Cavendish Town Plan

Document History:

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Town Plan adopted by Australian Ballot March 3, 2020.

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Document History

- Planning Commission hearing and approval of re-adoption of Town Plan with inclusion of Visual Access Map - February 22, 2012
- Select board review of Planning Commission proposed re-adopted town plan with visual access map - April 9, 2012
- Select board review of town plan draft and approval of SB proposed minor modifications to plan – May 14, 2012
- Planning Commission hearing for re-adoption of Town Plan with Select board proposed minor modifications – June 6, 2012
- Planning Commission Approval of Re-adoption of Town Plan with minor modifications – June 6, 2012
- 1st Select board hearing for re-adoption of town plan with minor modifications – June 11, 2012
- 2nd Select board Hearing for re-adoption of Town Plan with minor modifications – August 20, 2012
- Cavendish Town Plan Re-adopted by Australian ballot at Special Town Meeting – August 28, 2012
- Confirmation of Planning Process and Act 200 Approval by the Southern Windsor County Regional Planning Commission – November 27, 2012
- Planning Commission is prepared updates in 2016-2019

This report was developed from 2016 to 2019 for the Town of Cavendish with assistance from the Southern Windsor County Regional Planning Commission, Ascutney, VT.

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Chapter 1: Introduction

1.1 Purpose

The purpose of this plan is "to guide future growth and development of land, public services and facilities, and to protect the environment" in the best interest of the citizens of Cavendish. The Cavendish Town Plan was prepared by the Planning Commission and adopted by Australian ballot in accordance with 24 V.S.A., Chapter 117, the Vermont Municipal and Regional Planning and Development Act (i.e. "the Act"). This plan is intended to include the thirteen elements required by §4382 and to be consistent with state planning goals in §4302 of the Act.

Brief History of Cavendish (charter issued October 12, 1761)

The Town of Cavendish is located in the south central part of Windsor County, VT. Originally 7 miles square, Cavendish ceeded 3,000 acres south of Hawks Mountain in 1793 to form Baltimore and in 1842 by legislative decree, 2,000 acres was passed to Chester.

The Crown Point Road was the first highway through Cavendish. Built by order of General Amherst, the British General during the French and Indian Wars to facilitate transportation of supplies between Crown Point, NY and Fort No. 4 in Charlestown, NH, the road went through the Town from the southeast to the northwest corner. History buffs continue to travel the remains of the road today.

In June 1769 the first permanent settler, Captain John Coffeen came to Cavendish from Rindge, New Hampshire. He built an inn in the northwest part of town for revolutionary war soldiers traveling along the Crown Point Road. Other settlers soon followed.

Cavendish has been occupied since the ice age glaciers receded, about 11,000 years ago. While the earliest inhabitants would have used the Black River and surrounding area for hunting and fishing, there is archeological evidence that an Archaic Indian village existed in Cavendish 5,000-7,000 years ago.

The first Europeans would have traveled along the Indian trail that became known as the Crown Point Road. Playing a significant role in the French and Indian and Revolutionary Wars, the first deeded land was settled by Captain John Coffeen in 1769 in close proximity to the Road. One of the signers of Vermont's Constitution, Coffeen came to Cavendish seeking religious freedom.

By the early 1800s, the center of town had shifted from the Crown Point Rd area, to the Black River where the river gave rise to a variety of industries that used water powered machinery-woolen, grist, pulp and saw mills. Two villages grew up within the Cavendish township-Proctorsville, named for Leonard Proctor, and Duttonsville, for Salmon Dutton. The latter would eventually be called Cavendish.

In addition to the industrial complexes along the Black River, farming was a staple for the town, with small businesses, such as a hat shop, tanneries, cabinet makers and tinsmiths, flourishing to provide goods and services to farmers and mill workers. While sheep was an initial cash crop, this gave way to dairy farming after the Civil War.

The arrival of the railroads in the late 1840s impacted the town in numerous ways. While blasting for the railroad tracks, Phineas Gage survived a major brain injury when a tamping rod went through his head, thus ushering in the modern understanding of the brain and its functions.

More importantly to the town's economics, the train increased the ability to ship goods and expand markets. It also opened the town to its first wave of tourists, some of whom bought "second homes" to escape the heat of the city in the summer months.

While the Black River made Cavendish a "mill town," this rapidly changed after WWII, when military contracts - for both Gay Brothers Mill in Cavendish village and Proctor Reel in Proctorsville ceased. By the 1950s, with the mills gone and farming no longer a viable means of livelihood, many traveled to other areas for work, e.g. the machine shops in Springfield, General Electric in Ludlow. Fortunately, the Gay Brothers Mill was purchased by Mack Molding, which continues to operate in Cavendish village.

The town's highest census recorded was in1870 with 1,823 residents. This number would decline rapidly due to job availability in more urban areas as well as westward expansion.

Beginning in the 1980s, with the transformation of Okemo Mountain into a four seasons resort, tourism and second homes have become major economic drivers. The 2017 Cavendish Grand List indicates that approximately 54% of the town is now owned by people who do not live here.

