectboard may require the provision of storage ponds and dry hydrants necessary for adequate fire protection.

## **F. Goals, Policies and Recommendations**

### **Goals**

1. High quality medical care should be available to all Sharon residents, with special attention given to seniors enabling them to “age in place.”
2. Ensure the protection and safety of the citizens of Sharon against crime and violations of law.

3. Maintain appropriate fire and ambulance service.

## **Policies**

1. It is the policy of the Town to support and encourage the development of local health care facilities and counseling services to help residents obtain health care as close to home as possible.
2. It is the policy of the Town to support programs that improve medical services for Sharon residents, especially our older residents, to facilitate their ability to stay in their home.
3. It is the policy of the Town to support the development of assisted living or other facilities or services dedicated to supporting the elderly in Sharon.
4. It is the policy of the Town to support efforts to decrease response times for emergency services.
5. It is the policy of the Town that road and driveway access to proposed developments meet town road and access standards.
6. It is the policy of the Town to maintain its relationship with the Royalton Rescue Squad and Hartford Ambulance Service for emergency rescue response services, in addition to continuing to appropriate funding for these and the Sharon First Response services.
7. It is the policy of the Town that the Selectboard maintain an up-to-date Local Emergency Operations Plan.
8. It is the policy of the Town to work with the Two Rivers-Ottawaquechee Regional Commission to properly plan for hazard events.

## **Recommendations**

1. The Town should establish a volunteer health care coordinator position to provide and/or coordinate health services for seniors.
2. The Selectboard should update the Local Emergency Operations Plan at least once a year or when key emergency management personnel change.
3. The Selectboard should adopt a Hazard Mitigation Plan with assistance from the Two Rivers-Ottawaquechee Regional Commission, and establish procedures for continued maintenance of the Plan.
4. The Selectboard should have a clear plan for use of the emergency shelter. This plan should include written guidelines with regard to staffing and operation.

5. Town officials who are part of Sharon’s emergency management team should receive adequate training in the Incident Command System (ICS).
6. The Selectboard, in conjunction with the Fireman’s Association, should recruit a representative to regularly attend the Local Emergency Planning Committee (LEPC #12) meetings).

## VIII. Education

### A. Background

Providing high quality education to Sharon’s students has always been a community goal. A successful school system depends on appropriate facilities, good teachers and administrators, interested and involved parents, and meaningful and challenging educational programs for students. Schools have the added benefit of providing a core for the community. They represent a place where residents regularly make contact as they celebrate the growth of their children. Maintaining a strong school is essential to the vitality of the community.

### B. School Facilities

Sharon has one public school, Sharon Elementary, which houses grades K through 6. Sharon Elementary School, located in the Village, was built in 1988-89 in response to increasing student enrollments. Although the Sharon Elementary School is a now over 25 years old, it is well-maintained.

The school is in the process of implementing a number of energy efficiency upgrades in response to a building-wide energy audit. Improvements include replacing existing lighting fixtures with energy efficient models, installing a wood-pellet boiler for heating and installing a 12kW solar system on the roof. Beyond these improvements there are no major investments planned in the immediate future.

### C. Enrollment

There is no public school for grades 7-12 in Sharon, so students have the option to choose which school they will attend and the town pays tuition for the student. School choice is considered to be a benefit by many families.

School choices include The Sharon Academy or one of several other area schools, including Royalton and Hartford High Schools, and the Hartford Area Career & Technology Center. Over past decade the number of tuitioned students has decreased by roughly 16. There were 111 tuitioned students in 2013-2014.

School Year	P/K-6	7-12
2013-2014	147	111
2012-2013	131	117
2011-2012	110	123
2010-2011	113	115
2009-2012	114	127
2008-2009	96	126
2007-2008	87	125
2006-2007	102	131
2005-2006	125	132
2004-2005	124	140

Figure 19: Average Daily Membership, K-12

The Sharon School District annually appropriates funds for tuition payments and other secondary school costs. For FY14, approximately \$1,416,253 was budgeted for this purpose, which represented approximately 38% of the total school budget. Given that

these tuition rates are fixed independently by other Districts, Sharon voters have no direct control over a major portion of the school budget. Other towns are able to exercise some control over the cost of tuition for secondary education by designating a specific school to receive their students.

School	2013-2014 Tuition
The Sharon Academy	\$13,565
Hartford High School	\$11,400
South Royalton High School	\$14,900
Randolph Technical Career Center	\$15,593
Hartford Area Career and Tech Center	\$12,255

Figure 20: Tuition Rates, FY 14

## D. Career and Technical Education

The Hartford Area Career and Technology Center (HACTC) in White River Junction serves students attending Hartford, Hanover, Lebanon, Mascoma, Windsor and Woodstock high schools, along with Thetford Academy, Sharon Academy and home-study students. Instruction is provided in 14 programs including Allied Medical Services, Auto Technology & Collision Repair, Building Trades, Business Technology & Management, Computer Technology, Culinary Arts, Media Arts, Engineering and Architectural Design, and Natural Resources. In addition, a career exploration program exists for at-risk sophomores. Seniors may enroll in a cooperative-education program, which provides paid work experience in business and industry related to their program at HACTC.

## E. Adult Education

Sharon has a limited amount of adult education opportunities. Most adults take advantage of the opportunities that are available in the Upper Valley and surrounding towns as an alternative. The nearest opportunities include:

- **Vermont Law School** - Vermont Law School (VLS) was chartered in 1972 as a private, independent law school. The school is accredited by the American Bar Association and by the New England Association of Schools and Colleges and is a member of the Association of American Law Schools. The only law school in the state of Vermont, it awards the degrees Juris Doctor and Master of Studies in Law. Enrollment at the Law School, as of 2014, is 642 students. VLS has struggled to keep enrollment numbers up since the 2008 recession.
- **Vermont Technical College (VTC)** - Vermont Technical College is located in Randolph Center. VTC is part of the Vermont State College system and offers full and part time educational opportunities that range from computer technology, to agriculture, to health services. Attendees may choose a two-year program that leads to an Associate's Degree, a four-year program that leads to a Bachelor's Degree, or the college's one-year program that leads to a Practical Nursing certificate.
- **Dartmouth College** - The Osher Institute for Lifelong Learning at Dartmouth was established by Dartmouth College as the Institute for Lifelong Education at Dartmouth (ILEAD) in November 1990 by 38 members of the Upper Valley intrigued with the "idea of continued learning." Their program is open to all and offers classes during the fall, winter and spring.

- **Seven Stars Center and the Vermont Independent School of the Arts** – Located in Sharon’s village, the Seven Stars Center is a non-profit corporation dedicated to the exploration of the diversified arts. The Center serves the Upper Valley Community by providing diverse educational opportunities and performances.

## F. Childcare

An inventory of registered childcare facilities reveals that Sharon has a very limited amount of childcare available to the community. The State of Vermont has two classifications of regulated childcare:

- **Registered Family Child Care Home:** A child care program approved only in the provider's residence, which is limited to a small number of children based on specific criteria.
- **Licensed Program:** A child care program providing care to children in any approved location. The number and ages of children served are based on available approved space and staffing qualifications, as well as play and learning equipment. A Licensed program must be inspected by the Department of Labor and Industry's Fire Safety Inspectors and must obtain a Water and Wastewater Disposal Permit from the Agency of Environmental Conservation. A Licensed program is considered a public building under Vermont Law. Types of licensed programs include: early childhood programs, school-age care, family homes and non-recurring care programs.

Childcare Providers by Town (2014)		
	Registered	Licensed
Norwich	0	5
Pomfret	2	0
Royalton	3	3
Sharon	0	2
Strafford	0	2

21: Childcare providers by type, by town 2014  
(Source: VT Bright Futures)

There are currently only two licensed childcare services in Sharon. Most residents currently arrange for care with relatives or take their children to childcare facilities in neighboring towns in the Upper Valley. For afterschool care, the One Planet program is offered through the Elementary School.

## G. Goals, Policies and Recommendations

### Goals

1. To provide a safe and secure learning environment where high quality educational opportunities are provided to all students.
2. To provide the best education to our students at the most reasonable cost to the Town’s taxpayers.

### Policies



1. It is the policy of the Town to provide sufficient and appropriate physical space to meet current and projected enrollments.
2. Development which is likely to increase school enrollment shall be required to pay an impact fee to defray the cost of expanded town services.
3. Developments should be phased and carefully planned, to avoid exceeding the Town's capacity to provide adequate educational services.

**Recommendations**

1. The Selectboard should annually meet with the Sharon Elementary Schoolboard to determine if school building needs are being adequately met.
2. The Schoolboard should identify career and technical education needs by working with staff of the secondary schools that Sharon students attend.

## **IX. Recreation**

### **A. Introduction**

Sharon residents value a rural lifestyle and have expressed a desire to maintain our environment for future generations to enjoy and use. Community recreation plays an important role in the health of the community, both in terms of physical health as well as social and emotional health. The 2000 Sharon Community Survey identified recreational opportunities as major components of individual and community life. Survey responses identified strongly with the need for future planning to assure recreational opportunities for Sharon's citizens and visitors. This section of the Plan inventories current recreational facilities and programs available to Sharon citizens and addresses prospective needs and issues.

### **B. Programs and Activities**

Sharon Recreation Program – Since the late 1970s, Sharon residents have benefited from a community organized and managed recreation program. Directed by the Sharon Recreation Committee, this program historically provides a variety of recreational opportunities for all age groups. The Sharon Recreation Program is financed by taxes, dues, and fees. Recreation Committee members are appointed by and responsible to the Sharon Selectboard.

Since the Sharon Elementary School does not provide a sports program, the Sharon Recreation Program is closely coordinated with the school. The success of the Program is largely due to broad community involvement and a vast network of volunteers working to provide the community with recreational benefits. Activities for children include Little League baseball, soccer, softball, basketball, and outdoor ice-skating. Nearly all programs are conducted on land owned by the Town adjacent to the Sharon Elementary School.

A description of the Town's recreational organizations and facilities available to all residents follows:

**White River** - The White River provides a variety of recreational experiences which include fishing, swimming, canoeing, kayaking and tubing, as well as bird-watching and photography. The river is popular with residents and also attracts tourists. The state has designated it as an exceptional fishing and recreational resource. (See White River Basin Plan, Agency of Natural Resources, Vermont, 2002).

Sharon and this section of the river are featured in a number of guidebooks, including *Vermont Recreation Handbook*, *Touring Vermont's Scenic Roads*, *Canoe Camping Vermont and New Hampshire*, *25 Bicycle Tours in Vermont*, and *Travel Vermont*.

**Sharon Old Home Day** - Sharon is proud of having the oldest continuous Old Home Day in Vermont, with over a century of continuous celebration. Old Home Day provides an opportunity for residents and friends of Sharon to join together to promote the spirit of the community and its people. This traditional event includes a parade, Firemen's chicken barbecue, and other activities for the public's enjoyment.

Support for the program is provided by numerous volunteers, the Sharon Fire Department, private donations, and Town funds.

**Sharon Snowmobile Club** - Formed in 1990/91, the Club was created for the purposes of promoting safe and responsible snowmobiling for its members. Snowmobiling in the Upper Valley is an active recreational pursuit that benefits local business owners. Primary issues facing snowmobilers are loss of use of private land for trails in future years, landowners' liability concerns, and possible discontinuance of Class 4 town highways used currently as trails. The Sharon Snowmobile Club encourages cross-country skiers to use its trails as well.

**Sharon Horseshoe League** - The League has existed since approximately 1980. League players and teams also come from neighboring towns, including Royalton, Tunbridge, and Barnard. Horseshoe pits are located on private lands adjacent to the Sharon Park & Ride lot and the Congregational Church. This seasonal recreation program is self-sustaining and there are no immediate needs or issues outstanding.

**Public Lands** – The Vermont Agency of Natural Resources owns 1,328 acres of land in Sharon: the 705 acre Charles Downer State Forest, and the 623 acre White River Wildlife Management Area. (See the Natural Resources Chapter)

A Civilian Conservation Corps (CCC) camp was established in the Downer State Forest in 1933 and was operated through 1935 during which the Corps improved the forest. In 1945 a 4-H Camp was organized and leased the buildings of the old CCC camp. The 4-H camp is still actively operated as a very popular summer camp. A gravel State Forest highway, approximately 5.5 miles long, connects the two sections of Downer State Forest and provides opportunities for horseback riding and mountain biking during the summer and cross-country skiing and snowmobiling during the winter. The Forest also supports public hiking, fishing, and hunting.

Adjacent to the White River Wildlife Management Area is the White River Ledges, a 186 acre parcel in Sharon and Pomfret owned by the Nature Conservancy. This contains habitat for several rare plants, and a public hiking trail.

The Vermont Agency of Transportation owns and manages a small parcel of land with access to the White River on Route 14 north of the Village. Efforts between the Sharon Conservation Commission and the Agency to improve access to the river are on-going.

No changes in management practices or uses to the above properties are contemplated or desirable at this time.

**Trails and Greenways** – Sharon currently has few established or protected trails. Most trails are old logging roads across private lands; some are Class 4 town roads. Although figures on trail use are not available, the State's 2005-2009 Outdoor Recreation Plan presents many indicators of the increasing demand for trails-based recreation. The reasons for the increasing demand include the increase in Vermont's population, greater income of our population, the State's exceptional environmental quality, public ownership of land, tourism, and increased participation in outdoor recreation in general.

Given the likely increase in demand for hiking experiences, increased use of existing trails and paths can be expected. Given other emerging land uses, some of which could conflict with hikers and other trail

users, there is an obvious need for users and landowners to work together to minimize conflict and identify opportunities. The continued use of some trails is threatened by land subdivision, changes in ownership, fear of liability suits and vandalism. This problem is likely to increase over time. To secure the best interests for all parties, private enterprise, trail organizations, state and federal agencies and the Town need to assume a role and responsibility to mitigate these problems.

Local roads are heavily used by runners and bicyclists. Commercial bicycle touring companies and others promote Vermont's scenic roads as good places to tour. Recreational use of roads can become dangerous due to increased vehicular traffic and inadequate shoulders along most roads. Transportation planning and development by the Vermont Agency of Transportation is now being coordinated with the Town and the Regional Commission to reflect the growing demand for bikeways.

## **C. Goals, Policies and Recommendations**

### **Goals**

1. To assure continued recreational opportunities for Sharon's citizens and visitors of all ages.
2. To offer a wide variety of programs and activities to encourage all of Sharon's residents and visitors to be physically active and socially engaged.

### **Policies**

1. It is a policy of the Town to inventory and plan for recreational facilities and programs for Sharon citizens.
2. It is the policy of the Town to encourage the practice of not posting private property and to allow others to recreate on private property when such use does not burden the owner's use of the property. State legislation restricts the liability of the landowner with regard to injuries sustained by users of their property. However, it is recognized that it is a fundamental right of property ownership to restrict or limit access to property and that such a right needs to be respected and recognized.
3. It is the policy of the Town to support efforts between landowners, recreational organizations, and trail users to foster a stronger relationship for the protection and maintenance of trails.
4. It is the policy of the Town to maintain its diverse community recreation program that provides such a wide range of recreational experiences and physical challenges for all age groups.
5. It is the policy of the Town to support, plan, and develop roadside shoulders or walkways for use by bicyclists and pedestrians when user demand and safety measures necessitate.
6. The White River is a well-used scenic and recreational resource that is greatly valued by the town and its residents. It is therefore the policy of the Town:
  - to prohibit development within 150 feet of the top of the river bank, consistent with the Town's 2009 Stream Geomorphic Assessment;
  - to encourage partnerships between landowners, non-profit organizations, and local and state governments to protect river access, to acquire buffer strips (riparian zones), and to encourage river conservation easements on important segments;

- to support the state’s water quality anti-degradation policy;
  - to develop appropriate land use at the town level and to foster the protection and management of the White River, its tributaries and adjacent lands; and
  - to promote better public understanding and involvement in rivers as scenic and recreational assets through improved public education.
7. It is the policy of the Town to encourage and participate in the conservation of key natural resources, scenic areas and historic structures, such as Downer Forest, the CCC Pond, Lake Mitchell, and the White River.
  8. To protect and enhance recreational opportunities and the natural beauty and scenic characteristics of significant local landscapes, it is the policy of the Town to:
    - ensure that major developments or subdivisions are sited and designed to promote their recreational resource value; and
    - evaluate, as part of the Town subdivision review process, and set aside land or facilities for parks, public access or trails, if the need for those lands or facilities has been identified by the community and would benefit the residents of the subdivision. (*See 24 V.S.A., Section 4417*)

## **Recommendations**

1. The Town should give full consideration to preserving Class 4 roads for current or future recreational or trail purposes and not discontinue them.
2. The Town should better educate the public on the existence of public trails and recreational facilities in Sharon and develop a town-wide trail and recreation map.
3. The Town should consider building a path through the Village to make it safer for children to walk and ride their bicycles to school and for use as an exercise path for all citizens.
4. The Town should adopt the land conservation recommendations made by the Linking Lands Alliance to create greenways with neighboring towns so that wildlife will have contiguous undeveloped land for habitat.
5. The Town should work with non-profit organizations, such as the Vermont River Conservancy and the White River Partnership, to acquire land including the VTrans building on Route 14 along the White River for recreational access to the River.
6. The Town should improve safety for bicyclists and runners on Back River rd by expanding road shoulders or creating a designated bike lane.

## **X. Scenic Resources**

### **A. Scenic Resources**

There are several types of scenic landscapes, ranging from the built environment of the village to sparsely settled rural residential areas and remote roadless ridgelines. Their relative importance is dependent on the clear and dramatic focal points; the diversity of the landscape; the change from distinct village areas to clustered residential settlements to the surrounding countryside; and landscapes that have stayed intact, despite changes surrounding them.

In Sharon, areas of scenic significance that could be adversely affected by development include the following:

- Howe Hill Road from the Pomfret town line to River Road including Billings Hill;
- Steele Road “cirque” meadow and ridgeline that is visible as you approach Exit 2 on the northbound side of I-89;
- Raymond Farm;
- Cowslip Lane;
- The Historic Day District at the intersection of Beaver Meadow Road and Route 132;
- The CCC Pond in Downer State Forest;
- Star Mountain Road amphitheater;
- Lake Mitchell land;
- Protected land on Chapel Hill Road;
- Brookside Farm on White Brook Road;
- The CasCadNak billings property at the end of White Brook Road; and
- The White River Corridor through the Town.

### **Goal**

1. To plan for the controlled and orderly growth of the town, developing a pattern that maintains Sharon’s rural character and areas of scenic significance.

### **Policies**

1. This Plan encourages a pattern of development that complements the traditional settlement pattern clearly recognized and existing in the town.
2. Strip development along access roads and scattered development in rural or outlying areas affect the transition between villages and countryside, and have a negative impact on rural atmosphere. It is not in the public interest to allow such patterns of development.
3. It is the policy of the Town to restrict land development on ridgelines. Any structures or buildings shall be located away from ridgelines, and shall be built lower on the hillsides, hidden within wooded areas when possible.
4. New buildings shall be compatible with traditional pattern, scale, size, and form. Buildings or structures shall be sited in less visible areas, and not block distant views. Clustering of buildings or structures are encouraged to leave open vistas on the site.
5. It is the policy of the Town to minimize the loss of agricultural land. Structures shall be clustered in such a manner that remaining land is available for agricultural uses.

6. The use of common access drives to properties is encouraged as per the Town's Subdivision Regulations and the Highway Ordinance.
7. Utilities shall be located away from productive agricultural land, in a manner designed to minimize visual impact.
8. It is the policy of the Town that structures, buildings, and other site developments shall be planned so that form, grouping, and other features are compatible with existing patterns of the area or site to reduce the apparent scale of the project.
9. Design planners are encouraged to break large parking areas into smaller lots with ample landscaping or screening from off-site views, and to locate the project on the less scenic areas of the site. Prominent grade changes that contrast with surrounding contours shall be avoided.
10. It is the policy of the Town that design plans minimize contrast when building is proposed within or adjacent to historic sites or areas recognized by the state of Vermont and/or the Town of Sharon. Project planners must design buildings and structures compatible with the scale, grouping, and texture of nearby structures, and must respect the existing pattern. Structures must not contrast sharply with their surroundings, particularly where the composition of the overall project is highly visible from public viewpoints.
11. It is the policy of the Town that proposed development design plans reflect the traditional settlement pattern and characteristics of the area. Projects shall be designed so that it is in scale with its surroundings, and does not extend or enlarge unacceptable patterns of development (e.g. strip development). Design solutions shall minimize visual intrusion on the most scenic attributes of the site. They shall respect the natural contours of the land, use landscaping which harmonizes with existing vegetation to create project buffers and screening, and to encourage pedestrian access and internal circulation.
12. Given the visual impact of electric generation, transmission lines, and distribution facilities, proposed design plans shall evaluate a project's visual impact and
  - avoid locating rights-of-way which divide land uses, and work toward location of corridors along edges of land uses (i.e. agricultural land/forests);
  - align corridors and power transmission lines with due consideration of topography, along the edges of valleys rather than in the center, in the prevailing direction or pattern of topographic features, and avoid placement along ridgelines;
  - in forested areas, place power transmission lines to minimize removal of vegetation or disruption of views; and
  - locate corridors and power transmission lines sufficiently far from highways to permit intervening elements, such as trees, to interrupt the view of the lines.

## **Recommendations**

1. The Town should employ a process for evaluating impact of any development on scenic resources, and recommend design guidelines for those involved in the preparation and review of design proposals.
2. Include Sharon's scenic resources on the Town's Future Land Use Map to assist in proper planning and in the review of development proposals.

## **B. Ridgeline Protection**

Ridgelines are the highest point of hills. Glaciation left long narrow chains of adjacent ridgelines, such as those in Sharon, provide stunning scenic backdrops and contribute to the preservation of rural character.

Sharon has many ridgelines which create cherished vistas and dramatic views. Among them are those areas on Baxter Mountain, Quimby Mountain, Tyler Mountain, Billings Hill, Boyds Hill, Howe Hill, and the Steele Road hilltop as seen from I-89. These ridgelines are shown on the Future Land Use Map.

### **Goals**

1. Create a ridgeline overlay district.
2. Restrict ridgeline development which would threaten or harm ridgeline ecology and the critical biodiversity which it supports.
3. Restrict ridgeline development which would have an adverse impact on the scenic character of Sharon.
4. Promote sensitive development which would not diminish the scenic or ecological value of ridgelines.

### **Policies**

1. It is the policy of the Town not to allow the removal or thinning of existing forest cover on ridgelines, unless it is done as part of regularly scheduled forestry maintenance. If it is maintenance, it must adhere to acceptable management practices as outlined in the Vermont Department of Forests, Parks, and Recreation publication *Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont, 1987*, and Act 15. Ridgeline forest management shall provide for the sustainable, ongoing management of forest resources, shall protect aesthetic resources and wildlife habitats, and shall preserve the appearance of an unbroken forested canopy when viewed from town roads-
2. It is the policy of the Town to direct development away from the fragile environments of ridgelines.
3. It is the policy of the Town to evaluate critically any proposed ridgeline development.

### **Recommendation**

1. Assemble accurate maps of Sharon's ridgelines to assist in proper planning and in the review of development proposals.

## **C. Aesthetics and Outdoor Lighting**

This section of the Town Plan is intended to provide clear policy statements for evaluation of lighting installations planned for both public and private property. Our historic village and other areas planned for



concentrated mixed use will be best served by lighting designs that do not add to night time sky glow.

Necessary light levels vary according to use. Using the minimal amount of light necessary decreases sky glow and avoids escalation of light levels. Sky glow, or reflected light from surfaces, is visible in the night sky over Sharon Village and is a form of “light pollution”. Sky glow affects our ability to see stars and other aspects of the nighttime landscape. Techniques to reduce the amount of illumination shining into the sky, and the overall amount of illumination, can reduce sky glow.

### **Goals**

1. To preserve the nighttime ambiance and aesthetic qualities of the village and rural areas by illuminating them for safety and convenience in ways that enhance the streets, buildings, and public spaces, and reduce sky glow.
2. To design outdoor lighting systems that conserve energy and minimize life cycle costs, and which are creative and functionally consistent with these purposes.

### **Policies**

1. It is the policy of the Town that proposed lighting design be appropriate for the use of the site, and be compatible with the existing character of the neighborhood. Lighting installations shall not be excessive, shall be designed to minimize glare and sky glow, and shall not exceed the boundaries of the area to be illuminated onto adjacent properties.
2. It is the policy of the Town that for large projects, designers follow lighting design guidelines set forth in the most current version of the *Outdoor Lighting Manual for Vermont Municipalities* published by the Chittenden County Regional Planning Commission. Design plans which exceed IESNA or the Manual recommendations shall be evaluated for conformity with this Plan, particularly as they may relate to their effect on the character of the area and sky glow.
3. It is the policy of the Town that project planners use fixtures which reduce glare. Where a light source is particularly bright compared to its background, use of shielded fixtures to direct light downward, or a reduction of the wattage of light, will use lighting more efficiently, minimize the amount of wasted light, and reduce energy costs.
4. It is the policy of the Town that excessively high lighting levels in rural or very low-density residential areas are inappropriate.
5. It is the policy of the Town that illuminated signs over 32 square feet per face are disruptive to Sharon’s historic Village and to rural areas. Illuminated signs that are excessively bright, cause glare and illuminate surrounding areas, are inappropriate.
6. Lighting that flashes or moves or exceeds 10 feet in total height is inappropriate.
7. Project designers shall consider the impact of sky glow, and shall design illumination which minimizes light pollution without unduly compromising safety, security, or utility. Methods that will help reduce sky glow include:
  - directing luminaries downward, toward the ground;
  - prohibiting light from being emitted above 90 degrees;
  - reduce illumination levels;
  - turn lights off after hours;
  - use of motion detectors to switch on lights only when necessary.

## **D. Planning for Telecommunications Facilities**

At present, transmission towers are the dominant telecommunications facilities in Sharon. The Town has a telecommunications bylaw that sets out standards and requirements for the operation, siting, design, appearance, construction, monitoring, modification, and removal of telecommunication facilities and towers. The bylaw requires sharing of existing communications facilities, towers and sites, where possible and appropriate. It includes design and siting standards to minimize the adverse visual effects of towers and related facilities, and encourages the location of towers and antennas away from visually sensitive areas, prominent scenic areas, historic areas, and the White River. Proposals for new or co-located telecommunication equipment on existing towers are received by the Planning Commission annually.

In late 1995, Vermont RSA Limited Partnership (Bell Atlantic Mobile) filed an Act 250 application and was granted a permit to construct a 190-foot communications tower on Baxter Mountain. The Town of Sharon opposed construction of the tower largely on grounds that it would be highly visible and create an adverse impact on scenic resources. Following erection of the tower, the Town successfully petitioned the Environmental Board for revocation of the permit on finding that Bell Atlantic Mobile violated conditions in its permit. The end result was an amended application and issuance of a new permit authorizing the dismantling of the previously approved tower and its replacement with a shorter, less visibly intrusive tower. In short, the applicant was compelled to take actions to improve the harmony of the project with its surroundings.

During 2003, Nextel brought two tower proposals to the town: the first, a faux-pine tree built between I-89 and Route 14; the second, a “brown stick” monopole located off Route 132. After several hearings with the Planning Commission and Selectboard, Nextel received permission to build variants of both towers, agreeing to provisions for reductions in height and visibility which made the proposals more acceptable to the town. Sharon currently has three telecommunications towers.

### **Goals**

1. To preserve the rural character and appearance of the Town of Sharon as defined in this Plan.
2. To protect the scenic, historic, environmental, and natural resources of the Town of Sharon.
3. To facilitate the provision of telecommunication services to the residences and businesses of the Town of Sharon.

### **Policy**

1. The Town of Sharon shall adhere to the telecommunications policies stated in the Town’s 2004 Telecommunications Bylaw.

### **Recommendation**

1. To work with providers to secure high speed (fiber-to-home) internet access throughout the Town of Sharon.

## **XI. Natural Resources**

### **A. Water Resources**

#### **White River Corridor and Tributaries**

The White River is the longest free-flowing river in Vermont and the main stem is the longest undammed tributary to the Connecticut River. The White River is of great economic and ecologic importance to the region and provides opportunities for fishing, swimming, boating, tubing, hunting and birding.

While the White River is still known for its trout fishing and scenic beauty, the watershed faces many challenges. Local communities are increasingly concerned about issues like flood damage, riverbank erosion, water quality problems, wildlife and habitat loss, sedimentation, the decline of native fisheries and limited public access. A geomorphic assessment was conducted on the White River and its four major tributaries, to map fluvial erosion hazard (FEH) areas, and to develop a series of recommendations on management of erosion hazards and river habitat improvement that were folded into the Sharon River Corridor Management Plan (RCMP).

When completed in 2010, the River Corridor Management Plan identified a number of areas where stream channel instability exists. The Plan identified three ways in which these areas can be addressed:

- **Active Restoration:** Removal of constraints to channel stability or aquatic organism passage. This includes culvert replacement or retrofitting and reshaping the stream-channel and/or floodplain.
- **Passive Restoration:** Allow river to recover using its own inputs and energy. This focuses on long-term corridor protection through conservation and the planting of shrubs or trees that will strengthen existing channel buffers.
- **Conservation:** Protection of high-quality river reaches that provide outstanding recreation or ecosystem services through permanently protecting land from development.

The RCMP recognizes that the White River and its tributaries in Sharon have great diversity in form, function, and condition. Historical floods, defunct dams and various types of human land use in the river corridor have all left a lasting imprint on the morphology and stability of the main stem and tributary channels. In order to understand how to sustainably manage these channels over the long-term, a historical perspective of the causes of current day conditions is very important.

The White River main stem is still adjusting characteristics such as width, depth, and form to the following historical impacts:

- Aggradation of sediment in the valley due to settlement and deforestation that occurred during the 1700s and 1800s

- 1927 failure of the Sharon Dam and other in-channel structures used during log drives
- The unparalleled erosive forces of 1927 flood and impacts from Tropical Storm Irene in 2011

Recognizing this, the RCMP recommends the following watershed-scale and site specific management actions:

- Implementation of Fluvial Erosion Hazard Areas (see below) for the entire Town of Sharon (main stem and tributaries)
- Protection of specific areas of river corridor along the main stem that are more prone to lateral adjustments. (See the River Corridor Management Plan report for details)
- Buffer plantings along areas of the main stem to improve stream bank shading and cover for fishes.

Areas subject to fluvial erosion hazards can experience changes that range from gradual stream bank erosion to catastrophic channel enlargement, bank failure, and a change in the stream's course. Fluvial erosion hazards are due to naturally occurring stream channel adjustments. Through the River Corridor Plan, FEH areas were identified and mapped in accordance with accepted state fluvial geomorphic assessment and mapping protocols on Broad Brook, Elmer's Brook, Quation Brook, and Fay Brook.

The White River and its tributaries have a high degree of natural variability in form due to natural changes in slope and valley formation. The presence of natural bedrock outcrops along these channels limits severe erosion in many areas that might otherwise occur due to the following historical impacts:

- Road encroachment on the corridor and channel straightening in areas with high agricultural land use;
- Removal of native woody vegetation along the banks and buffers;
- Undersized culverts and bridges that severely constrict channel forming flows and interrupt the transport of wood and sediment down the channel network.

The RCMP recommends the following management actions:

- Replacement or retrofit of culverts and bridges that are currently incompatible with geomorphic stability and/or disrupting aquatic organism passage
- Buffer plantings where agricultural land use and severe channel migration has degraded aquatic habitat in the corridor
- Easement and conservation of areas that have excellent aquatic habitat

### **White River Recreation**

Interest in and use of the White River and its tributaries as an outdoor recreational resource has increased dramatically. Due to an awareness of health hazards associated with pollutants, clean-up programs conducted by the state and federal governments and environmental groups have changed the function of the river from a dumping ground into a major recreational resource. The White River now provides excellent opportunities for water related sports. In spite of the general trend for increased recreation

involving the White River, Sharon residents and visitors are in danger of losing recreational and visual access to the River. Primary causes for this include subdivision of riverfront property, posting of riverfront land, closing of access points due to fear of liability, and occasional abuse of existing public accesses. Because of these conflicts and others, river corridor planning must be careful to address and develop equitable programs to balance the needs of the private landowner with those of the public.

Given historic and present trends to locate major land uses in river valleys, there is an increasing risk of conflict between river recreational opportunities and land development activities. The agricultural industry is facing difficult times, placing additional pressures for land use changes along the river, with resulting loss of scenic beauty, rural character, and environmental quality as described in this Plan. Depending upon the nature and magnitude of these changes, a loss of rural character, environmental quality and scenic beauty could be the result. Sharon residents and taxpayers have clearly expressed a desire and need to protect these resources.

### **Riparian Buffers**

Riparian buffers are the trees, shrubs, or vegetative grasses growing along the banks of rivers or streams that provide a transition zone between water and land use, maintaining stable, well-vegetated shorelines which decrease erosion. Buffers are also complex ecosystems that provide wildlife habitat, filter polluted runoff, and improve the stream communities which they shelter. There are many benefits of riparian buffers including: maintaining shading along streams and ensuring cooler water temperatures; slowing overland runoff, permitting the buffer to filter out and break down sediments, nutrients, pathogens, and toxins before they reach surface waters. Maintaining stable, well-vegetated shorelines decreases erosion; improves habitat for fish, other aquatic life forms, and wildlife species; and helps to protect residents from flood hazards.

The Town of Sharon is concerned about loss of property and destabilization of banks, due to increased soil erosion, increased runoff of pollutants, higher water temperatures, loss of fish or wildlife habitats, and loss of recreational opportunities.

## **B. Flood Hazard Areas and Floodplains**

Floods are inevitable and uncontrollable natural events which occur sporadically and affect lands adjacent to watercourses. It is therefore in the public interest to plan for floods, and to implement land use strategies which will protect these areas and minimize the risks to public health, safety, and property.

Floodplains, lands adjacent to watercourses, are periodically inundated by heavy rains or during spring thaws. Their soils are porous and can absorb considerable water before reaching flood stage. Floodplains make excellent agricultural land but are poorly suited for development, because of their propensity for flooding. Sharon has 376 acres of mapped floodplain, which is roughly 1% of the community's total land area. An additional 247 acres of mapped river corridor area (see below) are outside of the mapped floodplain.

Vermont has experienced more than seventeen statewide and regional floods since 1973. All but one of these were declared federal disasters, and economic losses were significant. Public interest dictates that

every reasonable attempt should be made to avoid or reduce exposure to flood damage. The primary purpose of the River Corridor Plan project was to establish long-term stability that promotes a healthy river environment and protects appropriate land uses.

### **National Flood Insurance Program**

Under the provisions of the National Flood Insurance Act (1968), the Federal Emergency Management Agency (FEMA) has conducted a series of evaluations and hydrologic engineering studies to determine the limits of flood hazard areas along streams, rivers, lakes, and ponds. These areas are generally representative of the 100-year base flood, meaning that the flood level has a 1% chance of being equaled or exceeded in any given year. The calculations do not take into account the impact of ice dams or debris, and may, therefore, actually underestimate the areas which are subject to flooding damage.

FEMA has prepared a Flood Hazard Boundary Map for the Town of Sharon, which includes flood hazard levels for the White River and for major streams and ponds. This map is on file at the Town Office.

FEMA also administers the National Flood Insurance Program (NFIP) which provides flood hazard insurance for property owners in affected areas. In 2014, federal legislation eliminated subsidized flood insurance rates. New development will now pay actual flood insurance costs. The annual cost of flood insurance for existing development will rise on a yearly basis until actuarial rates are reached. In many cases, the cost of flood insurance on a home will be greater than its property taxes. In order to qualify for federal flood insurance, towns must adopt and retain a bylaw to control land development within these areas. Minimum standards must be included and approved by FEMA.

Two Rivers-Ottawquechee Regional Commission has identified approximately 36 buildings (including 30 residences and 6 commercial buildings) as being located within Sharon's mapped flood hazard areas. As a prerequisite to financing a mortgage, lending institutions require that flood insurance be purchased on property subject to flooding.

Sharon has adopted a Flood Hazard Bylaw that prohibits new development within the mapped Flood Hazard area and the mapped River Corridor area. Existing development is limited in terms of potential expansion.

### **Fluvial Erosion Hazard (River Corridor) Areas**

Much flood damage in Vermont is associated with stream channel instability, also known as the fluvial erosion hazard (FEH) or River Corridor area, as opposed to inundation related losses. This is a reflection of much of Vermont's natural geography (steep, relatively narrow valleys) and its man-made landscape consisting of agricultural land uses, highway infrastructure, private residences and commercial properties. River channels that are undergoing an adjustment process as a result of historic channel management activities or floodplain encroachments oftentimes respond catastrophically during large storm events.

Historically, landowners and local government have relied on FEMA standards and the flood hazard boundary maps provided through the National Flood Insurance Program (NFIP) to determine areas within river corridors susceptible to flood damage. The maps are also used to delineate the allowable (floodway) limits of river corridor encroachments and human land use investments. However, the NFIP maps address only inundation issues applying a water surface elevation based standard. For this reason the NFIP maps

are often inadequate as an indicator of flood hazards, especially erosion. The NFIP standards do not recognize the danger present in unstable channels which may be undergoing a physical adjustment process. The stream bed may be eroding or it may be actively aggrading due to erosion occurring upstream.

The NFIP standards often allow for significant encroachment within floodplain areas and river corridors that may prevent the stream from ever reestablishing its stability. Special mapping and geomorphic assessments can identify FEH areas along rivers, more comprehensively defining high-hazard areas. The White River in Sharon has mapped fluvial erosion hazard data through the RCMP. FEH areas were also identified and mapped in accordance with accepted state fluvial geomorphic assessment and mapping protocols on Broad Brook, Elmer's Brook, Quation Brook, and Fay Brook.

### **C. Groundwater and Surface Water**

Sharon's water resources include aquifers (groundwater) and surface waters. The high value associated with the White River has an economic benefit to the residents and businesses in Sharon. With no municipal water systems for most residents, groundwater quality and availability is important.

The Vermont Agency of Natural Resources, in cooperation with federal and other state agencies, has evaluated aquifer recharge areas serving systems involving 10 or more connections or 25 or more people. These recharge areas are acknowledged and are recognized as being important to protect. Land developments that are potential threats to water quality and aquifer recharge areas shall not be located in these areas.

In recent years, underground fuel storage tanks have been identified as major threats to water quality. Studies conducted by the U.S. Environmental Protection Agency have shown that the average fuel tank is likely to leak within 15 years of installation. To lessen the risk of contamination, the Vermont Agency of Natural Resources has regulations to monitor underground tanks with a capacity of 1,100 gallons or more. Tanks in excess of this capacity must be registered with the Town. In addition, replacement of underground tanks is subject to rigid state and federal standards.

### **D. Wetlands**

Wetlands are ecologically fragile areas and are considered part of the interface between land and water. How these lands are managed has a direct bearing on the quality and quantity of water resources.

The Vermont Water Resources Board estimates that wetlands comprise less than five percent of the surface area of Vermont. In addition to being Vermont's most productive ecosystem, wetlands serve a wide variety of functions beneficial to the health, safety and welfare of the general public, including the following:

- retaining storm water run-off, reducing flood peaks and thereby reducing flooding;

- improving surface water quality through storage of organic materials, chemical decomposition and filtration of sediments and other matter from surface water;
- providing spawning, feeding and general habitat for fish;
- providing a wide diversity of habitat for wildlife and protection of rare, threatened or endangered species of plants and animals; and
- contributing to open space character and the overall beauty of the rural landscape.

In 1986, Vermont adopted legislation for the protection and management of wetlands (10 V.S.A., Chapter 37). Determination of whether a wetland merits protection is based on an evaluation of the extent to which it serves the general functions outlined above. Wetlands rules establish three classes of wetlands, categories that determine the necessary level of protection. Class 1 and Class 2 wetlands are significant wetlands and are regulated. Class 1 wetlands are wetlands designated by the Vermont Water Resources Board as exceptional or irreplaceable. Class 2 wetlands are significant and are sometimes contiguous to Class 1 wetlands. Class 3 wetlands are not regulated by the Vermont Wetland Rules, but can be protected by other regulations or laws.

Under the Rules, if land development can be expected to impact a Class 1 or 2 wetland, such activity cannot commence unless the Vermont Agency of Natural Resources first grants a Conditional Use Determination (CUD). A CUD will be granted when it is determined that the proposed use will not have an undue adverse impact on the function of the wetland. In many cases, such approvals are granted with conditions to mitigate impact.

For Sharon, the most significant wetlands have been mapped and are included as part of the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service. These wetlands have been delineated on USGS topographic maps, and by reference are made a part of this Plan. There are a total of 267 acres of mapped wetlands in Sharon. Although not mandated by law, towns are responsible for undertaking studies and making recommendations on wetlands protection and identification. It is important to note that future investigations of wetlands within Sharon may result in additional areas being determined as significant or important for conservation.

## **E. Flora, Fauna and Natural Communities**

In Sharon, there are a broad range of communities that exist in the older forests, early successional forests, open fields and valley floors. The breadth and diversity of wildlife and plant communities indicate a healthy, thriving ecosystem. Yet, natural communities are usually strongly affected by the surrounding environment. Plants respond to soil structure and chemistry, hydrology, and climate. The effects of unmanaged development can have a negative impact on plant communities, which in turn will harm the overall ecosystem in the area affected. Good management practices, such as requiring developers to locate their projects in less sensitive areas, maintain buffer areas and protect against silt runoff from excavating, are a few of the ways that these communities can be maintained.

Sharon's fields, forests, wetlands and streams provide habitat to a diversity of flora and fauna. Although nearly all undeveloped land in the town provides habitat for these plants and animals, there are some areas which provide critical habitat that should remain intact. These areas include wetlands, vernal pools, and



deer-wintering areas and ecotome (the edge transition zone between two cover types, such as field and forest). Development or logging in or adjacent to these areas should consider wildlife implications during the planning process. Wildlife is one of the areas primary attractions providing many citizens of Sharon with direct and indirect livelihoods from tourism and direct harvest of wildlife.

Wintering areas are an important habitat requirement for deer during the critical months when snow depth and cold climate threaten their survival. Typically these areas consist of mature softwood stands at low elevations or along stream beds, which provide cover and limit snow depths. Southerly facing slopes are also beneficial due to good sun exposure and may be used even in areas of limited softwood cover. More specific factors, such as the percent of canopy closure, species of softwoods, and stand age also figure into the quality of the wintering area. The wintering areas shown on Map 5 will be protected from development and other uses that threaten the ability of this habitat to support deer. Sharon has approximately of 2562 acres (9% of Sharon’s total acreage) of mapped deer wintering yards.

## **F. Habitat Protection**

Wildlife habitat contributes to the Town’s interests in its natural heritage, identity, and working landscape. These lands represent much of what makes life in Sharon enjoyable. Further, they provide ecological functions for fish, wildlife, plants, and their ecosystem, and are extremely valuable connections for people to enjoy and appreciate the land and its abundant resources.

Wildlife management requires management of human activities around animals as much as the management of animals around human activities. Managing for specific species is not as desirable as managing for the entire ecosystem supporting the species. Parochial wildlife management programs usually manage for one species at the expense of others, while a more ecological approach ensures healthy habitat for all components of the ecosystem. The Vermont Non-Game and Natural Heritage Program has identified several sites in Sharon that are habitats for rare, threatened or endangered species. Large tracts of forest land, riverines, floodplains, and cliffs are natural communities for many habitats. Larger developments that trigger the Act 250 review process are reviewed for conflicts with these sites.

There comes a point where a species cannot use seemingly adequate habitat because of adjacent development. While certain strategies may lessen the impact on habitat, planners and developers should keep in mind that almost every development will affect the ecological balance. It should be noted, however, that high density or intensive land uses are more likely to have a negative impact on the quality of wildlife habitats.

Most important when considering development and its impact on wildlife is the concept of habitat fragmentation. Forests provide habitat to a diverse population of wildlife, which is negatively impacted when forested land is fragmented through development. Forest fragmentation affects water quality, fish and wildlife populations, and the biological health and diversity of the forest itself. When many small habitat losses occur over time, the combined effect may be as dramatic as one large loss. Forest fragmentation can disrupt animal travel corridors, increase flooding, promote the invasion of exotic vegetation, expose forest interiors, and create conflicts between people and wildlife. Habitat loss reduces the number of many wildlife species and totally eliminates others.

To help mitigate the effects of human population growth and land development, many scientists and conservationists urge governments to establish protected corridors, which connect areas of important wildlife habitat. These corridors, if planned correctly, allow wildlife to move between habitats and allow individual animals to move between groups, helping to restore or maintain genetic diversity that is essential both to the long-term viability of populations and to the restoration of functional ecosystems. Because of its generally low population density Sharon maintains a substantial amount of good quality wildlife habitat.

The Sharon Conservation Commission is a participant in the Linking Lands Alliance (LLA). The LLA is a grassroots organization, in partnership with the Vermont Fish and Wildlife Department that is mapping and planning wildlife habitat connectivity in an 11 town region. Habitat blocks have been mapped for the Town of Sharon and are shown on Map 6, attached to this Plan.

Specifically, we have four large areas of undeveloped land that are of special importance:

- the land around the state Wildlife Management Area, and Billings Hill and Howe Hill in the southwest part of town
- 1,600 acres on Quimby Mountain
- the land east of Downer Forest including Johnson’s Pond, off Beaver Meadow Road

The fact that Sharon has these large blocks of undeveloped land is significant. Few towns in the region have this resource. Forest land like this allows larger mammals to thrive and reproduce.

Contiguous forests support sustainable working lands, contribute to our natural and cultural heritage, and maintain options and choices for future generations in Sharon. To this end, we will work to inform landowners of these values and offer assistance for any actions they may take that are in keeping with Sharon’s conservation interests.

Sharon recognizes the value of working lands to the regional forest products economy and to the town’s and region’s ability to conserve and provide stewardship for its natural heritage of fish, wildlife, plants, and ecological systems. Active forestry, the harvesting of trees according to best management practices, is beneficial to wildlife habitat and helps maintain the connections between working landscape and wildlife habitat.

Nearly all open space provides habitat for game and non-game species. There are, however, some areas in Sharon which provide critical habitat that should remain intact. These areas include wetlands, deer yards edges (the transition zone between fields and forests), large blocks of contiguous habitat, connecting corridors, and lands that support significant natural communities and rare, threatened and endangered species. Large tracts of forest land, floodplains, and cliffs are also natural habitats for wildlife.

### **White River Wildlife Management Area**

The 623 acre White River Wildlife Management Area on the south side of the White River is owned by the Vermont Department of Fish and Wildlife. The Wildlife Management Area is steep, rocky land that is difficult to access. The Area is forested with a mix of red and sugar maple, yellow birch, beech, and hemlock trees; the timber rights on the land are privately owned. The river-bottom lands are a calcareous

(calcium carbonate, calcium, or limestone), riverside seep, natural community with several unusual plants. Wildlife common to the Area are bobcat, bear, white-tailed deer, gray squirrel, coyote, mink, otter, raccoon, turkey, and ruffed grouse; the White River supports bass, walleye, brown and rainbow trout, and Atlantic salmon. Fishing and trapping are allowed in the Wildlife Management Area; any other uses are allowed subject to the restrictions listed in the Agency of Natural Resources' Public Use Policy for Wildlife Management Areas.

## **G. Mineral Resources**

The availability of gravel, sand, crushed rock, and other materials is essential for the development industry as well as state and local highways. In spite of this, public and private interests are sometimes in conflict over utilization of the resource. It is in the interest of the Sharon business owners and residents to enable use of these resources when such uses do not significantly inhibit or conflict with other existing or planned land uses, or conflict with other stated goals in this Plan.

Issues incidental to mineral extraction include erosion, creation of excessive dust and noise, increased truck traffic through residential neighborhoods, surface and groundwater contamination, degradation of the site or wildlife habitat, loss of scenic character in the immediate area, and undue deterioration on state and town roads. Mineral extraction facilities that locate in Sharon must be properly managed and have an effective recovery plan.

## **H. Land Protection Strategies**

Methods of protecting lands are varied. In general, there are two ways to encourage the preservation of culturally and naturally significant areas: voluntary and regulatory. Voluntary methods allow landowners to:

- Preserve land by placing restrictions on its use, through such tools as conservation easements or mutual covenants.
- Transfer land to a conservation organization (such as the Vermont Land Trust) through donation.
- Sell or donate land with conditions attached, like deed restrictions or conditional transfers.

Sharon could become an active participant in land conservation through the creation of a conservation fund. Generally funded by taxes on a yearly basis, the Conservation Commission could use this fund to purchase land outright, or to assist a land conservation organization with the purchase of a conservation easement. It is safe to assume that there will never be sufficient funding for land protection strategies to acquire conservation easements or ownership of all unprotected areas of value.

Regulatory methods use zoning and/or subdivision rules to regulate the location, density and design of development within selected areas to minimize harmful impacts while allowing for a reasonable level of development. Regulatory methods include:

- **Overlay Districts** - The creation of map overlay districts is the most common method of regulating specific areas for the purpose of protecting wildlife and other natural resources. Overlay districts can be used to exclude development on or to impose resource protection or conservation standards within overlay areas. These districts can be used to protect many types of resources.
- **Resource Protection Districts** - Protect wildlife resources and open space areas for resource-based uses such as farming, forestry, recreation from incompatible development.
- **Large Lot Zoning** - Large lot zoning refers to the designation of a very large minimum lot size within certain zoning districts to accommodate resource-based uses, such as farming or forestry, or to require a pattern of very scattered, low-density development to limit, for example, impervious surfaces and protect surface and groundwater quality.
- **Fixed Area & Sliding Scale** - Fixed area and sliding scale zoning are two zoning techniques (typically applied in association with subdivision regulations) that are used to differentiate allowed densities of development from district lot size requirements.
- **Conservation (Open Space) Subdivision Design** - Conservation or open space subdivision design is a process wherein subdivisions are intentionally designed to protect rural character and open space.

Each of these methods has its own set of benefits and pitfalls and all of them should be thoroughly evaluated before they are implemented. However, there are many examples of successful regulatory land protection strategies in Vermont. The key to success is to ensure that the community as a whole supports the regulations. At present, Sharon has subdivision regulations but no zoning.

## I. Goals, Policies and Recommendations

### Goals

1. To protect the Town against loss of rural character, environmental quality and scenic beauty that could result from land use changes along rivers, streams, and brooks.
2. To preserve, restore, and manage Sharon's river and streamside resources.
3. To enhance and maintain wise use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land, and protect these natural resources.
4. To prohibit construction of new buildings and structures in designated flood hazard areas.
5. To regulate existing land use activities to reduce the potential for flood damage.
6. To minimize the loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.
7. To retain the Town's eligibility for and participation in the National Flood Insurance Program.
8. To maintain maps which reflect as accurately as possible the flood hazard areas, to assist in appropriate land use decisions.
9. To identify and protect significant wetlands and the values and functions which they serve, and in so doing to minimize loss of such wetlands.
10. To identify and encourage land use development practices that prevent or mitigate adverse impacts on significant wetlands.
11. To maintain or enhance the quality and quantity of ground and surface water resources.

12. To allow use of groundwater resources by new development in a manner that protects the public right to adequate quality and quantity of the resource.
13. To allow multiple and balanced uses of ground and surface water while maintaining or improving quality and quantity.
14. To consider the impact and effects on ground and surface water resources related to proposed or existing uses of land.
15. To sustain the natural diversity of flora and fauna found in Sharon.
16. To maintain or improve the natural diversity, populations, and migratory routes of wildlife.
17. To encourage sport and subsistence hunting and fishing in accordance with seasons and bag limits determined by the State Department of Fish and Wildlife.
18. To support extraction and processing of mineral resources only where such activities are appropriately sited (taking into account aesthetics and compatibility with this Plan), managed, and where the public interest is clearly benefited.
19. To maintain or enhance the natural diversity and population of wildlife, including natural predators in proper balance.
20. To maintain or increase populations of rare, threatened, and endangered species in Town.
21. To recognize the habitat value of large blocks of contiguous forest.
22. To maintain or improve the natural diversity, population, and migratory routes of fish.
23. To allow sport and subsistence hunting of ecologically sound intensities to provide continued survival of the species.
24. To conserve and provide stewardship of existing relatively large patches of contiguous forest habitat within the town.
25. To ensure the viability of working lands associated with a sustainable forest products economy due to their significant contribution to the economy and our natural heritage.
26. To ensure that animals and plants are able to move freely between conserved lands and lands under long-term stewardship, contiguous forest habitat, and other important habitats, land features and natural communities.
27. To meet the habitat requirements for large mammal survival by increasing the acreage of connecting lands.
28. To ensure the conservation and proper stewardship of significant natural communities found within Town.
29. To enable appropriate use of mineral resources.

## **Policies**

1. It is a policy of the Town to implement ~~a~~the recommendations of the Sharon River Corridor Management Plan to balance the needs of private landowners with those of the public.
2. Given the statewide recreational and natural resource value of the free-flowing White River, hydropower development on the river is inconsistent with this plan.
3. Structural development or intensive land uses are not permitted in significant wetlands, within buffer zones to significant wetlands, within the limits of flood hazard areas, and in the Fluvial Erosion Hazard (FEH) areas.
4. Developments adjacent to wetlands shall be planned so as not to disturb wetland areas or their function. Mitigating measures to protect the function of a wetland are acceptable.
5. It is a policy of the Town that development within stream buffer areas is prohibited.

6. It is the policy of the Town that a vegetated buffer will be maintained adjacent to the White River and all other streams, measured horizontally from the top of the stream bank.
7. It is the policy of the Town to discourage the cutting of trees and other vegetation on banks of rivers and streams. Cutting of selected trees shall be limited and shall include plans which ensure that trees are allowed to regenerate, stumps are left with root zones intact, and a duff layer and tree canopy are maintained.
8. It is the policy of the Town to discourage clearing dead or undercut trees from stream sides or stream channels because of potential adverse impact on habitats. Removal of tree snags from a stream channel should only be undertaken when the snags clearly represent a hazard.
9. It is the policy of the Town to re-vegetate stream sides, including rip-rapped areas, with native shrubs, trees, and grasses. For stream bank stabilization, re-vegetation should cover as much of the vertical profile as is practicable. Riprap and similar retaining structures should be used only to cover the lower portion of the profile, and only when bioengineering techniques may not adequately prevent significant loss of land and/or property.
10. It is the policy of the Town to protect vegetation by minimizing damage to streamside soils, restricting livestock access to stream banks and excluding dumping, filling, and operation of machinery from the riparian corridor.
11. It is the policy of the Town to manage human access points to the White River and its tributaries to prevent soil erosion, loss of vegetative cover, and unnecessary disruption of riparian habitats. Foot access paths shall not be excessively wide, or steep (greater than 15% slope).
12. It is the policy of the Town to limit encroachments on the riparian corridor by limiting and by careful siting and setback of roads, paved paths, parking lots, buildings and structures where streamside vegetation exists or has reasonable potential for restoration and maintenance. The construction of new bridge crossings shall be discouraged unless no feasible alternative exists.
13. The following principles shall be observed for any new development adjacent to riparian buffers:
  - provide for sufficient on-site pervious surface cover so that runoff onto adjacent buffers is minimized;
  - limit lot size and density levels of development so that the riparian buffer is not adversely impacted;
  - cluster development in such a manner as to concentrate any new construction away from the riparian buffer and on land with less conservation value;
  - provide for open space and non-commercial recreational use; and
  - prohibit uses with a high potential for pollution in buffers including gas stations, bulk fuel storage facilities, hazardous materials handling facilities, and other commercial development.
14. It is the policy of the Town that the preferred uses for flood hazard areas shall be for open space, greenbelts, and non-commercial recreational or agricultural uses.
15. It is the policy of the Town that any land use activity (filling, or removal of earth or rock) within flood hazard areas which may result in increased or diverted flood levels or increased risk to adjacent or other riparian areas shall be prohibited.
16. It is the policy of the Town that existing buildings within such areas may be improved or modified (though not enlarged) provided that the lowest floor is one foot above base flood elevation. All development is subject to review by the DRB.

17. It is the policy of the Town to enable utilities or facilities serving existing development (e.g. water lines, electrical service, waste disposal systems, roads, and bridges) to be located within these areas only when off-site options are not feasible and provided that their placement is deemed to be relatively protected from flooding damage.
18. Aquifers and surface waters shall not be significantly depleted. Water withdrawals by one group of users shall not interfere with the reasonable use of aquifers and surface water by others, and existing users shall not be adversely affected.
19. It is the policy of the Town to protect headwaters and the ecosystems they sustain from risk of degradation. To ensure high water quality, these areas shall be principally maintained for forestry and recreational uses.
20. It is the Town's policy to avoid development and other encroachments – including fill, dredging, new structures, parking areas, infrastructure and utilities within mapped fluvial erosion hazard areas. Only forestry, agriculture, passive recreation, functionally dependent facilities, limited improvements to existing structures and facilities, and state-recommended channel management activities are allowed within mapped fluvial erosion hazard areas, subject to municipal review and approval.
21. It is the policy of the Town to consider pollution, noise and vehicle traffic as part of the decision making process when reviewing proposed gravel extraction projects.
22. It is the policy of the Town that existing and proposed mineral extraction and processing facilities shall be planned, constructed, and managed:
  - So as not to adversely impact existing or planned uses within the vicinity of the project site
  - To not significantly interfere with the function and safety of existing road systems serving the project site
  - To minimize any adverse effects on water quality, fish and wildlife habitats, viewsheds and adjacent land uses
  - To reclaim and re-vegetate sites following extraction
  - To minimize noise impacts on adjacent uses including residential areas
  - To maintain the rural character of the Town
23. Development shall be designed and sited in a manner to preserve contiguous areas of active or potential wildlife habitat. Fragmentation of wildlife habitat should be avoided. On-site and off-site mitigation measures are supported.
24. Enable long-term protection of major habitats through conservation easements, land purchases, leases and other incentives.
25. Protect deer wintering areas and other critical habitats from developments and other uses that adversely impact the resources.
26. Development or logging in or adjacent to forested areas should consider wildlife implications during the planning process.
27. Wildlife corridors shall be protected or conserved from encroaching development and incompatible activities, such as road expansion or development of new roads, by restricting development in and around corridors.
28. Wildlife corridors shall be given high priority in considering lands for acquisition or other long-term conservation efforts.

29. Sharon supports all efforts, pursuant to the state of Vermont’s Endangered Species Statute or through other mechanisms, to conserve or otherwise protect rare, threatened and endangered species and the habitats necessary for their continued survival.
30. Commercial, residential, and industrial development should not occur within deer wintering areas.
31. Development may be permitted adjacent to a deer wintering area if consultation with the Vermont Fish and Wildlife Department determines that the integrity of the wintering area will be conserved.
32. The Planning Commission shall refer to the Vermont Fish and Wildlife Department’s 1999 “Guidelines for the Review & Mitigation of Impacts to White-tailed Deer Winter Habitat in Vermont” and require consideration by developers of the conservation principles established in those guidelines.
33. The town shall explore all reasonable and feasible opportunities to support and promote those lands that are greater than 25 acres in size and meet any of the following criteria:
  - the land is enrolled in the Vermont Current Use program;
  - the land is owned by persons willing to consider its sale and application of development rights;
  - the land is being managed in accordance with a forest management plan that has been reviewed and approved by a professional forester, wildlife biologist, or other appropriate and related professional; or
  - the land is owned by persons willing to consider other non-regulatory mechanisms that promote sustainable forest management or seek to otherwise conserve the lands.

## **Recommendations**

1. The Town should create more public access to the White River for boats.
2. The Town should take action to eliminate poison ivy and other toxic plants between the White River and Route 14 to enable better public access.
3. The Town should consider purchasing certain parcels of land along the White River that are unique assets for preservation.
4. The Town should purchase, trade land, or accept a donation of the VTrans storage facility along the White River to afford better public access to the river.
5. The Town should conduct a wetland study and make recommendations on wetlands protection and identification.
6. The Town should develop planning principles for the maintenance and enhancement of streamside resources consistent with this Plan.
7. The Town should adopt a Riparian Buffer bylaw.
8. Working with appropriate state or federal offices, the Town should update flood hazard data and FEMA maps.
9. The Town should notify owners of properties located in the flood hazard area about the availability of flood insurance to protect property subject to flooding.
10. The Town should create and adopt a groundwater resources protection overlay zone.
11. The Town shall carefully review and monitor land use activities which potentially threaten groundwater quality to prevent degradation of groundwater.



12. The Town should consider the corridor conservation, erosion hazard, and habitat restoration projects recommended by the River Corridor Management Plan and implement where appropriate.
13. The Town should continue to participate in the Linking Lands Alliance and implement wildlife habitat recommendations.
14. The Town should conduct additional field inventories to locate unmapped significant natural communities in Sharon.
15. The Town should adopt regulations governing the extraction of earth resources.

## **XII. Historic and Archeological Resources**

Sharon has a wealth of historic resources: buildings, bridges, districts and landscapes which have survived earlier periods and which serve as a visual record of the Town's history.

According to the results of the Town Survey in 2000, historic preservation ranked fourth among respondents as one of the ten most important land use concerns. In addition, of the fourteen community characteristics enjoyed most by residents, rural character ranked fourth highest. The definition of rural character includes not only undeveloped land, but also buildings arranged on the landscape in a comfortable and familiar fashion. This Plan notes that conservation and preservation of buildings and landscapes contribute to maintaining the present rural character of the Town, as defined in this Plan.

Sharon Village, with its stores, homes, and public buildings and lands, provides a focal point for the community. The Village remains the place where residents may shop, attend meetings, church, or school, or tend to business at the Town Office.

The landscape of the Town and the White River valley is an economic as well as an aesthetic asset. Tourists come to the Upper Valley because they are attracted to our scenery and the quality and values of rural life. Tourism is a major industry in Vermont and has particular meaning for those towns, like Sharon, that are located near the main transportation route. The challenge for Sharon is to maintain those parts of the town that have historical value, and which help give the town its character, by planning for the development that is a result of its location.

### **Sharon Historical Society**

The Sharon Historical Society is a non-profit tax-exempt organization established in 1991. The Society's primary purpose is to collect and preserve items of historical merit, descriptive of the history of Sharon. Trustees have been active in collecting artifacts and other items valuable to the community.

The Society is housed in the former Sharon Town Hall and is open to the public. Current programs include improvements to the building, and compiling an oral history from reminiscences of some of the older residents.

The Society is doing an excellent job of recording the history of the Town and there are no immediate issues or needs outstanding at this time.

### **A. Historic Properties**

The Vermont Division for Historic Preservation surveyed Sharon's historic properties in the early 1970s. The *Vermont Historic Sites and Structures Survey* lists two districts, two bridges, and seven properties in Sharon which are exemplary for their historic, architectural, or engineering significance, and are on the Vermont Register of Historic Places. The Survey and State Register are used by the Division in its legally mandated reviews of projects requiring Act 250 permits and those involving state or federal funds, licenses, or permits, and in assisting towns and individuals in historic site planning.

The Division predicts that another two hundred sites or structures in Sharon are possibly eligible for the State and National Registers, but to date these have not been surveyed. These sites are also eligible for nomination to the National Register of Historic Places. In addition to honoring their properties, homeowners listing on the National Register protects them from adverse impact from all projects which are federally funded, licensed, or permitted.

Sharon's two historic districts are the Village Historic District, with twelve buildings, and the Day Farms Historic District, with three buildings. Appendix B includes the Historic District maps developed by the State in 1973 with a list of the individual buildings in both Districts.

## **B. Historic Districts**

The **Sharon Village Historic District** centers around the Village common at the junction of Routes 132 and 14. The Village Area is defined by public and private buildings which illustrate the significance of the Village as the historic center of the Town's early religious, political, residential, and commercial development.

The northern boundary of this District is a line parallel to and 500 feet north of the centerline of VT Route 14. The eastern boundary is a line parallel to and 500 feet east of the centerline of VT Route 132. The southern boundary is a line contiguous with the far bank of the White River. The western boundary is a line parallel to and approximately 500 feet west of the centerline of VT Route 132.

The **Day Farms Historic District** centers around District School #3, near the intersection of Route 132 and Beaver Meadow Road. The Day Farms Historic District's open agricultural setting is typical of rural Vermont 19<sup>th</sup> century farm communities centered around a district schoolhouse.

The northern boundary is a line parallel to and 500 feet north of the centerline of VT Route 132 and Beaver Meadow Road. The eastern boundary is a line parallel to and 300 feet east of the centerline of VT Route 132 and Carpenter Road. The southern boundary is a line parallel to and 200 feet south of the centerline of VT Route 132 and Beaver Meadow Road. The western boundary is a line parallel to and 800 feet west of the centerline of VT Route 132 and Carpenter Road.

## **C. Individual Historic Properties and Structures**

- *Drown House* - Route 14 - an outstanding example of a 1-½ story, wood frame, Greek Revival style "classic cottage".
- *Lake Mitchell Trout Club* - Mitchell Pond - an outstanding example of vernacular shingle style architecture. The shingle style was popular in the wealthier resort communities of the eastern United States, but was not common in Vermont.
- *Henry Lewis House* - Route 14 - an excellent example of a 2-½ story brick Federal style house with a front gable elevation.

- *Richard Moran House* - Route 14 - an unusual example of a 1-½ story, wood frame house with a five bay center entrance, and a front gable elevation which is of an earlier date.
- *Mildred Northrup House* - Route 14 - an excellent example of a 1-½ story brick Federal style house with a front gable elevation.
- *Old Grange Hall (now the Seven Stars Center)* - Route 14 - an excellent example of a , Greek revival church.
- *Parker House* - VT Route 132 - an outstanding example of a 1-½ story, wood frame, center chimney “Cape Cod” house.
- *Town Highway #17 Bridge* - Fay Brook - this bridge is significant as a representative example of railroad masonry arch construction, typical of the bridges built by railroads to carry streams under their rights-of-way.
- *Town Highway #3 Bridge* - White River - the bridge over the White River is significant as a representative example of bridges built as a result of the 1927 flood. It represents an engineering effort of heroic proportions, and is listed on the Vermont Register of Historic Bridges.

**Historic Easements and Covenants** – In some cases, preservation of historic buildings or structures may be accomplished through easements or certain rights to a property, which are granted to an entity established for the purpose of ensuring their maintenance. The Vermont Division for Historic Preservation, the Preservation Trust of Vermont, and similar organizations may grant easements for preservation purposes. An easement is an agreement made strictly between the property owner and the easement holder. Covenants may also be used to maintain historic and architectural values of properties or sites. Covenants are similar to easements, but are strictly contractual obligations which grant no legal interest in the property.

**Revolving Loans and Grants** – Preservation organizations, including the Preservation Trust of Vermont, offer funds at low rates to qualified owners for the restoration or improvement of historic resources. The loans are repaid to a fund which is then made available for other properties. Several charitable foundations and trusts also offer loans to property owners or historic preservation organizations. Information on these programs may be obtained from the Vermont Division for Historic Preservation.

**Scenic Highways** – Vermont’s country roads constitute an important statewide scenic resource. In 1977 the Vermont Legislature enacted a bill “to preserve through planning the scenic quality of Vermont’s rural landscape”, with the goal of combining aesthetic and functional concerns. Through this law, town and state officials are granted authority to designate scenic roads in order to protect their character, which often derives from historic structures as well as stone walls, forests, mountains, pastures, rivers, and other natural features bordering the road. Designation of scenic roads enables a town to preserve the rural environs of its historic structures. A scenic road designation also stimulates pride in, and respect for, the existing landscape. There are currently no designated scenic roads in Sharon.

## **D. Goals, Policies and Recommendations**

### **Goals**

1. To preserve and enhance historic buildings and sites in the Town of Sharon.
2. To promote sensitive economic development in areas of historic value.
3. To support education and outreach to further the preservation of historic and archeological resources.
4. To seek funding for historic preservation.
5. To stimulate economic strength through preservation of historic and archeological resources.

### **Policies**

1. It is the policy of the Town that future development within or adjacent to historic buildings or sites be permitted only when the design of the project fits the context but does not detract from the dominant character of the immediate area;
2. It is the policy of the Town to discourage unnecessary destruction or removal of recognized or documented historic buildings, structures, or sites;
3. It is the policy of the Town to support restoration and adaptive use of historic buildings or sites when such projects do not diminish the distinguishing qualities of those buildings or sites;
4. It is the policy of the Town that public improvements such as bridge replacement or rehabilitation, street widening, roadway reconstruction, signage, utility distribution systems, and outdoor lighting be designed to avoid unnecessary degradation of historic buildings or sites. Such public investments shall be planned in consultation with local and state officials, including the Vermont Division for Historic Preservation, to ensure consistency with their planning objectives and programs.
5. It is the policy of the Town that for roads of significant historic value, improvements be undertaken with due consideration for the special rural historic landscape qualities inherent to the roadway and roadway fringe. Sharon's extensive network of roads is an integral scenic element of the countryside. These roads, particularly Class 3 town roads, are characterized by narrow gravel roadways, with diverse and contrasting natural features in close proximity. It is in the public interest to retain these roads.
6. It is the policy of the Town that archeological resources be recognized and supported as important links to the prehistoric and historic record of the town, and that they be accepted as key components of our heritage. No land development shall be permitted which results in the unnecessary loss or destruction of a significant archeological resource.
7. It is the policy of the Town to preserve outstanding historic areas and to discourage development which has an adverse impact on locally recognized historic resources. Development shall be designed to be compatible with the traditional patterns, scale, size, bulk, density, and form of existing buildings, structures, or sites.

### **Recommendations**

1. Historic resources of the Town of Sharon should be further inventoried, analyzed, and mapped and the resource inventory should include known archeological sites.

2. To determine the year that historic buildings were built and attach plaques with these dates to these structures.
3. To further identify, document, and evaluate historic buildings, and historic and archeological sites and landscapes which may be included on the National Register of Historic Places.
4. To evaluate the condition of the Old Town Hall and, if needed, seek funding to have the building restored, including energy efficient environmental controls.
5. To develop design guidelines for the review and preparation of development proposals as a means of ensuring the conservation of historic and cultural resources.
6. To consider National Register nomination for significant historic properties be considered.
7. Preservation of historic and archeological resources through easements or covenants should be encouraged.
8. Scenic Roads designation, including historic stone culverts and bridges, should be considered for the most appropriate rural roadways.
9. To develop a list of sites which have significant archaeological value
10. To encourage local townspeople or school children to write a history of the Town of Sharon.

## **XIII. Agriculture and Forestry**

### **A. Background**

Agriculture and forestry define the character of Vermont and in the past were major industries in the region. Changes in these industries have led to instability. The shape of Vermont agriculture and forestry are changing and the pressures for change come from both inside and outside the state. These changes pose difficult challenges, not just for landowners, but for all who desire a rural lifestyle and working landscape. And yet, opportunities for new and innovative farm and forestry businesses are on the rise. How we maintain the working landscape and support the agriculture and forest industries will have a long term impact on our landscape and our local economy.

### **B. Farm and Forest Land Issues**

#### **Land and Taxation**

An economic restructuring or a shift away from agriculture to the service and tourism industries has placed economic pressure on farm owners. The higher cost of owning land makes it difficult to rationalize conventional farming. Owners of forestland most often are faced with a tax bill on land that exceeds its economic value for timber production. This coupled with a need for house lots or development land has prompted landowners to place their land on the market.

#### **Current Use Taxation**

For farmland and forestland conservation to be successful, the pressures posed by the market value approach to taxation must be solved for both the landowner and municipality. One means to address this issue has been the Vermont Current Use Program administered by the State which sets the valuations on farm and forest land based on their productivity values rather than their development values. There are 12,362 acres of land in Sharon enrolled in the Current Use Program, this amounts to nearly 48% of all lands in Sharon.

### **C. Agricultural Trends**

An analysis of the United States Census of Agriculture data between 2002 and 2007 (2007 being the most recent data collected) shows that farming in Vermont is slowly shifting away from the larger scale farm that developed as a result of trends toward consolidation. Between 2002 and 2007, the number of farms in Vermont increased by 6%. The average size of farms decreased from 189 acres to 177 acres in the five years between ag censuses. This is most likely due to the fact that 37% of Vermont's farms in 2007 were considered "small-scale" farms that sell under \$2,500 in agricultural products per year. While the number

of small-scale farms continues to grow, these farms only produce slightly less than 3% of Vermont’s agricultural income.

Despite this decrease in farm size, over the past 10 years a growing movement in sustainable agriculture—involving increased local food production and consumption, value-added processing, and diversified farms—has taken off. In 2009, the State of Vermont passed legislation that created the Farm to Plate Investment program, part of which included the creation of the Farm to Plate Strategic Plan. In 2007, USDA data indicated the estimated agricultural revenue in Vermont to be \$673 million per year. That number increased to \$2.7 billion when food product output is also considered.

Many other businesses in Vermont depend on the “farm economy.” According to the Vermont Farm to Plate Strategic Plan (F2PSP) which was released in 2011, Vermont has at least 457 food processing establishments that employ at least 4,356 people and is the second-largest manufacturing sector employer in the state, behind computer and electronic products. In addition, Vermont has at least 263 wholesale distribution establishments that collectively employ at least 2,288 people. The farm-related food industry is clearly connected to the farm economy.

In Sharon, as in the rest of Vermont, the scale and style of farming has changed. The most recent Census of Agriculture (2007) reports that there are 27 farm operations in Sharon. Nearly 50% of these operations utilize more than 50 acres of land. Products grown or produced on farms in Sharon include hay, corn, maple syrup, fruit, Christmas trees, cattle, horses, chickens, pigs, sheep and goats.

The distinctiveness of the working landscape gives Vermont its beauty. Farms provide open space for wildlife habitat, scenic views and a connection to the land that is hard to find in other places. They also help our towns avoid sprawl and maintain small town and village settlement patterns. As such, to continue to receive the benefits farming has to offer, a community must encourage farming.

*For census purposes, a farm is defined as “a place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.”*

## D. Forestry Trends

Three primary trends have affected the region’s forestland and its productivity. First, forests and farms have been subdivided into small lots which threaten the economic viability of forestry. Development pressure in the region has relaxed since the early 1990s, but the economy is predicted to rebound and the trend of land moving out of forest use to other uses will continue, particularly in those areas where access and development conditions are suitable.

Funding of the Current Use Program has been identified by the Northern Forest Lands Council as vital to landowners keeping their patience, not over-harvesting the forests or opting for liquidation cutting of tracts. High taxes contribute to a low rate of return on timber sales, and have prompted some conversion to non-forest uses. Second, markets for timber and wood have been responsive to a glut of some products affecting prices, at least in the short term. While the numbers of mills in the region have declined, there



has been a move to new markets, one being an export demand for hardwood logs and another being a demand for pulpwood and other specialty types. For a state mostly known for hardwood, the demand for pulp has led to better managed forests because it is generally the lower grades or poorer cuts that are being used. Third, federal and state estate and inheritance tax laws have placed family landowners into financial predicaments where they need to subdivide or develop forest land in order to cover taxes. Current tax law bases estate values on the market value of land rather than at use value. By allowing land to be assessed on the basis of current use, family landowners are able to realize a more reasonable return on investment for long-term timber management.

Forest products continue to be a significant share of the region's manufacturing sector, although the way statistics are kept makes it hard to quantify. Overall, according to the Vermont Department of Employment and Training, jobs in the lumber and wood products industries have increased statewide. In looking at the Vermont forest products industry, it is worth noting that the industry, like agriculture, has virtually no impact in setting trends as it is a relatively small national producer.

A major long-term issue for the Vermont forest products industry is how to keep it from drifting further into the position of selling wood as a raw material without benefiting from the higher paying jobs that come from value-added wood products.

## **E. Sustaining Agriculture and Forestry**

Planning policy and implementation efforts should be directed at sustaining agriculture and forestry pursuits and not just conservation of the resource. This is not only because it is the best way to keep the land open, but also because agriculture and forestry are critical industries in the Town and region.

Just as there are a variety of interests, there are a variety of tools that can be used to conserve these resources. Some are directed primarily at sustaining agriculture, others forestry, some are regulatory in nature, others are compensatory, and others voluntary. It is in the public interest to encourage conservation groups, landowners, local officials, and policymakers to utilize all of these tools.

### **Conservation Easements**

Conservation easements are a common method used to ensure that the working landscape gets preserved. The Vermont Land Trust (VLT), Vermont's largest non-profit conservation organization, has conserved more than 590 parcels of land in agricultural use throughout the state, totaling 145,109 acres. Most land purchased with the intent of applying a conservation easement to it is funded, at least in part, by some form of grant from either state or private sources. As of 2014, the State of Vermont reports that there are 3716 acres of publicly and privately conserved land in Sharon. The use of conservation easements has both pros and cons for municipalities, they include:

#### **Pros**

- Easements are flexible; they can be written to achieve specific goals of the town involved.

- They are perpetual, and restrictions put on the conserved lands will remain in force even when the property is sold to a new party.
- They conserve scenic beauty and environmentally sensitive areas.
- Eased property remains on the tax rolls.

#### Cons

- Establishing an easement involves up-front costs, such as legal counsel, biological analysis, etc.
- There are long-term expenses involved with monitoring the easement.
- The easement holder is responsible for ensuring that the restrictions placed on the easement are followed.

The Sharon Planning Commission acknowledges that conservation easements are one potential solution to preserving the working landscape. Other strategies for preserving the working landscape can be found in Section H of chapter X, Natural Resources.

## **F. Farming, Forestry and the Economy**

In addition to preserving Sharon's working landscape and maintaining the community's aesthetic beauty, farming and forestry can have an economic impact. Vermont is within easy reach of millions of people in cities like Boston and New York City. Additionally, Vermonters are increasingly seeking locally-sourced, sustainably-produced farm and forest products. Fuel prices and draughts have led to an increased interest in food and energy security. Vermont is a national leader in innovative education programs based on local food, agriculture, and healthy eating. It is also widely recognized for its strong network of land trusts and other nonprofits that are models for conserving farm and forest lands.

There is already a growing mix of emerging entrepreneurs and long-time land-based businesses that are constantly evolving to stay competitive. They're producing maple syrup, biofuels, artisan cheese, specialty wood products, produce, breads, and other value-added items. It is in the best interest of Sharon to encourage the continued development of these industries and to foster local interest in these products. One way Sharon works to keep these businesses prosperous is to host a monthly farmer's market during the winter. The Sharon Farmer's Market provides opportunities for local farmers and craftspeople to sell their products and connect with local clientele.

## **G. Goals and Policies**

### **Goals**

1. Encourage the conservation, wise use, and management of the town's agricultural and forestry resources, to maintain its environmental integrity, and to protect its unique and fragile natural features.
2. Protect the Town's rural agricultural character, scenic landscape, and recreational resources.

3. To encourage the economic growth of agricultural and forest operations at a scale that is appropriate for Sharon.

## **Policies**

1. It is the policy of the Town that where contiguous areas of high-value farming or forestry exist, or have significant potential to exist, fragmentation of these areas into uses other than those incidental to agriculture or forestry should be discouraged.
2. It is the policy of the Town that where high value agricultural and forested land are identified, clustered or peripheral development is especially encouraged to protect such resources and prevent fragmentation and sprawling settlement patterns.
3. It is the policy of the Town that contiguous forest and significant agricultural areas should remain largely in non-intensive uses unless no reasonable alternative exists to provide essential residential, commercial and industrial activities for the Town's inhabitants.
4. It is the policy of the Town that the construction of utilities, roads or other physical modifications should skirt tracts of productive agricultural land rather than divide them.
5. It is the policy of the Town that farmers, loggers, and foresters should use Accepted Management Practices (AMP) and are encouraged to implement Best Management Practices (BMP) in their operations and to minimize point and non-point source pollution.
6. It is the policy of the Town to support the development of value-added farm and forestry products.
7. It is the policy of the Town to preserve recreational and scenic access by ensuring that at the completion of logging projects all roads are restored to their previous condition.
8. It is the policy of the Town to continue to support the Sharon Farmer's Market.

## **XIV. Land Use**

### **A. Current Land Use and Sharon’s Rural Character**

Sharon’s rural character is heavily influenced by its pattern of development, buildings and their relationship to the landscape, and the sense of community that comes from people living and working here. Current Land Use is shown on Map 1 attached to this Plan.

The beauty and rural character of the town are valued by residents, and are also attractive to tourists. Tourism has become Vermont’s second-largest industry, and tourists are attracted to Sharon and the Upper Valley because of its scenery and rural life style.

Because the Town of Sharon does not have protection that comes from a zoning or development ordinance, it is essential to define “rural character” with specificity for the purposes of review under Act 250.

Sharon is a small Vermont town, bisected by the White River, Interstate 89, Route 14, and the Railroad, which contains large tracts of contiguous woodlands. Development within Sharon Village is typical of small New England villages. Approximately 40 houses are built close together, with minimal setbacks from the road, and they share the Village with stores, a church, post office, library and the town green. Most homes in Sharon have been built along gravel roads.

The citizens of Sharon enjoy their town. The continued balance between the dense concentration of development in Sharon Village and the diffuse residential development of the areas surrounding the Village is important. Sharon Village is the center of our community life.

Because of the natural resources that exist in Sharon, there are abundant opportunities for outdoor recreation such as hunting, fishing, hiking, cross-country skiing, snowmobiling, horseback riding, swimming and others. The availability of these opportunities is tied to the rural character of the Town.

While the number of dairy farms has dwindled; (in 2007, there were only two working dairy farms in Sharon according to the US Census of Agriculture), there are 27 working farms in Sharon. These changes emphasize the need to identify and develop effective growth and land use development policies that will serve the long-term interests of the community, and help to maintain Sharon’s identity as a small rural town.

### **B. Overall Land Use Goals**

In formulating a future land use plan, consideration needs to be given to the existing settlement pattern consisting of the Sharon Village area, the surrounding low-density rural and agricultural areas, and large open spaces and forests.

Sharon’s overall goals for land use are:

1. Maintain an identity for Sharon as a distinct community, with a dynamic community center.
2. Enable Sharon to continue to be a socially, economically and physically diverse community.
3. Retain clear evidence of the community’s history while making provision for future needs.
4. Respect the community’s identity and maintain qualities of scale and form with existing development.
5. Adapt to change which inevitably must occur if the community is to be vital.
6. Protect the environment from degradation while allowing appropriate access to these natural resources.

### **C. Future Land Use**

This Plan recognizes that not all land is equally suited for all types and intensities of development. Rather, it is the basic premise of this Plan that future land uses must be sensitive to the physical limitations of a site and that in planning for the development of a parcel, more than the market value of the property must be recognized. Accordingly, separate Future Land Use Areas have been defined in this section and the physical boundaries of each are shown on the Future Land Use Map attached to this Plan. All future land development shall conform to the policies for each Future Land Use Area described below.

In addition, all projects requiring a town Subdivision permit or an Act 250 permit shall conform to the following Guidelines. Conformance with these Guidelines is required to be in conformance with the Sharon Town Plan under Criterion 10 of Act 250.

#### **The following shall apply to all new development**

1. Avoid monotonous lot layout of equally sized and shaped lots, especially along a road frontage.
2. The amount of frontage and building position will be varied from lot to lot to avoid a suburban pattern of repeated houses or other buildings situated at or near the middle of adjacent lots one after another.
3. Creating more than one adjacent lot with a depth greater than four times its frontage (“spaghetti lots”) is prohibited.
4. Buildings shall be located at the edges of woodlands and fields, relatively close to roads, along hedgerows, etc., in an effort to preserve agricultural soils, whether or not in the same ownership.
5. Lots should take advantage of and preserve desirable features, such as stone walls, hedgerows, fields, natural clearings, and land contours.
6. Locating buildings at the top of ridgelines or at the brows of hills where land is open and sites would be highly visible from nearby public roads is prohibited.
7. Excavation that will cause excessive erosion is prohibited.
8. Locate buildings and other construction such that they will not minimize impacts to natural or scenic features, such as bodies of water or historic resources.
9. In the case of multiple unit projects, buildings shall be clustered to preserve open space and protect agricultural soils.
10. On developments involving adjacent buildings or lots, driveways must be shared.

11. Locate light industrial and commercial uses where they will not be prominently visible, or screen such uses to minimize detrimental impacts on neighboring uses.
12. Locate any noisy, toxic, or noxious uses such as junk yards where they will not be detected from public roads or neighboring uses (especially housing), and/or take all reasonable means to screen or lessen any detrimental impacts of such uses. This provision does not apply to agricultural uses.
13. Primary retail establishments (excluding those that require substantial outside storage such as lumberyards or nurseries) shall only be located in the Village Area.

## **Village Area**

The Sharon Village has a unique and special character in its buildings, streetscape, and landscape. The Village is the focal point of the community. It is the recognized place for civic, economic, and social interaction.

The Village of Sharon comprises many historic buildings, private, civic, and religious, which are listed on Vermont's Register of Historic Places, and which form a traditional Vermont village. The Village has a traditional green, Town Office, two general goods stores, a church, a library, two schools and various historic houses as well as other commercial enterprises. It is a fundamental premise of this Plan that the town should make every effort to ensure the continued existence of the Village as a dynamic community center.

The purpose of the Village Area is to maintain the variety of uses currently existing in the Village and promote the Area as the center for Sharon. These purposes provide for the pleasant experience of visiting with a neighbor at the stores, the Post Office, the Town Office, the library, the church, and the school. Because Sharon Village is immediately adjacent to Interstate 89, it is readily accessible from outlying areas. Townspeople and visitors alike find it easy to locate and to reach.

New development within the Village Area should maintain the current pattern. The Village Area should remain very dense, with minimum of one acre (if conditions are suitable for on-site septic) per unit. Uses should continue to be mixed, allowing for the development of multi-family housing, commercial (including primary retail establishments) and civic uses. When possible, existing structures should be adaptively reused. The architecture and scale of new development should reflect the historic character of the Village Area.

Residents who attended a Planning Commission Forum on Village Development in 2009 expressed interest in increasing the vitality and vibrancy of Sharon Village. They wanted to see more dense residential development with commercial uses mixed in. Development of septic and/or drinking water capacity will be essential to this effort, as will the addition of parking for businesses.

Because of its proximity to I-89, Sharon Village is experiencing increases in traffic. The threshold level of traffic that is compatible with a small village has already been exceeded. In order to increase economic and social development of our Village, the Town will first need to evaluate the impact of traffic on the character of Sharon Village to determine whether Routes 14 and 132 can handle increased trips without congestion, as well as consider how traffic on these roads affects the community's ability to enjoy its village and promote the values articulated in this Plan.

Since 2005, Sharon Village has been designated under the State’s Downtown and Village Program as a village. Village centers are eligible for benefits including tax credits and priority consideration from other state programs and agencies.

### **Policies**

1. The density of development in the Village shall reflect existing settlement patterns, land capacity, and the availability of utilities for expansion.
2. Retail shops and services, tourist businesses, lodging and public facilities, at a scale and design consistent with the existing characteristics, are appropriate in the Village Area.
3. Conversion of structures and older buildings of historic merit is encouraged to enable new, more economical, and energy efficient uses of property and to avoid obsolescence.
4. Where new development is planned, efforts must be made to ensure that it is complementary and compatible with the architecture and configuration of existing buildings and streetscape, and respects the traditional size and scale, proportions, and shape of the neighborhood.
5. Single, two, and multiple family housing at medium to high densities is encouraged.
6. Major public investments, such as improvements to Routes 14 and 132, should be encouraged and endorsed only on finding that they will not unreasonably or unnecessarily jeopardize or endanger the unique and special character of the Village Area. Planners shall consult with the Town and affected property owners regarding such activities.
7. New businesses shall be limited to uses that do not adversely affect the quality of life, the unique character and historic atmosphere of the village, or the rural residential nature of the Town.
8. The Town shall maintain the Village Area Designation with the Vermont Agency of Commerce and Community Development.

### **Rural Residential Area**

Lands outside of Sharon Village are predominantly rural. Historically, much of this outlying area was associated with agricultural and forestry uses. With the decline of the number of dairy farms, much of the open land has reverted back to forests or has been set aside for residential uses.

Areas relatively free from site limitations (such as poor soils, steep slopes, and high elevations), have been used more for residential and agricultural uses. The less desirable areas have remained as forest, or reverted back to forest. Land adjacent to Town and State highways has been subjected to more active land use changes due to their ease of access. The more remote areas, distant from the Town’s primary services and main roads, have developed more slowly due to topography and the higher cost of development (e.g. power, telephone and driveways).

The purpose of the Rural Residential Area is to preserve the rural residential character of the Town and allow for residential development, home businesses, agriculture, forestry, and outdoor recreation. Commercial or industrial development is not appropriate in the Rural Residential Areas. Favorable conditions for construction of buildings and wastewater disposal facilities should not be the sole determinant for development in Rural Residential Areas. Density in the Rural Residential should be disperse, with new development locating in areas where municipal highways exists, rather than in areas that will require new roads. Development of less than one-acre is not allowed in the Rural Residential Area unless the proposed development utilizes clustering techniques. New development needs to be

sensitive and planned to minimize the reduction of forestry and agricultural potential and to occur at a reasonable rate of growth so as not to unduly burden the ability of the Town to provide services. Special or unique resources, including critical wildlife habitats (e.g. deer wintering areas), historic sites, archeological sites and wetlands must be evaluated and respected when developing projects in the Rural Residential Area.

### **Home Business**

Home businesses include those occupations which are customary in rural residential areas and that meet the following criteria:

- a) the owner of the home business reside on the property;
- b) the space designated for business occupies less than 50% of the total square footage of the dwelling, and is secondary to the residential use of the property;
- c) a home business employs no more than four people on site;
- d) hours of work are consistent and compatible with residential neighborhoods;
- e) pick-up and deliveries are limited, as much as possible, to smaller carriers;
- f) a bed and breakfast is an acceptable home occupation, as long as the owner lives on the premises. Breakfast may be served. The establishment shall not be used on a regular basis in any manner that alters the rural residential nature of the surrounding area.

A home business will be considered commercial when it becomes necessary to build accessory buildings or to enlarge the space occupied by the business to the point that it encompasses over 50% of the building. Such change of use will be subject to an Act 250 hearing.

Businesses that produce excessive noise, traffic, truck traffic, or which require excessive lighting, parking, or signage are considered inappropriate uses for rural residential areas. Such businesses shall be located in commercial areas.

The cleaning of hazardous waste containers, storage of hazardous wastes, junk cars, or the creation of a junkyard are inappropriate for rural residential areas and are not considered acceptable as home occupations.

### **Policies**

- 1. Maintenance of a rural living environment is the primary goal for the Rural Residential Area. New development needs to observe and promote this goal. Projects that adversely affect the rural setting and conflict with existing rural land uses shall not be located in this Area.
- 2. Residential, agricultural, and forestry uses are to be the primary and dominant land uses in the Rural Residential Area. Commercial (including all retail) or industrial ~~projects~~ development shall not be located in the Rural Residential Areas.
- 3. New land development shall be planned and sited to promote its continued use for agriculture and forestry. This can be accomplished by siting residential and other non-agricultural uses on the least productive soils for the preservation of agriculture and forestry. In addition, the layout of building lots shall be designed to conserve crop and pasture land and managed woodlands.
- 4. Residents are free to conduct an occupation in their homes provided that the nature of the occupation is customary or appropriate in rural residential areas, that it does not detract from the



rural character of the area, and that it does not cause an undue burden on the ability of the town to provide services such as highways and fire protection.

5. Major retail enterprises or service centers which draw principally on regional market shares, including factory outlets, fast food establishments, shopping malls, service stations and self-storage units shall not be located in the Rural Residential Areas.

### **Small Enterprise Area**

The Small Enterprise Area is established west of the Village Area along Route 14. The purpose of the Small Enterprise Area is to provide opportunities for business expansion and relocation in an area close to the Village and adjacent to a major highway. This Area, which was previously in residential and agricultural use, consists presently of several small service establishments. Through designation of this Area for business, it is intended that small enterprises will benefit from favorable access and higher traffic volumes afforded by Route 14.

Small non-retail commercial establishments are intended to be the dominant use for this Area. Primary retail establishments that do not require substantial outdoor storage (such as dry goods and grocery stores) are not appropriate for this area. Primary retail establishments that do require outdoor storage (such as lumberyards or nurseries) may be compatible with this area provided that they do not have an undue adverse impact on traffic or aesthetics. Residential uses are secondary, and future residential development here is not encouraged. Soil and slope conditions in this Area range from fair to excellent. Some sites offer favorable conditions for on-site sewage disposal and water supply. Sight distances in this Area are generally favorable.

Maintenance or enhancement of the natural landscape and the introduction of development compatible with the site is the principal challenge for this Area. The effects of strip development are highly evident in neighboring towns. These areas constitute sprawl, lack focus and orientation, and contribute to a high level of confusion, especially when they are fully developed.

The Small Enterprise Area is dedicated for commercial use, but not without some limitations. This Area is the gateway to the community and is scenic. Given its high visibility and immediate proximity to the White River, a nationally recognized recreational resource, future development needs to be sensitive to the preservation of its many scenic qualities. Commercial development must be designed to promote traffic and pedestrian safety, and to provide an attractive and convenient place to conduct business. The density of development within this area should be higher than the Rural Residential Area, with a rough minimum density of one-acre.

### **Policies**

1. To contain development in the Small Enterprise Area in a way that makes it a more hospitable environment, design considerations must include:
  - location and size of parking areas;
  - landscaping;
  - pedestrian circulation;
  - size and scale of structures;
  - location of structures within the site; and

- appropriate lighting and signage.
- 2. New projects must include the following design considerations:
  - a compact and densely developed project which uses land efficiently;
  - reducing the impact of parking by dividing areas into smaller lots, with integrated landscaping;
  - providing pedestrian and vehicular links between projects;
  - green space between the project and the street, including use of large trees; and
  - signage that effectively communicates the desired message without being unreasonably large or bright.
- 3. The creation of numerous curb cuts contributes to traffic congestion and safety problems and is discouraged. The Sharon Highway Ordinance shall be followed in all new developments.
- 4. Commercial projects shall use the following design principles:
  - provide pedestrian and vehicular links between projects;
  - reduce impact of parking areas by breaking lots into small groups with integrated landscaping;
  - encourage compact and densely developed projects which use land efficiently;
  - preserve open space of a distinct area of visual or functional importance;
  - provide trees to act as buffers between traffic arteries and interior drives;
  - lay out the project site to allow for coordinated future use of the entire parcel;
  - reduce apparent scale of large development by pattern, number, size, and location of structures within the site;
  - employ screening plans for visually objectionable features on the site, including dumpsters, refuse disposal sites, building equipment; and
  - minimize access roads or curb cuts onto public highways, and use common access drives.

### **Sharon Commerce Park**

The Town of Sharon recognizes that business and industry offer potential benefits including tax revenue and local jobs. However, businesses can also create fiscal and environmental costs that may outweigh potential benefits. These include the need to create, maintain, or repair infrastructure, increased traffic, and health or safety risks for residents.

The Sharon Commerce Park is highly visible from I-89 and River Road and is located close to the White River. Formerly called the Industrial Park, it was created in 1975 on 41.5 acres of land that had been a farm until it was bisected by the interstate. The purpose of the Sharon Commerce Park is to serve as location for commercial operations and light industry to benefit the Town and the region. Currently, it serves as the location for several light industrial businesses and a solar energy generation facility.

Access to the park has become problematic both for users and for the Village. Most trucks reach the park by exiting I-89 and proceeding through the Village, which is not designed to handle this burden. Routes 132 and 14 intersect unevenly at the Village Area. The River Road Bridge, built in 1927 and listed on the state Historic Register of Bridges, was not designed to carry large trucks; it is too narrow for two trucks to pass each other, and the narrow turning radius onto Route 14 means that trucks must swing wide into the lane of oncoming traffic.

The River Road itself is a small, scenic country road which parallels the river and is ideal for walking and biking, but not for truck traffic. There are two intersections along the road, Howe Hill and Broad Brook, which have narrow railroad underpasses at their intersections with River Road; and poor visibility.

Because of the limitations of this site for industrial use, the Town passed an Amendment in 2000 limiting its future development to commerce and light industry. The Town also constructed a new and safer access road to the Commerce Park, which was completed in December 2003. Businesses that are primarily large truck-based are not appropriate here. Density in this area should be determined by the potential traffic impacts a development might impose on the surrounding area.

However, it is recognized that all businesses require some truck activity to receive materials and supplies and to deliver the goods or services they provide. Businesses should work to limit the use of large trucks as much as possible and to require safe driving practices for their own vehicles and for those that make deliveries to them or for them.

### **Policies**

1. Acceptable uses for the Sharon Commerce Park include corporate offices, service businesses, renewable energy generation and small-scale commercial or light industrial companies. Primary retail establishments that require extensive storage (such as lumberyards or nurseries) may be appropriate in this area. All businesses must be clean, non-polluting, and not large truck-based. Businesses that would be considered inappropriate include large truck-based transfer/distribution, heavy manufacturing or assembly, storage or transfer of toxic or hazardous materials, or any businesses that are not clean, safe, or non-polluting (including pollution from noise, excess lighting or signage), or which have extensive hours of operation beyond the normal work day.
2. Minimize the visual impact of any businesses located there. Architecture that is appropriate in design and scale, landscaping to reduce the impact of buildings, small-scale parking areas, screened storage, and minimal lighting and signage.
3. Increase commercial development at the Sharon Commerce Park that will add to the Town's Grand List and increase the number of jobs provided there, while minimizing the negative impact on town infrastructure (roads/bridges) and our quality of life.
4. Promote use of the Sharon Commerce Park as a business incubator site.

### **Forest Conservation Area**

The predominant characteristics of the Forest Conservation Area are its steep slopes and undeveloped condition. Most of this land is in large tracts and is used for forest or timber production.

Given these limitations, these areas have very low suitability for residential development, except at low densities. Densities should be limited to a minimum of roughly 10 acres. High density development in this area is not compatible with this Plan. In addition to steep slopes, the soils that characterize these highland areas are generally extremely shallow and susceptible to high rates of erosion. The cost of siting buildings and constructing foundations, driveways, and septic and drinking water systems is substantially higher where these conditions prevail. Because of the severity of these problems, the economic feasibility of land development is at best marginal and the cost of public service such as road maintenance and fire protection is measurably higher. The purpose of the Forest Conservation Area is to maintain the area in

its undeveloped state, to benefit Sharon by providing a source of clean water to streams and the contiguous space necessary to support wildlife. Much of this land is not posted and it provides recreational opportunities, such as hunting, hiking, cross-country skiing, and snowmobiling.

### **Policies**

1. Commercial or Industrial development is not appropriate for this land use area.
2. Timber and wildlife management shall be considered the primary or dominant uses in this Area. Logging operations must be planned and managed according to Vermont Best Management Practice to keep soil erosion and sedimentation of streams to a minimum.
3. Other uses that may be compatible with the Area's principal use for forestry include seasonal recreation sites, educational facilities, hunting, hiking or wilderness clubs, or camps. These uses will not be considered acceptable if they will generate excessive amounts of traffic or noise, require substantial alteration of topography, or unduly alter the rural and undeveloped character of these outlying areas.
4. Major subdivisions or tract developments in this Area are not permitted. Limited residential development is allowed after careful review of its environmental and economic impacts on the Town and State.
5. New land development shall be planned and sited to promote the continued use of forestland for forestry and wildlife corridors. To minimize conflicts between forestry/wildlife uses, projects shall be designed with the following principles in mind:
  - residential and accessory uses shall be designed to conserve the maximum amount of meadowland and woodland; and
  - in areas with highly scenic or sensitive landscapes, the placement of buildings and structures shall be avoided when possible, and shall minimize visual disruption of the natural appearance.

### **White River Conservation Area**

The White River is an irreplaceable and unique natural resource that has scenic, recreational, and economic importance for the Town of Sharon; it is also considered to be held in public trust for the people of Vermont. (See land use cases #3W0530 & #3W0819, District Commission #3, Vermont Environmental Board, Vermont Supreme Court.)

Protection of the River is vital for the well-being of the Town and for the people of the State. It is vulnerable to many potential hazards, including pollution from specific and non-point sources, erosion of banks, damage to riparian buffers, surface runoff, and inappropriate development.

The White River Conservation Area has been designated by the Town of Sharon for the purposes of protecting the River and for its preservation for continued use and enjoyment by the people of Vermont. Future land uses in this Area are limited to agriculture and non-commercial recreation. No new buildings or permanent structures may be constructed in the Conservation Area.

The White River Conservation Area includes floodplains and flood hazard areas, low-lying land along the River which periodically becomes inundated during spring runoff or other times of heavy rainfall.

Floodplains are pervious and absorb water which might otherwise cause damage or destruction of property. Floodplains also provide excellent agricultural land because of the alluvial soil deposits and minimal slope of the land. Therefore, the boundaries of the White River Conservation Area shall be the boundaries of areas of special flood hazard as defined in the Sharon Flood Hazard Bylaw, adopted by the Selectboard in 2009. Flood Hazard maps are on file with the Sharon Town Clerk.

Important wetlands also abut the River and its tributary streams. Use and management of these ecologically sensitive areas directly affect water quality. Both floodplains and wetlands are ill-suited for structural development. (See separate sections on floodplains and wetlands.)

Sharon residents have indicated that they highly value the River as a scenic and recreational resource. It is popular with residents and tourists alike for fishing, swimming, boating, and tubing. The closing of the White River for six weeks in the summer of 2000 due to upstream pollution had a drastic impact on all of these uses, and created economic problems for the Village as well. It is crucial to avoid any repetition of this by doing everything possible to protect the River.

### **Policies**

1. The Town of Sharon recognizes the White River as a unique and irreplaceable natural resource which has scenic, recreational, and economic value for the Town, and which has been deemed a public trust for the people of Vermont.
2. The Town recognizes that the River is vulnerable to many potential hazards, and therefore has designated the White River Conservation Area to help protect and preserve the River.
3. In consideration of the exceptional resource value of the River, appropriate land uses for the White River Conservation Area are agriculture and non-commercial recreation.
4. New structural development and permanent buildings are not permitted within this Conservation Area.
5. Existing buildings and structures within the Conservation Area may be maintained, and additions to these structures are permitted as long as they meet the requirements of Sharon's Flood Hazard Bylaw and as long as they are not located within the flood plain.
6. Determination of the flood plain shall be in accordance with maps associated with Sharon's Flood Hazard Bylaw.
7. Landowners are encouraged to maintain their riparian land in a predominantly natural vegetative state to preserve the natural character of the banks and help prevent erosion, surface runoff, and pollution.
8. Recreational use of the river is encouraged, and the Town provides designated public access points. Private property should not be used to access the river.

## XV. Transportation

### A. Introduction

Sharon’s transportation system is principally a network of town roads, with the automobile as the primary means of transport. Sharon has direct access to Interstate 89. It is also close to the White River Junction train station and bus depot, as well as the Lebanon airport-and is served by public transit. Many residents also use the airport in Burlington, and, in some instances, Manchester, NH and Boston, MA. Following is a description of the Town’s current transportation infrastructure and future needs, policies, public transportation options, and bicycle and pedestrian travel.

### B. Town Highway Infrastructure

There are a total of 70.06 miles of roadway in Sharon; as reported by the Vermont Agency of Transportation (VTrans), and the Town of Sharon maintains 53.89 miles of these roads (Class 2 – Class 4). The town maintains the Class 2 and Class 3 roads (totaling 47.66 miles), where uses and functions vary from minor regional collectors to local access routes. The town owns 6.23 miles of Class 4 roads that are minimally maintained. In addition to these local roads, the State of Vermont controls 16.17 miles of roads (Route 14 and Interstate 89) within the Town. More than three-quarters of the roads are part of the local road system, an amount typical for most rural communities.

Class 2 Roadway	Road Mileage
Beaver Meadow Road	3.61
Broad Brook	1.74
Howe Hill	2.72
River Road	2.43
Vermont Route 132	4.02
<b>TOTAL</b>	<b>14.52</b>

Figure 22: Class 2 Roads in Sharon  
(Source: VTrans)

Class 1 includes the most heavily traveled town roads usually located in densely settled areas. Class 1 roads are extensions of State Highways and are usually assigned a State number. There are no Class 1 roads in Sharon.

Class 2 includes those major town highways selected as the most important highways in town. Class 2 roads serve the purpose of linking towns and high traffic areas such as village settlements and State Highways. Class 2 roads are generally paved. Sharon has five Class 2 roads:

Class 3 includes all town roads not Class 1 or 2 that can be driven under normal conditions all seasons of the year by an ordinary car. There are 33.14 miles of Class 3 roads in Sharon, including Cross Road, Fay Brook Road, Krivak Road, and Moore Road.

Class 4 highways represent the lowest order of importance to the Town. Public use is limited and the town receives no financial aid from the State to maintain them. Class 4 town highways are considered “seasonal”. They are not plowed by the Town, and may not be passable at times during mud season.

Many Class 4 roads have been incorporated into the natural landscape where very little development has occurred along the road. Often these roads are scenic travel corridors for hikers and bicyclists and provide limited access to hunting and conservation lands.

For Class 4 highways, according to the Town’s Highway Policy, “grading, installation and/or replacement of culverts, ditch work, and addition of gravel will be accomplished to improve the stability of the roadway as funds, manpower, and other necessary work allow.” Public utility services or other municipal infrastructure that typically accompany roads are nearly nonexistent.

Class of Roadway	Length in Class	Maintenance Jurisdiction
Class 2	14.52	Town
Class 3	33.14	Town
Class 4	6.23	Town
<b>TOWN TOTAL</b>	<b>53.89</b>	
State Highway	7.79	State
Interstate	8.38	State
<b>STATE TOTAL</b>	<b>16.17</b>	

Figure 23: Miles of Roads in Sharon (Source: VTrans)

### River Road Bridge

The River Road Bridge was built following the 1927 flood, and is listed on the Vermont Register of Historic Bridges, and was repainted during 2008. Based on a 1990 study conducted by CDL for the State of Vermont, a 60,000-pound weight limit has been assigned to this bridge for its protection and preservation. The narrow turning radius onto Route 14 makes use of the bridge by large trucks hazardous. The impact of any increased traffic on this bridge should be considered in evaluation of any new development, particularly at the Sharon Commerce Park. The impact on the White River must also be considered.

### Stone Culverts

There are many stone culverts that provide drainage for town roads. These structures are visually appealing, and are historic assets that residents are interested in inventorying and preserving.

## C. Town Highway Funding

The State uses four classification formulas to distribute financial aid to towns for road repair and maintenance. Classifications are jointly determined by the VTrans and the Sharon Selectboard. Criteria used for the classifications include traffic volume, road condition, and function. State aid to the Town decreases on a per mile basis from Class 1 to Class 3. No state aid is available for Class 4 roads. Total aid, therefore, depends on the number of miles of road a town has in each class. In FY13, Sharon received \$110,437 from the Vermont Agency of Transportation’s Town Highway Grant Program.

## **D. Future Highway Construction Activities**

Apart from education costs, public roads have been and will continue to be Sharon's largest town responsibility, requiring significant financial investments paid through municipal taxes. Transportation funding sources come from numerous combinations of the local tax base, state and federal gas tax receipts, state and federal allocations and registration fees. The most significant funding resource comes from the federal transportation bill and is distributed to towns by the Vermont Agency of Transportation. The federal and state government pays a percentage of project costs and the community pays the remainder. This funding applies only to Class 1-3 roads. Maintenance of Class 4 roads is funded exclusively by the community. The Two Rivers-Ottawquechee Regional Commission has compared programs throughout the region and recommends a program of early intervention using preventative maintenance, because such a program has proven to be 75-85% less costly than larger reconstruction work after significant deterioration has occurred. Such a program should be a part of an adopted Transportation Capital Budget and Transportation Program.

**Culverts and Drainage Systems** – Properly sized culverts and well-maintained road and drainage systems can help protect these systems from most severe weather events. Maintaining a reliable and up-to-date inventory of existing culverts and structures, coupled with a short and long range plan for replacement and upsizing is essential. Replacing deficient culverts and bridges also helps protect water quality – installing appropriately scaled and designed structures that can handle flood events, storm water runoff, promote fish passage, and minimize the discharge of road sediment. These upgraded culverts and bridges, operating in greater harmony with the natural environment, will also be less likely to fail during storm events.

**Road Paving** – Given that there are approximately 15 miles of local paved roads in Sharon, resurfacing will be a large share of its long-term highway program. The life of an asphalt road in rural areas ranges 10 to 15 years depending on road foundation, traffic, and drainage. Sharon would have to resurface an average of 1.25 miles per year in order to complete all 15 miles of its paved roads every 12 years.

**Route 132** – Route 132 extends through Sharon for a distance of 4.02 miles. It is entirely a part of the Town Highway system and it is not owned, maintained or controlled by the State of Vermont.

Vermont Route 132 is functionally classified by the Federal Highway Administration and the Vermont Agency of Transportation as a major collector road. Major collector roads are defined generally as key transportation links between state numbered highways or in this case, Routes 14 and 5. Accordingly, Route 132 has significance in terms of the region's overall transportation network. It serves as a primary access road to Interstates 89 and 91 for residents of the Towns of Sharon, Strafford, and Thetford. In addition, it is recognized and used as a short-cut for travelers heading north and south on I-89 and I-91.



## **E. Town Highway Policies**

Traffic volume variations are primarily dependent on the type, size, and location of various land uses. As our Town's population increases, more commuters are using our rural roads more heavily. As roads are widened, driver speed increases. Actions to improve and increase the carrying capacity of a road typically include building new roads and improving existing roads (e.g. resurfacing and widening). Depending on the extent of the improvements and the method of financing, such actions can be costly and place an undue financial burden on the taxpayers of the Town.

To avoid conflicts between the use of highways and future development, the Town has established policies to evaluate and control how growth affects town roads. These include concentrating future development into areas where major roads already exist, limiting multiple access drives onto town roads, supporting efforts to reduce reliance on the personal automobile, and working cooperatively with the VTrans and neighboring towns to improve regional land use and transportation planning.

As a policy matter, the Town is not interested in expending tax dollars on improvements to Class 4 highways. These highways are usually in the poorest condition and would require expensive reconstruction to their surfaces, base, drainage and width to bring them to Class 3 standards.

Sharon used to have more roads than it currently has in its local system. Several highways have been discontinued by the Sharon Selectboard and are no longer a part of the Town system. These roads generally have been those that generate little or no traffic. According to the Town survey, the majority of respondents indicated a desire for the Town to retain Class 4 roads for recreational purposes.

## **F. Access Management**

The Vermont Agency of Transportation has regulatory authority for access to state roads (Routes I-89 and 14); and the Sharon Selectboard regulates access to town highways (all other roads in Sharon).

Historically, the law on access permits limited the scope of review (19 V.S.A. Section 1111). It provided that reasonable access in no case should be denied, safety being the test for reasonableness. In 1998, the law was amended, expanding the state's and the town's ability to control access. In addition to the reasonable access test, the law now includes a criterion of compliance with local ordinances and regulations related to highways and land use. Permits for access must protect the public investment in roads and must maintain safety on existing highways. Access management decisions shall also consider whether or not the proposed access is compatible with the Town Plan and with regional and state agency plans.

Access Management means more than merely obtaining a "curb cut" for access to a public road, one driveway at a time. Access Management is concerned with preserving the function of the highways, including safety, and with preventing congestion and hazardous situations. This type of access management strategy links transportation access with the overall land use patterns recommended in the Plan.

Access management planning by the Town and the State can prevent costly repairs to roads and bridges, promote desirable land use patterns, and improve the safety of all residents. Accident data show a direct relationship between curb cuts and accidents: the greater the number of access points onto a highway, the higher the number of accidents. Access management techniques can minimize curb cuts, improve sight distances, and reduce vehicular congestion and conflicts with bicycles and pedestrians.

Some areas within Sharon are experiencing growth pressures that increase traffic. Roads primarily affected are those between Sharon and South Royalton, Route 14 and the River Road, where trucks, commuters, bicycle riders, joggers, pedestrians and tourists all compete for limited space. When traffic volume and speed increases and access points are numerous and closely spaced, accidents occur.

## **G. Public Transportation and Bicycle/Pedestrian Transportation**

Public transportation on the Stagecoach bus between Sharon and other places of work in the Upper Valley is a good alternative for some commuters, facilitated by the Town's Park and Ride Lot. The Sharon park and ride is often full and if land were available for expansion it is likely that additional spaces would be utilized. The Stagecoach Operations Supervisor estimates that 50% of their riders use the Sharon lot.

As is true throughout Vermont, many in Sharon are concerned over the transportation provisions available to Sharon's aging population, and the growing need for affordable public transportation opportunities for the elderly population, particularly to major medical centers such as the Dartmouth-Hitchcock Medical Center as well as major commercial shopping centers for day-to-day needs. One avenue for transportation to Sharon residents is the Stagecoach "Ticket to Ride" Program, which helps pay a substantial percentage of the cost of rides for senior citizens (60+) and persons with special needs when there is not available transportation in the household or the person requesting the trips is unable to drive on the day of the trip. Ticket to Ride is available for a broad array of destinations, such as medical services, shopping, errands, and social purposes.

Townpeople and tourists enjoy walking, jogging, bicycling, and horseback riding on town roads. Use in some areas is limited due to heavy vehicular traffic and a lack of adequate shoulders, a bicycle path, or bicycle lanes. Sharon is a destination town for bicyclists, nationally. Improvements to Route 14 would enable more bicyclists to visit our Town for this purpose, thereby improving our local economy. The River Road is a popular route for cyclists, but like most commonly traveled roads in Sharon (including Route 132), it would benefit from improvements that would increase pedestrian and bicycle safety.

A 2002 study was done on sidewalks in Sharon by Fit & Healthy Vermont. Three suggestions emerged from the study:

1. Adding to the trails behind the Sharon Elementary school.
2. Adding sidewalks under the Interstate.
3. Extending the trail to The Sharon Academy from the River Road.

There is interest among Sharon residents in connecting existing trails and old or "ancient" roads. The Upper Valley Trails Alliance is a group that can be consulted about trail building.

While the New England Central Railroad and Amtrak trains run through the Town of Sharon, there are no railway stations in operation within Sharon or the Town’s immediately adjacent neighbors. Therefore, depending on travel routes and needs, local residents must travel to stations in either White River Junction, Randolph, Montpelier, or Rutland to access nearby Amtrak trains for destinations throughout the Northeast and beyond.

## **H. Goals, Policies and Recommendations**

### **Goals**

1. To maintain a transportation system that is safe, efficient and complements the other goals and policies of this Plan.
2. To ensure that future development does not unnecessarily or unreasonably endanger the public investment in town and regional transportation systems or facilities, including highways, bicycle ways, trails, and rail.
3. To support local, regional and state-wide efforts to provide transportation systems that meet the needs of all population segments and not just those who use automobiles.
4. To minimize transportation energy consumption.
5. To mitigate the negative impacts of transportation to our businesses, homes, and the greater environment.
6. To support development projects that complement existing transportation investments.
7. To ensure the safety of the traveling public, including motorists, bicyclists, and pedestrians.
8. To support and coordinate land use and planning goals as outlined in this Plan.
9. To extend the design, life, and function of the transportation system of the Town.
10. To preserve the public investment in these facilities and to minimize the need for expensive maintenance, repairs, and improvements.
11. To limit access and strip development, in accordance with the land use settlement patterns as described in this Plan.
12. To preserve or enhance rural, environmental, historic, and scenic values.

### **Policies**

1. Transportation routes and highways should reflect design and location principles that complement the land use and settlement patterns recommended in this Plan.
2. The use of public transportation is encouraged.
3. Prior to a final decision to proceed with a major capital transportation project, policy makers shall first analyze the project against reasonable alternatives. In examining the alternatives, investigation shall focus on the environmental, energy, social, and investment costs as well as the extent to which each meets the goals and policies of this Plan.
4. It is in the public interest to maintain the Town’s current highways, bridges, and related facilities as necessary to ensure the current level of service.
5. The policy of the Sharon Selectboard is that before the Town would consider adopting a new road or upgrading an existing Highway, the abutting property owners shall be responsible for the cost

of improving and/or building the road to Town specifications. Final decision regarding the nature of the improvement rests with the Sharon Selectboard

6. The Town does not maintain Class 4 highways, except for bridges and culverts. (VSA Title 19, Sec.310). Given the interest in and benefits from biking, hiking, snowmobiling, cross-country skiing, horseback riding and similar outdoor recreational activities, the Town should, as an alternative to complete discontinuance of a highway, give full consideration to preserving Class 4 roads for recreational use, or downgrading their status to legal trails thus retaining the public's interest in them.
7. An integral scenic element of the rural countryside is the network of backroads which make up the Town's highway system. These byways are both visually and economically important to the Town. If improvements are needed to accommodate increased traffic, it is important to consider the relationship of the road to the surrounding features of the landscape.
8. Strip development (sprawl), which occurs in a linear path along a roadway, restricting visual and physical access to interior lands and views, is an unacceptable land use pattern.
9. Allow only projects of a size and scale which do not materially interfere with the function, safety, and efficiency of town and state highways.
10. Future development shall be confined to areas that are relatively close to transportation facilities with existing or planned capacity to serve new growth;
11. Consider the impact of additional traffic through the Village and across the bridge in reviewing any development.
12. Pedestrian access needs shall be considered in planning new road construction or existing road reconstruction.
13. It is the policy of the Town to maintain existing roads, rather than to build new roads.
14. Transportation plans shall be directly related to the nature and intensity of planned land uses. To insure optimum access management, land use patterns shall support these concepts:
  - Traditional village land uses shall be focused in the Village Area and adjacent areas; these uses include town facilities such as Town Office, Library, and school, as well as retail sales and services, banking, and professional services. Compact settlements reduce the need for curb cuts and also reduce the dependence on the automobile.
  - Commercial development or sprawl with individual curb cuts for each use shall be avoided to minimize traffic congestion and conflicts. Planning shall focus on concentrating development in designated areas; major developments shall provide for internal and interconnected access roads, limiting access points to primary routes;
  - Master planning for development of large tracts of land (10 or more acres) shall be required, prior to subdivision approval, to demonstrate minimum use of curb cut access through a system of internal roads as described above; and
  - Plan and design improvements for transportation must be compatible with the goals and policies stated in the Town Plan. Highway designs must provide flexibility to respond to community concerns and historic and scenic impact, as well as road widths and geometrics.
15. It is the policy of the Town to control curb cuts to insure the proper function and performance of a town highway. Considerations in evaluating developments shall include the following:
  - restricting the number of curb cuts per parcel or per linear feet of roadway;

- restricting direct access onto a primary road if a reasonable alternative access may be provided by a secondary road or shared driveway;
  - providing for safe distances between curb cuts and primary road intersections to insure the efficiency and safety of travel; and
  - consolidating or restructuring existing curb cuts or access roads to improve or maintain efficiency, safety, and function of the roadway.
16. It is the policy of the Town that the design of access roads and related facilities provide for proper alignment of new or relocated driveways along a roadway. Where multiple site development is planned, access management decisions shall:
- require shared access and parking when feasible;
  - require connecting roads between parcels or prohibit direct access from a parking space to an arterial or collector road;
  - encourage use of public parking areas, or shared parking spaces, to reduce the total amount of parking space required;
  - require pedestrian sidewalks, or reserve land for future sidewalks, along roads in concentrated areas, or between buildings and parking areas if needed for pedestrian safety; and
  - provide for pedestrian crosswalks and bicycle crossings at regular intervals.
17. It is the policy of the Town to make provision for transit stops or facilities at regular intervals, where applicable. Designs for traffic turning off a roadway shall take into account the traffic volume, available capacity, character and performance objective of the road, and the need to accommodate varying modes of traffic, including bicycle and pedestrian. Design objectives shall maintain or improve traffic flow, safety, and capacity, without compromising the historic, scenic, or cultural characteristics of the route and the area. Design principles to be employed shall:
- direct turning traffic to intersections with secondary roads where possible to minimize congestion and safety problems on main routes;
  - provide turning lanes to separate turning from through traffic only when essential and consistent with the roadway performance objectives; and
  - within the Village Area, promote “traffic calming” techniques including reduction of speed limits; narrowing the traveled road way by moving the fog line in toward the center of the road; adding on-street parking, sidewalks and curbstones; using limited building setbacks; and installation of streetlamps and tree plantings.
18. The Town shall include these access management policies and standards in its local permitting reviews for access onto town highways (Sharon Highway Ordinance), as well as its application of the subdivision regulations, to insure local control over developments with the potential to affect the function, performance, and characteristics of the roads serving Sharon.
19. The Sharon Planning Commission should evaluate Sharon’s Highway Ordinance for consistency with the goals and policies of this Plan and the town’s Subdivision Regulations.
20. The Sharon Planning Commission and Sharon Selectboard shall continue to work cooperatively with Two Rivers-Ottawquechee Regional Commission and with VTrans to coordinate future transportation and land use planning.

21. The Town has no legal responsibility to maintain or improve Class 4 roads. Property owners seeking to improve Class 4 roads shall be responsible for meeting all costs incidental to their improvement.
22. Strip development is not considered an appropriate land use pattern. Such development occurs in a linear path along a right-of-way and often restricts physical access to interior lands as well as visual highway access.
23. Developers shall be required to pay for all new roadways to access their developments and other infrastructure upgrades necessary to accommodate any traffic increases.

### **Recommendations**

1. The Town should investigate the use of other town-owned land for additional Park & Ride lots.
2. The Town should contact the Vermont Law School about partnering with them on carpools and vanpools.
3. The Town should expand the Neighbors-Helping-Neighbors program to include helping residents travel to doctors appointments and shopping in other Upper Valley towns.
4. Inventory and prioritize roads, bicycle ways, walkways, and other transportation infrastructure, and town equipment, facilities, and buildings, and incorporate these into a Capital Budget and Program.
5. The Town should inventory stone culverts for better maintenance and capital planning.
6. The Town should ask the Two Rivers-Ottawquechee Regional Commission to conduct a traffic study on vehicle speed and volume in Sharon.
7. The town should create a vision for the maintenance and development of Class 3 and 4 Roads that maintains the rural character of the area, while accommodating present and future uses.

## XVI. Energy

### A. Background

Concern about our nation's dependence on oil produced in foreign countries has grown greatly since the oil crisis of the mid 1970s. As fossil fuel prices continue to rise, everyday activities such as home heating and travel by car become increasingly burdensome for the average Sharon resident.

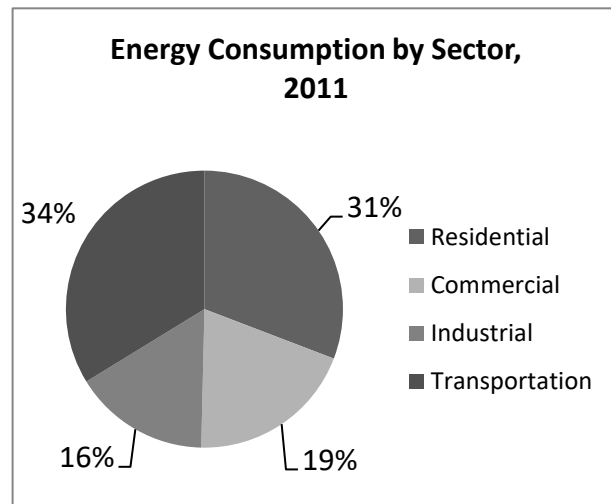
While the Planning Commission recognizes that energy supply and demand are directed largely by economic forces at the state, federal, and international levels, the manner in which Sharon plans for future growth can have an impact on how much energy is needed and used in this community. For example, a highly dispersed and unplanned pattern of land use can waste both land and energy resources. The siting and design of buildings and the selection of energy systems can influence the efficient use and conservation of energy.

Theories, such as the Hubbert Peak Theory (a.k.a. Peak Oil), suggest that the worldwide consumption of oil will have outpaced the existing supply. Although new technologies may enable energy providers to extract oil from locations that were previously impossible to reach, there is a finite amount of oil, which means that Sharon, like the rest of the world, should prepare for a much less oil-dependent future.

### B. Energy Demands

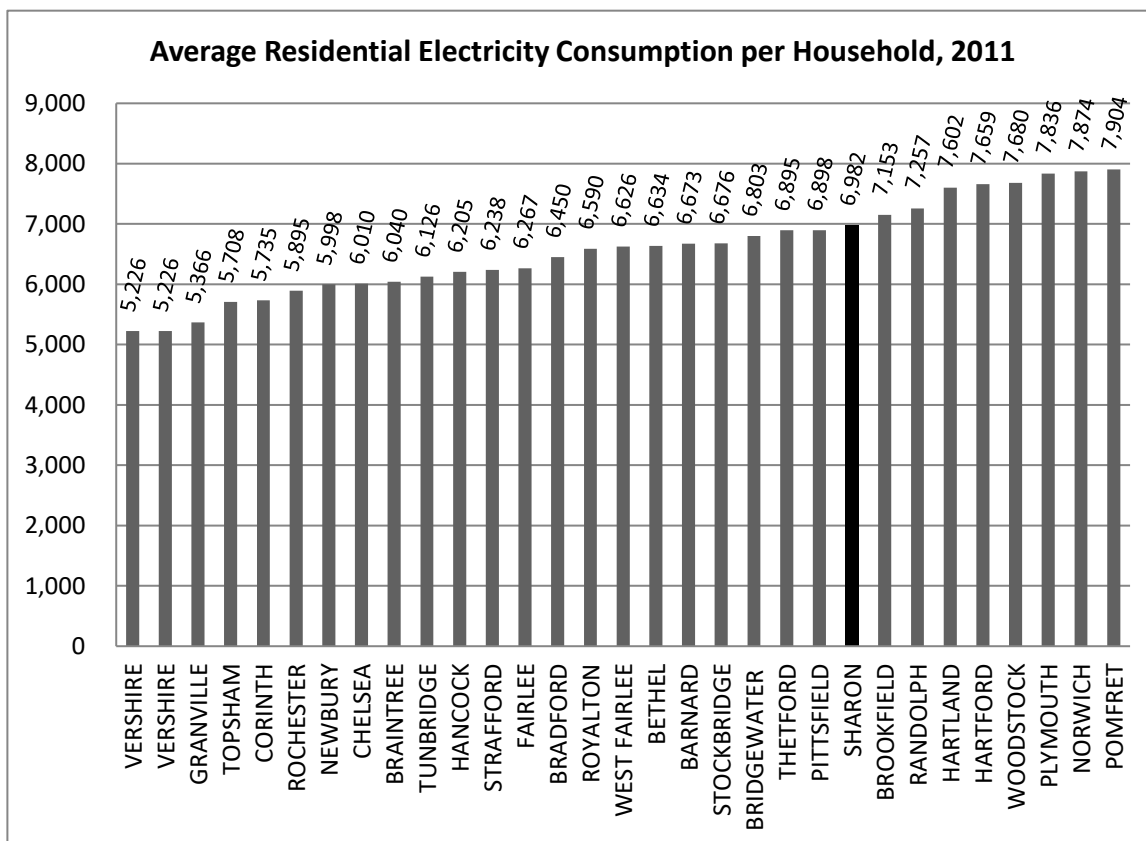
According to the 2011 Vermont Comprehensive Energy Plan (CEP), energy demand grew at 1.8% from 1990 to 1999, but has been close to 0% for the past 10 years. The combination of state energy efficiency programs and the 2007–2009 recession probably helped to reduce energy demand across most end-use sectors in Vermont. The 2010 American Community Survey indicates that the major heating fuels consumed in Vermont are oil (47%), electric (5%), wood (15%) and Liquid Petroleum Gas (LPG) and gas (30%).

Per capita energy consumption for residential and other uses in the Northeast is similar to that in rest of the United States. In Vermont, almost 80% of residential energy is dedicated to space heating and domestic hot water. Approximately 34% of Vermont's total energy usage goes toward transportation.



24 - Energy Consumption by Sector  
(Source: US Energy Information Administration, 2011)

Of the energy dedicated to transportation, over half is used to fuel private cars (as opposed to being used for public transit, road maintenance, or another public purpose). This fact reinforces the need for clear policies that reflect the transportation implications of land use decisions in this community.



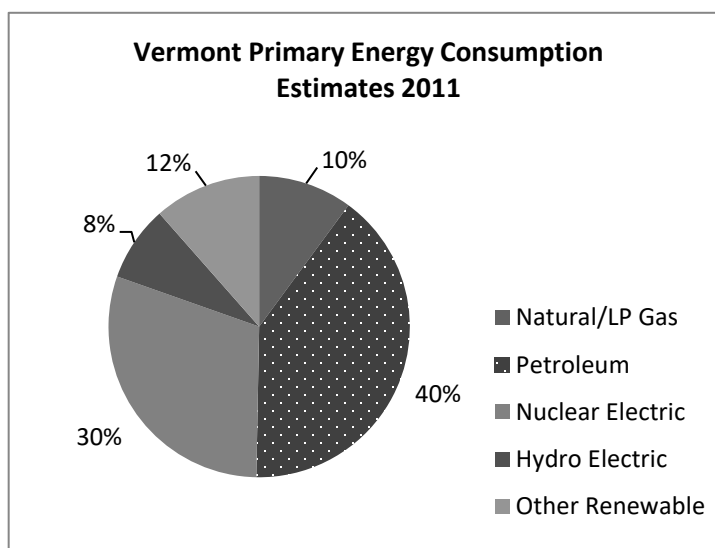
**26– Average Residential Electricity Consumption (kWh)**  
(Source: Vermont Energy Atlas and Efficiency Vermont, 2011)

According to 2011 data collected by Efficiency Vermont, the town of Sharon is 9th out of 30 towns in terms of average annual energy use levels in the Two Rivers-Ottawaquechee Region. In 2011, this data (limited only to residential energy use) determined that Sharon the average household used 6982 kWh of energy, which is 484 kWh higher than the average usage of all the towns in the Two Rivers-Ottawaquechee Region.

## C. Current Energy Sources

### Fossil Fuels

Sharon, like most other towns in Vermont, depends primarily on fossil fuels for heating and transportation. As shown in the chart #, fossil fuels account for 50% of all energy consumed in Vermont, much of which is used in transportation and heating.



**25 - Vermont Primary Energy Consumption Estimates**  
(Source: US Energy Information Association, 2011)



Nearly three out of five Vermont households use fuel oil, which means a substantial portion of Vermonters are subject to the price and availability instabilities of a reliance on oil. Of the total \$885 million spent on residential energy in the state of Vermont, just over half (\$445.8 million) was spent on fuel oil, kerosene or light propane gas. Vermont's economic system is so closely tied to the availability of fossil fuels that even modest price increases can lead to inflation, a slowdown in economic growth, and destabilized economy. This can have unanticipated adverse impacts at the municipal and residential level in all communities, including Sharon. For example, increasing fuel prices make it more expensive for a town government to provide traditional public services and maintain existing facilities. Additionally, rising prices can also make it difficult for residents to heat their homes and put enough food on the table (the price and availability of food is usually influenced by fuel prices).

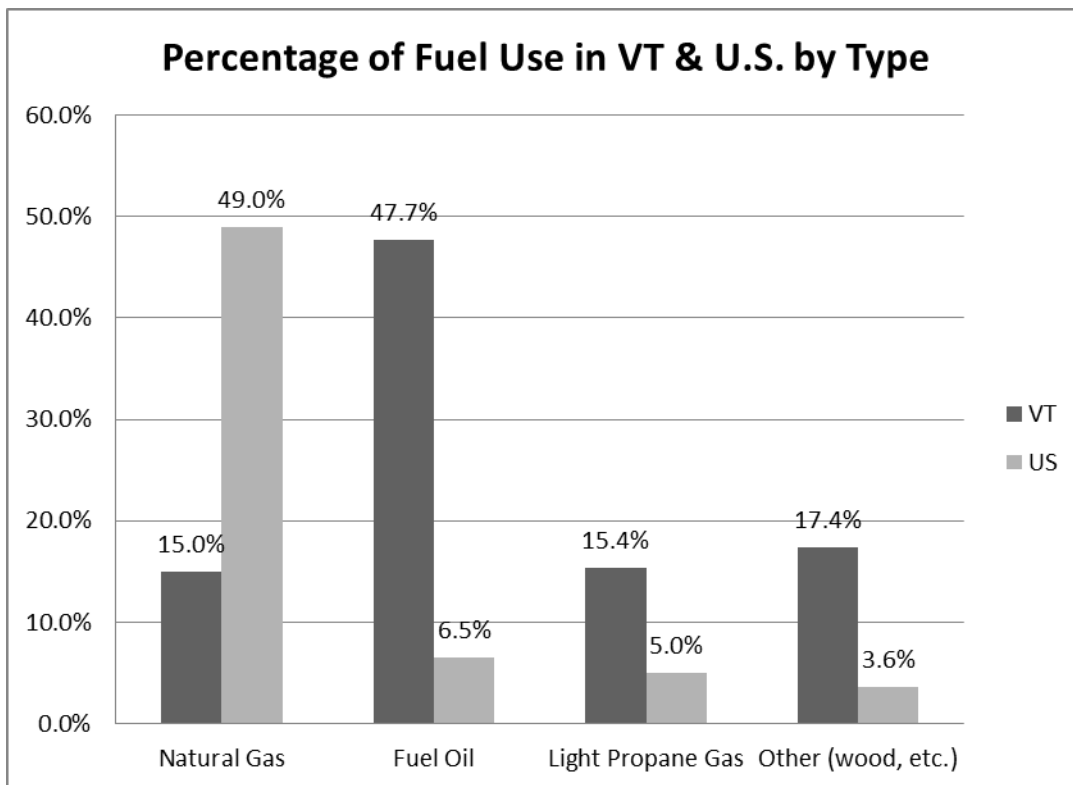


Figure 27: Vermont Energy Profile, U.S. Energy Information Administration, 2011

## Nuclear Energy

Vermont Yankee Nuclear Power Station began generating electricity in 1971, and generation was halted in 2014. The power from Vermont Yankee accounted for about 70% of electricity generated in Vermont in 2013, a higher share than any other State. The loss of this power producer forces the state to find other sources of local production or buy additional energy on the open market. The decommissioning process for the Vermont Yankee Facility will be a lengthy and costly process which involves extremely toxic nuclear waste.

## **Renewable Energy**

Vermont uses a greater amount of renewable energy than other states. Although the majority of Vermont's renewable energy is generated through Hydro-Quebec (see below), some hydroelectric power is generated in Vermont. Additional sources of renewable energy include several utility owned commercial-scale wind and solar farms, and landfill and on-farm methane projects.

## **D. Renewable Energy Resources**

The 2012 Vermont Comprehensive Energy Plan recommended that Vermont obtain 90% of our total energy from renewable sources by 2050. This is a lofty goal, but one that will benefit all Vermonters if achieved. The term “renewable energy” refers to the production of electricity and fuels from energy sources that are naturally and continually replenished, such as wind, solar power, geothermal (using the earth's heat to create power), hydropower, and various forms of biomass (trees, crops, manure, etc.).

Although initial set-up costs for renewable energy generation systems can be high, these systems can save users money over the long term, and they reduce the consumption of carbon-based fuels, helping to protect our environment and reduce our reliance on centralized energy. In Vermont, some of these energy sources are more readily available than others, and some are more cost-effective for the individual energy producer.

Residential scale renewable energy generation systems are generally regulated through the State of Vermont, requiring a Certificate of Public Good from the Department of Public Service. State statute forbids the creation of land use regulations that prohibit renewable energy generation.

Residential energy systems can take advantage of net metering. Net metering allows residential and commercial customers who generate their own electricity from solar power to feed electricity they do not use back into the grid, providing the solar system owner with a credit for the unused electricity generated. Customers are only billed for their “net” energy use. The Vermont legislature updated net metering laws in 2014 with HB 702, with the provision that net metering is available until the cumulative capacity of net-metered systems equals 15% of a utility's peak demand during 1996 or the peak demand during the most recent full calendar year, whichever is greater. Net-metered systems are overseen by the Public Service Board and are not required to get a local permit.

The types of renewable energy found in Vermont are:

### **Solar Energy**

Solar energy has the potential to provide clean, reliable, and safe energy, even in Vermont's climate. Most areas in Vermont have the potential for some solar energy production, at least at the residential scale. According to the Vermont Energy Atlas, in Sharon, if all 691 of the potential opportunities to develop residential roof top solar energy production were taken advantage of, the town could theoretically generate roughly 19% of total electricity demand.

Passive Heating and Lighting – Good building and site design are essential to taking advantage of the sun’s energy through passive methods. Sharon could encourage use of solar in this fashion by drafting language for zoning bylaws and subdivision regulations that require the appropriate placement of buildings, landscaping and building design.

Water Heating – Solar water heating is the most common form of residential-scale solar use in Vermont. Solar hot water (SHW) systems generally consist of a collector, a liquid medium, and a holding tank. These systems rely on the sun’s energy to heat the liquid medium, which in turn heats water, supplementing or supplying the hot water needs of the home. Solar hot water offers the fastest payback on investment of any type of solar.

Electricity Generation – Decreasing costs of equipment have made solar electric generation systems more prevalent in Vermont and across the U.S. Photovoltaic, or PV panels can be seen on roofs and arrays around Vermont. The sun’s energy creates an electrical charge in the silicon-based solar cells in the PV panel, creating electricity that powers homes, businesses or whole communities. Residential or commercial PV panels are typically tied into a house or building’s electrical supply in an arrangement called net metering, which feeds any excess power generated back to the local utilities.

Solar arrays are almost always more desirable than wind towers. Solar arrays do not need to be located on high ground and are therefore less visually prominent. In addition, these facilities can be located in already developed areas, requiring fewer access roads, requiring less infrastructure and reducing adverse impacts on wild lands.

There is one commercial-scale solar electricity generation facility in the Sharon Commerce Park on River Road.

## Wind Energy

Potential Wind Development Areas in Sharon (Acres)							
	Class 1 (10-11 mph)	Class 2 (12-13 mph)	Class 3 (13-14 mph)	Class 4 (15-16 mph)	Class 5 (16-17 mph)	Class 6 (17-18 mph)	Class 7 (19-25 mph)
<b>Residential</b> (30-meter)	8,213	169	0	0	0	0	0
<b>Small Commercial</b> (50-meter)	0	1,062	161	0	0	0	0
<b>Large Commercial</b> (70-meter)	0	0	0	1	0	0	0

28 - Potential Wind Development Areas in Sharon (Source: Vermont Energy Atlas, 2012)

Similar to solar, wind energy is an intermittent resource and its generation fluctuates in response to environmental conditions. The amount of energy produced by a specific wind tower can depend greatly on location, height of the tower, and proximity to other obstructions. Nevertheless, most modern wind

turbines (when properly sited) are able to generate electricity 95% of the time.

There are multiple levels of potential wind energy generation, ranging from Class 1 (10-11 mph) to Class 7 (19-25 mph). Sharon's topography does not make it a desirable location for large-scale wind energy generation. Instead, it is better suited to small-scale residential wind energy generation.

### **Biomass & Biogas Energy Generation**

The term 'biomass' refers to biologically-based materials such as algae, food or vegetable wastes, grass, wood, and methane. Biomass can be converted into an energy source to fuel vehicles (e.g. biodiesel), heat homes, or even generate electricity.

According to the 2011 Vermont Comprehensive Energy Plan, in 2007-2008 Vermonters using wood for primary heating source consumed about 5.4 cords, while those using wood as a supplementary source used 2.25 cords. In that same year, Vermont households with primary-heat-source consumers burned 3.8 tons and supplementary-heat-source consumers burned 1.2 tons for the season.

There are no biomass energy generation facilities in Sharon. The Sharon Elementary School is working to replace their heating system with a wood pellet system by summer, 2015. Community-scale biomass has the potential to offer cost-effective heating in small, clustered areas. Some towns have implemented combined heat and power systems that run on biomass to heat multiple municipal buildings.

### **Biofuels**

In addition to using biomass for heating, the use of biofuels, particularly biodiesel, is becoming an increasingly popular option for municipalities attempting to cut costs and reduce the environmental impacts associated with vehicle emissions. The Town of Sharon could revisit the possibility of using biofuels in their road crew fleet.

According to the Vermont BioFuels Association, biodiesel is a clean-burning alternative fuel, produced from domestic, renewable resources, such as soybeans, sunflowers, canola, waste cooking oil, or animal fats. Biodiesel contains no petroleum, but it can be blended at any level with petroleum diesel to create a biodiesel blend, which can be used in colder weather. It can be used in compression-ignition (diesel) engines or oil-fired boilers or furnaces with little or no modifications.

Growing biomass to use in biofuels may be a viable way to encourage farming or forestry in Sharon as well; however, balance should be sought for land used for energy demands vs. human and animal consumption.

### **Hydropower**

Many locations in Vermont, including Sharon, once depended on hydropower to grind grain, run mills and even supply electricity to homes. But, with the onset of centralized power, most of these small-scale

power generation facilities have been replaced by massive hydro facilities, such as those owned by Hydro Quebec. There are no sites in Sharon that are “in-service” hydropower facilities, actively producing power. The basic infrastructure to produce hydropower does exist in Sharon, however. Retrofitting such sites presents the most effective means of adding potential hydropower while keeping environmental impacts low.

## **E. Permitting Considerations**

Energy generation in Vermont is subject to a number of different permitting requirements, most of which are limited to state level permitting. State statute protects residential renewable energy generation systems from regulations that will completely prohibit their development.

### **Section 248**

Distributed power generation facilities, such as hydropower dams, fossil fuel plants, and wind power or solar systems owned by utilities, are subject to review and approval by the Vermont Public Service Board (30 VSA §248). Under this law, prior to the construction of a generation facility, the Board must issue a Certificate of Public Good. A Section 248 review addresses environmental, economic, and social impacts associated with a particular project, similar to Act 250. In making its determination, the Board must give due consideration to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, it is appropriate that this Town Plan address these land uses and provide guidance to town officials, regulators, and utilities.

For all commercial energy generation facilities, the following policies shall be considered:

- 1. Preferred Locations:** New generation and transmission facilities shall be sited in locations that reinforce Sharon’s traditional patterns of growth, of compact village center surrounded by a rural countryside, including farm and forest land.
- 2. Prohibited Locations:** Because of their distinctive natural, historic or scenic value, energy facility development shall be excluded from the following areas:
  - Floodways shown on FEMA Flood Insurance Rate Maps;
  - Fluvial erosion hazard areas shown on Fluvial Erosion Hazard Area maps;
  - Wetlands as indicated on Vermont State Wetlands Inventory maps or identified through site analysis; and
  - Rare, threatened or endangered species habitat or communities.
  - The Sharon Town Forest
- 3. Significant Areas:** All new generation, transmission, and distribution facilities shall be sited and designed to avoid or, if no other reasonable alternative exists, to otherwise minimize and mitigate adverse impacts to the following:

- Historic districts, landmarks, sites and structures listed, or eligible for listing, on state or national registers.
  - Primary agricultural soils mapped by the U.S. Natural Resources Conservation Service.
  - Public parks and recreation areas, including state and municipal parks, forests and trail networks.
  - Municipally designated scenic roads and viewsheds.
  - Special flood hazard areas identified by National Flood Insurance Program maps.
  - Public and private drinking water supplies, including mapped source protection areas.
  - Necessary wildlife habitat identified by the state or through analysis, including core habitat areas, migration and travel corridors.
4. **Natural Resource Protection:** New generation and transmission facilities must be sited to avoid the fragmentation of, and undue adverse impacts to, the town’s working landscape, including large tracts of undeveloped forestland and core forest habitat areas, open farm land, and primary agricultural soils mapped by the U.S. Natural Resource Conservation Service.
5. **Protection of Wildlife:** Designers must gather information about natural and wildlife habitats that exist in the project area and take measures to avoid any undue adverse impact on the resource. Consideration shall be given to the effects of the project on: natural communities, wildlife residing in the area and their migratory routes; the impacts of human activities at or near habitat areas; and any loss of vegetative cover or food sources for critical habitats.
6. **Site Selection:** Site selection should not be limited to generation facilities alone; other elements of the facility need to be considered as well. These include access roads, site clearing, onsite power lines, substations, lighting, and off-site power lines. Development of these elements shall be done in such a way as to minimize any negative impacts. Site clearing and roadways can have greater visual impacts than the energy generation facility itself. In planning for facilities, designers should take steps to mitigate the project’s impact on natural, scenic and historic resources and improve its harmony with the surroundings.

## F. Residential Energy Efficiency

There are a number of ways that the Town of Sharon can meet its local energy demand, first by lowering that demand, and then by working to meet the remaining need with local energy resources.

### Decreasing Energy Use by Changing Behavior

Raising awareness to replace wasteful energy behaviors with energy saving ones can reduce energy use and help residents and businesses save money.

Examples include:

- Turn off lights when you leave a room.

- Use a programmable thermostat.
- Use a clothes line to dry clothes.
- Use a cold-water laundry wash.
- Reduce driving.
- Utilize programmable thermostats, decrease temperatures in winter.

### **Implementing Household Energy Efficiency**

For those necessary or desired services that require energy, the principles of energy efficiency should be used to ensure that we use less energy to provide the same level and quality of service. Examples include:

- Conduct a home energy audit to identify the most cost-effective ways to save energy;
- Implement the air-sealing and insulation recommendations of the energy audit;
- Do not heating unused areas of your home;
- Insulate with high R-value (or heat flow resistance) material;
- Use high-efficiency windows;
- Install energy efficient, Energy Star rated appliances;
- Use high efficiency lighting;
- Use gas and/or solar water heaters;
- Site buildings to make use of existing wind blocks and natural cooling patterns derived from the landscape's topography; and
- Site buildings with maximum southern exposure to capture passive solar energy.

New residential development in the State of Vermont is required to comply with Vermont Residential Building Energy Standards (RBES). Commercial development is subject to similar code regulations. The RBES applies to newly built detached one- and two-family dwellings, multi-family and other residential buildings three stories or fewer in height, additions, alterations, renovations and repairs and factory-built modular homes (not including mobile homes).

In order to comply with the RBES, a built home must meet all of the Basic Requirements and the Performance Requirements for one of several possible compliance methods. If the home meets the technical requirements of the RBES, a Vermont Residential Building Energy Standards Certificate must be completed, filed with the Town Clerk and posted in the home. If a home required by law to meet the RBES does not comply, a homeowner may seek damages in court against the builder.

## **G. Municipal Role in Energy Efficiency**

The relationship between a municipality and its energy use creates opportunities to have an impact on local energy use reduction.

### **Sharon Energy Committee**

In January of 2006, Sharon established an Energy Committee (EC), which acts as an advisory board to the town and its residents on energy issues. The Sharon EC is an independent group of volunteers that provides information, resources, and support on energy efficiency and cost-effective energy use.

The EC has worked to encourage home weatherization in the town, and in participated in the 2013 Vermont Home Energy Challenge. Members have also distributed CFL and LED light bulbs at community events, along with coupons for energy saving kits (provided by Efficiency Vermont). The EC has also coordinated the conversion of the town's streetlights to more efficient LED lighting, which is due to be completed in 2015. Additionally, the EC maintains an information shelf at the town's Baxter Library, providing resources on energy saving measures. The EC has sponsored button-up and weatherization workshops and energy related discussion groups. The EC actively seeks new members and welcomes ideas and suggestions to reduce the community's energy use.

### **Property Assessed Clean Energy (PACE)**

Vermont enacted legislation in May 2009 (Act 45) that authorizes local governments to create Clean Energy Assessment districts. Once created, municipalities can offer financing to property owners for renewable energy and energy-efficiency projects. Eligible projects include the installation of solar water and space heating, photovoltaic panels (PV), and biomass heating, small wind, and micro-hydroelectric systems. Property-Assessed Clean Energy (PACE) financing effectively allows property owners to borrow money to pay for energy improvements. The amount borrowed is typically repaid via a special assessment on the property over a period of up to 20 years; if the property owner wishes to sell the parcel before fully repaying the obligation, then the obligation is transferred to the new property owner at the time of sale. The Town of Sharon created a PACE district through a vote at the 2013 Town Meeting and is in the process of formally adopting the program.

### **Capital Budget Planning**

Given the potential expense of energy efficiency improvements, it is essential to wisely budget town funding to cover these costs. State statute enables communities to create a Capital Budget and Program for the purposes of planning and investing in long-range capital planning. Although most communities have some form of capital account where they save money, many do not have a true Capital Budget and Program. A capital budget outlines the capital projects that are to be undertaken in the coming fiscal years over a five-year period. It includes estimated costs and a proposed method of financing those costs. Also outlined in the Program is an indication of priority of need and the order in which these investments will be made. Any Capital Budget and Program must be consistent with the Town Plan and shall include an analysis of what effect capital investments might have on the operating costs of the community.

When planning for routine major facility investments, such as roof replacements, foundation repairs, etc., it is important to consider making energy efficiency improvements simultaneously. The cost to replace or renovate a community facility will only be slightly higher if energy efficiency improvements are done at the same time, rather than on their own.

### **Policy Making for Change**

In addition to reducing the energy use related to facilities, Sharon can implement policies that lower energy use by town staff and encourage greater energy efficiency. Examples include:



Energy Efficient Purchasing Policy – A policy of this nature would require energy efficiency to be considered when purchasing or planning for other town investments. For example, Energy Star-rated equipment, such as computers and peripherals, appliances, and other products, generally use 20%–30% less energy than required by federal standards.

Staff Policies - Towns can also implement policies that are designed to reduce wasteful energy practices. Through policy making, local government can set a clear example for townspeople and encourage sustainable behavior that will ultimately result in both energy and financial savings. Please see the goals, policies, and recommendations section (J, below) for more ideas.

## **H. Energy and Land Use Policy**

The Vermont Municipal and Regional Planning and Development Act (24 V.S.A. Chapter 117) does not allow communities to impose land use regulations that prohibit or has the effect of prohibiting the installation of solar collectors or other renewable energy devices. However, statute does enable Vermont's municipalities to adopt regulatory bylaws (such as zoning and subdivision ordinances) to implement the energy provisions contained in their town plan.

Subdivision regulations are one of the most effective tools for encouraging energy efficiency and conservation. Subdivision regulations involve town review (through the PC) in the design process. Because subdivision regulations govern the creation of new building lots, as well as the provision of access and other facilities and services to those lots, a community can impose requirements that a developer site their building to maximize solar gain. Likewise, subdivision regulations can require that landscaping be utilized to reduce thermal loss.

## **I. Energy and Transportation Policy**

It is important that communities recognize the clear connection between land use patterns, transportation and energy use. Most communities encourage the development of residences in rural areas, but this rural development requires most of our population to drive to reach schools, work, and services.

Because transportation is such a substantial portion of local energy use, it is in the interest of the community to encourage any new developments that are proposed in Sharon to be located adjacent to existing roads. In particular, dense residential developments should be located within or adjacent to existing village centers or within designated growth areas. Commercial development that requires trucking and freight handling should only be located on roads which can effectively handle the size of vehicle needed.

## **J. Goals, Policies and Recommendations**

### **Goals**

1. To promote the development of renewable energy resources and facilities in the Town of Sharon to meet the energy needs of the community.
2. To reduce energy costs, the community's reliance on fossil fuels and greenhouse gas emissions that contribute to climate change.
3. To encourage a continued pattern of settlement and land use that is energy efficient.
4. To promote the construction of energy efficient residential and commercial buildings.
5. To increase awareness and use of energy conservation practices through educational outreach to the public.
6. To increase public transportation opportunities throughout the community, including park-and-ride access, bus service, biking paths, and sidewalks.
7. To promote greater use of existing public transportation services by community members.
8. To bring municipal buildings to net zero use.

## **Policies**

1. Town officials should participate in the Public Service Board's review of new and expanded generation and transmission facilities in the community to ensure that local energy, resource conservation, and development objectives are identified and considered in future utility development.
2. Any commercial energy generation facility proposed in Sharon must be developed so as to avoid negative impacts on the rural character of the surrounding area. Developers should make all possible efforts to minimize damage to important natural areas as identified in the Natural Resource section of this Town Plan. Additionally, such facilities should be located as close to existing roads as possible to avoid any increase in the services provided by the town.
3. Sharon supports the development and use of renewable energy resources – including, but not limited to, solar, biomass, micro-hydro and biofuels – at an appropriate scale; that enhances energy system capacity and security; that promotes cleaner, more affordable energy technologies; that increases the energy options available locally; and that avoids undue adverse impacts of energy development on the local community and environment.
4. Town officials should promote the Sharon PACE program and other similar statewide programs designed to make energy efficiency improvements more affordable and more likely to be implemented. Town officials should support efforts to educate homeowners about what resources are available to them for energy efficiency improvements.
5. The rehabilitation or the development of new buildings and equipment should use proven design principles and practices with the lowest lifecycle costs (cost of owning, operating, maintaining, and disposing of a building or a building system over a period of time).
6. Where land development or subdivisions are proposed, design plans should reflect sound energy conservation principles, such as passive solar and slope orientation, the use of protective wind barriers, and cluster development (citing buildings close to each other to maintain open space on the remaining parcel).
7. It is the policy of the Town that energy generation, transmission, and distribution facilities or service areas should be encouraged only when they complement the recommended land use patterns set forth in this Plan.
8. It is the policy of the Town that new, significant public investments (including schools, public recreational areas, municipal facilities, and major commercial or residential developments) must be located within or in close proximity to the village, and shall utilize existing roads whenever possible.
9. It is the policy of the Town to encourage the use of broadband services to support energy efficient, small-scale home businesses.

10. It is the policy of the Town to promote energy efficient travel by residents by encouraging walking, carpooling, increased use of public transportation, telecommuting, home businesses, and safe bike routes.

### **Recommendations**

1. Town officials, with help from the Energy Committee, should work to increase public awareness and use of energy conservation practices,
2. The Town, with help from the Energy Committee, should develop municipal procurement and purchasing policies that emphasize products that are energy efficient and Energy Star rated.
3. The Town should encourage weatherization programs through educational efforts aimed at local residents and businesses.
4. The Town should consider municipal or community-based renewable energy generation, to include municipal or district biomass heating systems, and the installation of individual or group net metered generation facilities on town buildings and property to serve town facilities. Sources of funding for municipal power generation could include third-party financing, municipal funds, bonds, grants, and available government incentive programs.
5. The Selectboard should formally authorize the Energy Committee to develop an Energy Action Plan as a supplement to the Town Plan.
6. The Selectboard should authorize the Sharon Energy Committee to track municipal energy use and costs (for example: through the EPA's free Energy Star® Portfolio Manager program), and develop an overall energy budget to manage the town's energy consumption.
7. The Town should continue to implement energy efficiency measures recommended by the Energy Committee for existing and future facilities.
8. The Town should continue to develop facility maintenance and operation policies that maximize energy efficiency while maintaining comfort levels for employees and visitors.

## **XVII. Flood Resilience**

### **A. Background**

Following the devastating impact of Tropical Storm Irene in 2011, the Vermont Legislature added a requirement that all communities address flood resilience as part of their municipal plans. Interpreted very broadly, “resilience” means that an entity—a person, neighborhood, town, state, region or society—when faced with a particular situation or event, has the ability to effectively return to its previous state or adapt to change(s) resulting from the situation or event without undue strain. As such, “resilience” is not necessarily an action that is taken, but an overall preparedness for a future event.

When applying the term to hazards, it is important to further articulate the meaning of “resilience.” In this context, “resilience” is often discussed in terms of being resistant to the effect(s) of one or multiple hazards that could reasonably be expected to occur in a specific area. For the purposes of this chapter, flood resilience will mean the ability of Sharon to effectively understand, plan for, resist, manage and, in a timely manner, recover from flooding.

### **Types of Flooding**

Generally speaking, there are two types of flooding that impact communities in the state of Vermont—flooding caused by inundation and flash flooding. Inundation flooding occurs when rainfall over an extended period of time and over an extended area of the river’s basin leads to flooding along major rivers, inundating previously dry areas. This type of flooding occurs slowly, but flood waters can cover a large area. Inundation flooding is slow and allows for emergency management planning if necessary. However, unlike during a flash flood, it may take days or weeks for inundation flood waters to subside from low areas, which may severely damage property.

Flash flooding occurs when heavy precipitation falls on the land over a short period of time. Precipitation falls so quickly that the soil is unable to absorb it, leading to surface runoff. The quick-moving runoff collects in the lowest channel in an area—upland streams, in small tributaries, and in ditches—and the water level rises quickly and moves further downstream. Flash flooding typically does not cover a large area, but the water moves at a very high velocity and the flooding manifests quickly, making flash floods particularly dangerous. Due to the velocity of the water, a flash flood can move large boulders, trees, cars, and even houses.

The collecting of water in channels in steep areas also causes fluvial channel erosion, which can severely damage roads and public and private property. Fast moving water in the stream channel may undermine roads and structures and change the river channel itself, predisposing other roads and structures to future flooding damage. Flash floods can also mobilize large amounts of debris, plugging culverts and leading to even greater damage. In Vermont, most flood-related damage is caused by flash flooding and fluvial erosion (erosion of stream banks). Due to its topography, Sharon is vulnerable to flash flooding and fluvial erosion.

## **Causes of Flooding**

Flooding is caused by a small number of distinctive types of weather, and also by the cumulative impact of a weather event and the conditions on the land at the time the flooding occurs. By far the most common type of weather event to occur in the region is a severe storm. Severe storms may include thunder, lightning, hail, high winds, and precipitation with varying degrees of intensity. Severe storms with particularly heavy precipitation have the ability to create flash flood conditions. However, over an extended period of time, severe storms may cause inundation flooding due to the cumulative effects of continuous rain, saturated soils and a high water table/high aquifer levels. As with any weather system, pockets of a severe storm may be more severe than others, leading to variability of observed impacts across the region.

The main hazards associated with hurricanes and tropical storms are high winds and flooding. By the time most hurricanes reach Vermont, they have been downgraded to tropical storms, but that is not to say they are less dangerous. Due to the steep slopes and narrow valleys in the region, heavy precipitation from a hurricane or tropical storm tends to cause severe flash flooding and widespread destruction. The speed that the hurricane or tropical storm is moving across the area and the pockets of varying severity have an impact on the rainfall totals observed from town to town. Storm impacts can be greatly magnified by previous rains.

Hurricanes and tropical storms occur during the summer and into the fall months, but ice jams and the combination of melting snow and rain leave the region vulnerable to the impacts of flooding in the winter and early spring. Ice jams typically occur during the spring when river ice begins to break up and move downstream, but may occur during a thaw period in the winter months. Sheets of ice become hung up on a narrow portion of the stream or river, such as under a bridge, culvert or another obstruction, creating a “dam” and additional ice and water begin to back up behind the hung-up ice sheets. This creates inundation flooding immediately adjacent to the site of the “dam,” and additional inundation flooding upstream. Once the “dam” breaks free, flash flooding may occur downstream as well. Ice jams in the region typically cause minimal damage, but they can damage road infrastructure and flood homes and businesses.

The combination of melting snow and rain can lead to flooding in Sharon. Flooding is worsened by land uses that create impervious surfaces that lead to faster runoff, and past stream modifications that have straightened or dredged channels, creating channel instability.

## **Historic Flood Events**

There have been at least 12 flooding events in Windsor County, half of which have directly impacted Sharon. Perhaps the worst flood disaster to hit the Town of Sharon, as well as the overarching region and the State of Vermont, occurred on November 3, 1927. This event was caused by nearly 10 inches of heavy rain from the remnants of a tropical storm that fell on frozen ground. Eighty-four Vermonters, including the Lieutenant Governor, were killed. The flooding in the White River valley was particularly violent, with the river flowing at an estimated 900,000 gallons per second on the morning of the 4<sup>th</sup>. Like many towns in the region, the Town of Sharon received heavy precipitation.

A more recent flood that devastated the region and the state was the result of Tropical Storm Irene, which occurred on August 28, 2011. Record flooding was reported across the state and was responsible for several deaths, and millions of dollars of home, road and infrastructure damage. Due to the strong winds, 50,000 Vermont residents were initially without power, and many did not have electricity restored to their homes and businesses for over a week. Despite the damage wrought, the flooding caused by Tropical Storm Irene is considered to be the second greatest natural disaster in 20th and 21st century Vermont, after the Flood of 1927.

The Town of Sharon suffered major damage to property and infrastructure during Tropical Storm Irene, although no lives were lost. It is estimated that Tropical Storm Irene dropped 6-7 inches in the Town of Sharon in a very short span of time, and 5-7 inches across the county. Many of Sharon's roads and culverts were damaged by the storm, including parts of Route 132, Quimby Mountain Road, Fay Brook Road, Downer Road, White Brook Road, Cross Road, Keyes Road, Raymond Road, and Moore Road, among others. The county-wide damage totaled \$32.5 million, and Town-wide damage was over \$2.4 million for this flooding event. Following the flood damage, the state of Vermont and FEMA have been coordinating on the home buy-out process across the state. At this time, there are four potential buy-outs in Sharon, three of which are along Route 14 and the other is on Farm Field Lane.

## **B. Flood Hazard and Fluvial Erosion Hazard Areas in Town**

### **Flood Hazard Areas**

There are two sets of official maps which govern development in floodplains in Vermont. They are the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMs) and VT Agency of Natural Resource's river corridor area maps. The FIRMs show the floodplain that FEMA has calculated would be covered by water in a 1% chance annual inundation event, also referred to as the "100 year flood" or base flood. This area of inundation is called the Special Flood Hazard Area (SFHA). FIRMs may also show expected base flood elevations (BFEs) and floodways (smaller areas that carry more current). FIRMs are only prepared for larger streams and rivers. Sharon has FEMA FIRM maps that are used in Flood Hazard Bylaw administration, however they are out-of-date and do not contain elevation data.

Recent studies have shown that a significant portion of flood damage in Vermont occurs outside of the FEMA mapped areas along smaller upland streams, as well as along road drainage systems that fail to convey the amount of water they are receiving. Since FEMA maps are only concerned with inundation, and these other areas are at risk from flash flooding and erosion, these areas are often not recognized as being flood-prone. Property owners in such areas outside of SFHAs are not required to have flood insurance. Flash flooding in these reaches can be extremely erosive, causing damage to road infrastructure and to topographic features including stream beds and the sides of hills and mountains, and creating landslide risk. The presence of undersized or blocked culverts can lead to further erosion and stream bank/mountainside undercutting. Change in these areas may be gradual or sudden. Furthermore, precipitation trend analyses suggest that intense, local storms are occurring more frequently.

Vermont ANR's river corridor maps show the subject to these erosion hazard areas, which may be inside of FEMA-mapped areas, or extend outside of these areas. In these areas, the lateral movement of the river and the associated erosion is a greater threat than inundation by floodwaters. Elevation or floodproofing alone may not be protective in these areas as erosion can undermine structures. Vermont ANR released preliminary statewide river corridor maps in 2014. In the Town of Sharon, there are 6 commercial structures, 21 mobile homes and 30 residential structures located in the mapped Fluvial Erosion Hazard zone.

### **Flood Hazard Regulations**

The Town of Sharon Flood Hazard Area Bylaw prohibits new structures in the Special Flood Hazard Area (also considered the 100-year floodplain) and Fluvial Erosion Hazard Zone/stream buffer area. It also places restrictions on other types of activities within the Special Flood Hazard Area and the Fluvial Erosion Hazard Zone/stream buffer area, and specifies structural requirements in both zones. These buffers seek to protect the fragile riparian habitat, improve or maintain water quality and prevent soil erosion. Fluvial Erosion Hazard Zones have been mapped for Broad, Elmers, Fay and Quation Brooks only. In addition, the Town Subdivision Regulations require that no building envelopes are placed within 100 feet of the top of the bank of any perennial stream on the edge of any wetland, and no ground disturbance or removal of healthy vegetation is permitted within 50 feet of those boundaries, except for permitted crossings.

There are 30 residences and 6 commercial structures within the 100 year floodplain or Special Flood Hazard Area. Their combined value in 2014 equals \$8,588,409.

Any updates to Sharon's Flood Hazard Regulations that are intended to increase flood resiliency in town will need to include language that protects River Corridor Areas (also known as Fluvial Erosion Hazard Areas) that are outside of areas already mapped. This would most likely be in the form of mandatory stream buffers for upland streams that are consistent with Sharon's Subdivision Regulations. If these steps were taken, existing structures within the area would be grandfathered until suffering major flood damage or substantial enlargement of its footprint, at which point it will be subject to compliance with flood regulations.

Future revisions to Sharon's Flood Hazard Bylaw will require input from the community regarding the level of regulation it believes is necessary to protect citizens and their buildings from severe flood hazard events. Provided that all parts of the Flood Hazard Bylaw continue to meet the minimum requirements of the NFIP, communities have a broad range of flexibility in regulating the flood hazard area.

### **Non-regulatory approaches**

#### **Easements**

Sharon could pursue riparian easements as a way to protect floodplain from development and preserve flood storage.

## **Home/Property Buyouts**

Following the flood damage caused by the 2011 spring flooding and Tropical Storm Irene, a number of property owners in Vermont applied for property buyouts, funded by FEMA’s Hazard Mitigation Grant Program (HMGP) and HUD’s Community Development Block Grants for Disaster Recovery (CDBG-DR). Over the course of this process, over 130 damaged or destroyed residential properties in the state of Vermont will be/have been bought out with this grant funding. As a stipulation of the HMGP funding, FEMA requires that the structure(s) on each buyout property be demolished, and ownership of the empty parcel of land then be transferred to the town/municipality. Future development on these sites will be restricted.

The home/property buyout process has both positive and negative impacts on a town and the community at large. The TRORC region was particularly hard hit by the flooding caused by Tropical Storm Irene, and had the greatest number of property buyout applicants in Vermont. As of early 2014, there were 60 properties in the TRORC region involved in the buyout process. The towns in the TRORC region with buyout properties include; Bethel, Braintree, Bridgewater, Granville, Hartford, Pittsfield, Plymouth, Rochester, Sharon, and Stockbridge. Most of these towns are located on the White River and its tributaries. As of early 2014, 21 residential properties spread across these towns were purchased with FEMA’s HMGP funds. Because the properties eligible for a buyout were heavily damaged by flooding, the buyout process is an effective way to reduce a community’s vulnerability to flooding and therefore improve the community’s overall resilience to flooding. As a result, a number of communities in the region have been made safer.

Another consequence of home buyouts is the loss of a town’s housing base. Many towns in Vermont and in the region are located in valleys surrounded by steep slopes. Some homes are built on the hillsides, but due to topographic constraints, many homes are built in the valleys, near rivers and streams. This location places the structure and inhabitants at risk of flooding damage or injury caused by either inundation flooding or by fluvial erosion. Often times, affordable or low-income housing is located in these higher risk areas. So, during a major flooding event, these homes have a higher probability of being damaged or destroyed, and therefore may be good candidates for a home buyout. However, when the structure is razed as part of the buyout process, it is removed from a town’s housing base and in addition, may be removed from a town’s affordable housing base. This situation may present challenges to the town in the future.

Generally speaking, the buyout of homes at high-risk of flood damage is an important step in improving the resilience of a town and community to flood damage. If a town’s home buyouts have significantly impacted the housing base, it is important that the town have a thoughtful and creative approach to rebuilding its housing base that will maintain its improved flood resilience and conform to the town’s future land use visions or settlement patterns.

## **Culvert Maintenance**

A number of culverts have been replaced or upgraded since Sharon’s 2009 Hazard Mitigation Plan was adopted. In an attempt to improve the flow of floodwater through the Town, Sharon upgraded culverts on the following roads: Route 132, White Brook Road at Route 14, Fay Brook Road “Bridge,” Broad Brook Bridge, Quimby Mountain Road, and a smaller scale culvert replacement on Krivac Road. Many of



Sharon's major roads run alongside the main stem of the White River and its tributaries such as Broad Brook, Fay Brook, and Quation Brook. Moore Road, Broad Brook Road, and Fay Brook Road are especially vulnerable to erosion and washouts. Two culverts were upgraded on Downer Street during the 2014 work-season.

The last official culvert inventory completed for the Town of Sharon was in 2006. Sharon updates its culvert inventory in-house periodically. The process of upgrading culverts is ongoing.

## **C. Goals, Policies and Recommendations**

### **Goals**

1. Use sound planning practices to address flood risks so that Sharon's citizens, property, economy, and the quality of the Town's rivers as natural and recreational resources are protected.
2. To allow Sharon to recover from flooding quickly and in a manner that improves flood resilience.
3. To protect municipal infrastructure and buildings from the potential of flood damage.

### **Policies**

*\*Mapped areas, unless corrected by FEMA.*

1. All new fill and construction of buildings in Sharon's mapped flood zones\* outside of river corridors increases flood risk and is prohibited.
2. Permitted land uses within Sharon's River Corridor Areas are limited to non-structural outdoor recreational and agricultural uses due to the dangerous erosive risk in these areas.
3. Commercial, industrial, and residential uses within ANR's mapped river corridor areas are prohibited.
4. New buildings within Sharon's mapped floodways\* shall be prohibited.
5. In order to lessen the conflict between roads and streams, Sharon supports moving or abandoning roads when there are more long range cost effective solutions or other routes.
6. Sharon should only rebuild/install culverts and bridges that are designed at minimum to meet VTrans Hydraulics Manual and ANR Stream Alteration Standards.
7. Emergency services, power substations, and municipal buildings shall not be built in the Special Flood Hazard Areas.

8. Vegetated buffer strips should be maintained in riparian zones bordering streams and rivers. Rock rip-rap and retaining walls should only be used to the minimum extent necessary and when bioengineering techniques may not be adequate to prevent significant loss of land or property.
9. Sharon's upland forests and watersheds should be maintained predominately in forest use to ensure high quality valley streams and to ensure that flood flows reduced.
10. Outside of areas of existing compact development, new development must preserve vegetated riparian buffer zones that are consistent with state riparian buffer guidelines.
11. All wetlands which provide flood storage functions shall remain undeveloped or have compensatory storage constructed so as to achieve no net loss of such wetland function. In the long term, restoration and enhancement of additional wetlands should be pursued in order to improve Sharon's flood resilience.
12. Structural development or intensive land uses shall not occur in Class I and Class II wetlands unless there is an overriding public interest.
13. Emergency planning for flood response and recovery is encouraged.
14. Municipal facilities (excluding bridges) shall not be located within mapped Flood Hazard or River Corridor areas.

### **Recommendations**

1. Sharon should work with the Regional Planning Commission to strengthen the Town's Flood Hazard Bylaw in order to mitigate risks from inundation and erosion to public safety, critical infrastructure, historic structures and municipal investments.
2. Sharon should work with VTrans and the Regional Planning Commission on advocating for and improving the flood capabilities of state or Town-owned transportation infrastructure.
3. Sharon should continue working to develop flood mitigation plans, and emergency preparedness and recovery procedures.
4. Existing homes and businesses at serious risk of flood damage in Sharon should be identified and prioritized in concert with the ANR River Management Section and the Regional Planning Commission for mitigation actions such as elevation/relocation or purchase and demolition.
5. Watershed-level planning should be done by towns with assistance from the Regional Commission to evaluate natural and constructed flood storage options upstream of existing areas of concentrated development that are at risk of flooding.

6. Sharon will work with ANR, the Regional Planning Commission and landowners to lessen flood risk by restoring natural channel functions through berm or dam removal or intentional lowering of streambanks.
7. Sharon should adopt road and bridge standards to the 50 or 100 year storm level for identified critical transportation routes.
8. The Selectboard should recruit a representative to regularly attend and participate in the region's Local Emergency Planning Committee (LEPC #12).
9. The Town should consistently maintain and update town bridge and culvert inventories. This information should be used to develop a schedule to replace undersized culverts.
10. That town should identify and purchase suitable a piece of land for the future relocation of the Fire Station and Emergency Services. This property should be accessible to I-89 and not be prone to flooding.
11. That post-event recovery and reconstruction within the river area should be managed according to the Vermont River Program's best practices in order to avoid negative impacts downstream.

## **XVIII. Relationship to Other Plans**

### **A. Relationship to Town Plans**

The Town Plan focuses primarily on development and policy within the community's boundaries. However, it is important to recognize that how a community grows and changes can be directly impacted by development that takes place outside of the community. For example, many towns had large and vibrant villages that were negatively impacted by the location of the railroad terminals in outside areas.

In order to analyze the potential for outside impacts on Sharon, the Planning Commission has reviewed the Municipal Plans and, if available, the land use regulations of surrounding towns for consistency with this Plan. These communities include:

- **Hartford** – Hartford is Sharon's largest neighbor, by far the largest Vermont community in the Upper Valley. Hartford represents a major hub of employment and services. The community has land use regulations that are designed to manage the larger scale, higher intensity types of development associated with a community that has a population of roughly 10,000 people. While much of Hartford's land use plan focuses on high density mixed use development in its villages, downtown and growth area, the areas of the community that share a border with Sharon are exclusively rural and rural residential in nature, making the two plans unlikely to conflict.
- **Norwich** – Norwich has zoning and subdivision regulations in addition to a municipal plan. The land use patterns outlined in the Norwich Town Plan are similar to Sharon's, with a densely populated village center surrounded by more rural countryside. Along the border it shares with Sharon, Norwich plans low-density, low-impact development that has been carefully sited. The Plan pays particular attention to the suitability of the landscape when considering whether a use is appropriate within these areas. There are no conflicts between these plans.
- **Pomfret** – Pomfret has a tradition of planning and zoning that focuses primarily on rural residential, agricultural and home occupations. Uses within the limited area of shared border between Pomfret and Sharon are similar and therefore compatible. No conflicts are foreseen.
- **Royalton** – Royalton maintains a Municipal Plan and an aggressive Flood Hazard Bylaw, but no zoning ordinance. Royalton's Flood Hazard bylaw is very similar in nature to Sharon's, prohibiting new development in the floodplain. The majority of Royalton's land use is designated as Forest Conservation or Rural Residential, including the area along the shared border with Sharon. The only potential area of conflict between the two communities is in the area adjacent to Sharon's "Commerce Park". This area is intended to be low density residential with limited uses. It is possible that a future industrial use could conflict with Royalton's land use plan, but it should be noted that the majority of Commerce Park is now occupied by a solar farm – which is an extremely low impact neighbor. For the life of the solar farm, it is unlikely

that conflicts will arise between these two areas.

- Strafford – Strafford has a regularly updated Municipal Plan as well as Zoning, Subdivision and Flood Hazard Bylaws. Strafford’s principal land use pattern is rural residential that encourages natural resource protection. Contiguous areas of land use in both communities are similar in nature. There are no conflicts between these plans.

## **B. Relationship to the Regional Plan**

Sharon is a member of the Two Rivers-Ottawaquechee Regional Commission (TRORC). It is one of thirty (30) municipalities that comprise the Region. The TRORC Region covers northern Windsor County, most of Orange County and the Towns of Pittsfield, Hancock and Granville. The Commission was chartered in 1970 by the acts of its constituent towns. All towns are members of the Commission, and town representatives govern its affairs. One of the Regional Commission’s primary purposes is to provide technical services to town officials and to undertake a regional planning program. As is the case in many areas of the State, the extent of local planning throughout the region is varied. Some municipalities are more active than others. Thus, the level of services to each of the towns changes with time.

The Regional Commission adopted its Regional Plan in June, 2014. It will remain in effect for a period of eight years. This Plan was developed to reflect the general planning goals and policies expressed in the local plans. It is an official policy statement on growth and development of the Region. The Regional Plan contains several hundred policies to guide future public and private development in the Region. Policies for land use settlement are identified. These areas are: Town Centers, Village Settlement Areas, Hamlet Areas, Rural Area, and Conservation and Resource Areas. Delineation of each land use area is mapped or charted.

## **C. Goals, Policies and Recommendations**

### **Goal**

1. To work with neighboring towns and the region to encourage good land use and environmental policy that benefits the citizens of Sharon.

### **Policies**

1. To encourage continued communication and cooperation between Sharon and its neighboring towns.
2. To continue participation in the Two Rivers Ottawaquechee Regional Commission.

3. To exchange planning information and development data with neighboring communities.

## **XIX. Town Plan Implementation**

Title 24, Chapter 117, §4382(7) requires a Town Plan to contain a “recommended program for the implementation of the objectives of the development plan”. While it is not required by law that communities implement any of the policies or recommendations in a municipal plan, it is important to recognize that in order to meet the vision of the Plan, it must be implemented wherever possible.

Implementation can be approached in multiple ways some regulatory and some non-regulatory, they include (but are not limited to) the following:

<b>Regulatory</b>	<b>Non-Regulatory</b>
Zoning & Subdivision Bylaws	Design a Capital Budget & Program
Strengthening Town Plan language to clearly influence Act 250 proceedings (use of direct language, such as "shall")	Advisory Committees (i.e. Conservation Commissions or Energy Committees)
Official Map	Education/Outreach on important issues
Access Permits - Town Highways Only (Selectboard)	Purchase or acceptance of development rights
Flood Regulations & National Flood Insurance Program	Follow-up on recommendations for action in Plan

### **A. Regulatory Implementation**

Regulation of land use and development through rules adopted by the Town is one possible method of Plan implementation. Well recognized and utilized means include, but are not limited to, zoning bylaws and subdivision regulations. Examples of potential implementation tools include:

#### **Subdivision Regulations**

Sharon does have subdivision regulations. These regulations are administered by the Planning Commission. Subdivision regulations govern the division of parcels of land and the creation of roads and other public improvements. Furthermore, subdivision regulations ensure that land development reflects land capability and that critical open spaces and resources are protected from poor design or layout.

One noted advantage to adopting Zoning and Subdivision regulations is that the trigger for Act 250 (see below) review is raised from 1 acre to 10 acres, essentially giving the town greater local control over all development under 10 acres.

#### **Flood Hazard Bylaws**

Under Vermont law [24 V.S.A., Section 4412], the Town of Sharon is able to regulate the use of land in a defined flood hazard area adjacent to rivers, streams and ponds. These bylaws have been established to ensure that design and construction activities within the limits of the 100 year flood plain are designed so

as to minimize potential for flood damage and to maintain use of agricultural land in flood-prone areas. As noted in the Natural Resources section of this Plan, property owners are eligible for federal flood insurance on buildings and structures at relatively low federally subsidized premium rates. However, such insurance cannot be obtained for properties in Sharon unless the Town has in effect a Flood Hazard Bylaw which, at present, Sharon has. The current Flood Hazard Bylaw exceeds the minimum standards required for a community to be part of the National Flood Insurance Program.

### **Act 250**

Since 1970, Vermont has had in place a statewide review system for major developments and subdivisions of land. Exactly what constitutes a development or subdivision is subject to a rather large and involved set of definitions. However, generally, commercial and industrial projects on more than one acre of land; construction of 10 or more units of housing; subdivision of land into 6 or more lots; construction of a telecommunication tower over 20 feet in height; and development over 2,500 feet in elevation qualifies.

Prior to these activities being commenced, a permit must first be granted by the District Environmental Commission. In determining whether to grant a permit, the Commission shall evaluate the project in relation to ten specific review criteria.

These criteria relate to the environmental, economic, and social impacts of the proposed project on the community and region. Parties to Act 250 proceedings include Sharon, through the Planning Commission and Selectboard, the State, and the Regional Commission. One criterion that needs to be addressed is whether the project is in conformance with the Sharon Town Plan. If a project were determined not to be in conformance with the Plan, the District Environmental Commission would have a basis to deny a permit. As such, Act 250 reviews can take into consideration protection of those types of resources considered important to the well-being of the community. Accordingly, it is in the interest of the Town to evaluate Act 250 projects affecting Sharon and to offer testimony, as appropriate.

For a Town Plan to be given serious weight under Act 250, the Plan must contain specific and unambiguous language. If a community wants a policy to be recognized by the District Environmental Commission during Act 250 review, it must use firm language such as “shall” or “must” instead of “should” or “could”. The Planning Commission has been selective about where strong language is used in policy throughout this document, as it is important to recognize that the Town Plan should have some flexibility. In instances where flexibility was not wanted, the Planning Commission wrote policy with appropriately strong language.

### **Highway Ordinances**

Sharon has in effect a Highway Ordinance setting forth the standards and conditions for the maintenance, improvement, discontinuance, laying out and acceptance of Town highways. In addition, the ordinance includes provisions related to the reclassification of town highways (Classes 2, 3 and 4).

Lastly, Sharon does have, through its Selectboard, the ability to regulate private access to municipal roads through the issuance of curb cut permits to landowners. Curb cuts are places where a private driveway or road connects to a town highway. In granting a cut onto town roads, the Selectboard can give



consideration to safety issues such as adequacy of sight distance and proximity to intersections as well as conformance with this Plan.

## **B. Non-Regulatory Implementation**

### **Capital Budget & Program**

The creation of a capital budget and program has been discussed in several chapters of this Plan. A capital budget and program is a financing approach that benefits the town greatly in the selection, prioritization, timing and costing of capital projects. Under the capital budget, a project is selected (e.g. fire truck or bridge replacement), a funding source determined (e.g. general taxes, and general obligation bonds) and a priority year given for each activity. Collectively these capital projects make clear when public facilities will be replaced to accommodate projected growth.

In addition, it is noted that under Vermont's Act 250 law, in granting a Land Use Permit for a major development or subdivision, the District Environmental Commission must first find that the project is in conformance with the town's capital budget. [See 10 V.S.A., Section 6086(a)(10).] Accordingly, this mechanism gives the town an indirect method of implementing its policies and priorities as set forth in the Plan.

While both Sharon has an informal system of capital programming, it is recommended that a Capital Budget Committee be established to work with the Selectboard and Planning Commission in the development of a list of capital needs and expenditures, and to formally present a Capital Budget and Program for adoption.

### **Advisory Committees**

State statute authorizes a community, by vote of the Selectboard, to create advisory committees. These committees can have differing roles, some provide advice to the Planning Commission regarding development (for example, a historic review committee as part of a design review district), but more often advisory committees are created to focus on a specific topic in the Plan. The most common advisory committees are the Conservation Commission and the Energy Committee. These groups (outlined in the Natural Resources and Energy chapters respectively) can assist the Selectboard and/or Planning Commission with the creation of policy, but they can also act as the primary source of outreach and education relating to their primary focus point. Sharon has an Energy Committee and a Conservation Commission.

### **Coordination of Private Actions**

Citizens and private enterprise have a vested interest in the well-being of Sharon. The actions of the

private sector, such as the construction of homes and businesses, land conservation, and the use of land for recreation and agriculture, should relate positively to the goals and policies as set forth in this Plan.

It is in the interest of Sharon, through the Planning Commission and Selectboard, to develop a cooperative relationship with private investment activities that may have a significant impact on the community values and policies set forth in the Plan. By working together in a cooperative venture early in the process of planning for a project, an adversarial relationship can be avoided. Contacts that should be maintained include the following:

- Green Mountain Economic Development Corporation
- Vermont Land Trust and Upper Valley Land Trust
- Twin State Housing Trust
- Owners of significant properties of high resource or development value, and
- Major employers in Sharon.

### **Conservation Activities**

Conservation programs are an effective means of securing protection of valuable farm and forestland or significant natural resources. Techniques available involve voluntary work between non-profit conservation organizations and affected landowners for the donation of conservation easements, sales of land, and limited development.

The land trust movement has grown immensely during the past twenty years, particularly in Vermont. Land trusts offer viable means of bringing together the needs of property owners with the community interests. The Vermont Land Trust and the Nature Conservancy are particularly well-recognized organizations. Several organizations, including the White River Partnership, are also involved in water quality protection. It is the intent of this Plan to implement its policies through coordination and the involvement of these organizations and others dedicated to public purposes.

### **Vermont Community Development Program**

Since the mid-1970s, the Vermont Community Development Program (VCDP) has made grant funds available to towns for community projects. Historically, the major focus of the program has been on housing rehabilitation and affordable housing projects benefiting low and moderate-income families, but the program also offers funding for municipal infrastructure investments.

Sharon should investigate the Vermont Community Development Program and its potential to assist the community in addressing its housing and infrastructure needs. The Regional Commission and the Vermont Agency of Commerce and Community Development are resources available to assist.

### **Vermont Local Roads**

The Vermont Local Roads program offers technical assistance to communities which focus on transportation infrastructure and maintenance.

## **C. Responsibility for Implementation**

In order to ensure that the policies of this Plan are implemented, it is essential to identify which municipal panel, organization or citizen is most suited to act on them. Throughout this Plan, the Planning Commission has identified recommendations for action and indicated who should be responsible for them. Generally, responsibility for implementation of the Plan falls to either the Planning Commission (in the case of implementing changes to land use regulations) or the Selectboard (in the case of implementing municipal policy). However, advisory committees as well as other community organizations could also have responsibilities for implementation.

In addition to assigning responsibility, the Planning Commission should also keep track of progress made toward implementing the goals, policies and recommendations of this Plan. This information will be useful to identify areas where additional effort needs to be applied to achieve implementation. It can also be used to describe how successful the community has been at implementation in the next iteration of this Plan, and to guide future policy.

In order to track the progress of implementation, the Planning Commission has included a chart that identifies the policy or recommendation, the responsible party and the progress. See Appendix A.