The opportunity to live safely, freely and be a place of sanctuary has drawn many to the town. As early as 1805, a former slave and Revolutionary War veteran found a home in Cavendish. Peter Tumbo (Tumber) signed the freeman's oath and owned 50 acres of land. He died at the age of 106, with his death being noted in the anti-slavery papers of the day.

With Cavendish native Ryland Fletcher being Governor of Vermont, as well as the town's strong anti-slavery stance, abolitionist John Brown spent a week in Cavendish in 1857. Brown had hoped to secure some of the $20,000 the Vermont Legislature had approved to support anti-slavery settlements in Kansas.

In 1976, Aleksandr Solzhenitsyn, the Nobel Prize winner for literature and anti-communist, sought refuge in Cavendish. He would spend almost 18 of the 20 years he was in exile here writing "The Red Wheel."

Today the single largest source of work is self-employment in building related trades, and services that cater to tourism. With the arrival of the Internet age, those parts of town that are fortunate to have high speed Internet, telecommuting and home business ventures flourish. There is a growing artistic community as well as a return to small family farming.

Cavendish has been hit by a number of natural disasters. Most severe were:

- In 1927 the Black River spilled over its banks washing out lower Cavendish Village and creating a large gully. The flood water took seven houses, ten barns, four garages and eight automobiles.
- In 1938 a major hurricane struck the town: damage was mostly caused by winds that blew down thousands of trees, blocking nearly every road.
- In June 1973, heavy rains caused flooding that washed out many roads and bridges.
- On July 21, 2003, a violent storm with heavy rain, lightning and severe winds hit the town. Much damage occurred to property, and countless trees were blown down. The exact classification of the storm was never determined: a tornado, micro burst or straight-line blow-down?

- ❖ In 2011 hurricane Irene devastated the state: all roads connecting Cavendish to the outside were closed due to the flooding, a chasm on the eastern side of Cavendish Village undermined Route 131, and a bridge on Davis Road was destroyed. The flood waters inundated Proctorsville Village, causing major damage. National Guard troops from around the country came to Vermont to rebuild bridges and bring supplies to isolated communities.

1.2 Planning Process Summary

The Town Plan for Cavendish was last adopted, with a few amendments, on August 28, 2012. It was most recently substantively rewritten in 2007.

An update of the Cavendish Town Plan is required in order to make sure that it adequately reflects the current needs of the community and to:

- ✓ Bring this planning document up to date with the newest data, information and trends that affect the Town.
- ✓ Add the new required plan elements under the Act (i.e. economic development, flood resilience).
- ✓ Address the requirements of Act 59 in order to support maintaining Village Center designation.
- ✓ Incorporate suggestions of the Southern Windsor County Regional Planning Commission (SWCRPC) based upon their recent consultation with the Town as required under §4350 of the Act.

The Cavendish Planning Commission prepared updates to this plan as required under §4384 of the Act. Staff from the SWCRPC assisted in this process funded by a Municipal Planning Grant and hired by the Town. A Town-wide survey was conducted in 2012 to inform this Town Plan update. (See Appendix A for a summary of the survey results.) This Town Plan was then adopted by Australian ballot per §4385 of the Act.

Town plans need to be updated, amended or readopted every eight years, if not sooner, under §4387 of the Act.

After adoption, the Town will request that the SWCRPC consider approving the Cavendish Town Plan and confirming the local planning process under 24 V.S.A. §4350. Doing so makes the Town eligible for Municipal Planning Grants, Village Center designation and other benefits per the Act.

1.3 Community and Demographic Trends

Cavendish is a small town with a population of under 1,400 year-round residents. Like most northern New England towns, Cavendish experienced the highest historical population rate in the mid-1800s, followed by a decline as people moved away in the late 1800's and early 1900's. In more recent years, the Town experienced population growth between 1990 and 2000, largely due to the close proximity of the Okemo Mountain Resort, which expanded during that time frame. The economic conditions around 2007-11 had a large effect on Vermont ski towns, resulting in loss of population and a lack of new building construction. This mirrors the trends experienced

in Cavendish between 2000 and 2010. See Appendix B for more information on population trends in Cavendish.

The Town of Cavendish encompasses 24,832 acres in total land area. The State owns about 4,540 acres in Cavendish and as of 2013, 8,818 acres were enrolled in the Current Use program. These areas combine to comprise more than half of the land area in Town, which limits the potential for growth, but also helps to protects sensitive natural areas and preserve rural character.

Notable trends based upon an analysis of readily available data include the following:

A. Key population trends between 2000 and 2010[1] include:

1) The 2010 population of 1,367 in the Town of Cavendish represents a decrease of 7% from the 2000 population of 1,470 year-round residents.

2) Census data trends suggest a decline in families with young children, indicated by 22% to 37% declines in age groups 25-44 years and under 10 years of age.

3) The 10-14 and 55-64 age groups increased significantly during this period.

4) Age groups between 75 and 84 years old also declined sharply.

Volunteer efforts are very important for a variety of local initiatives and events. Retired residents are some of the best community volunteers, so declines in this demographic group are concerning.

B. Enrollment at the Cavendish Town Elementary School was at its highest around 1980. Enrollment has been fluctuating ever since. (See the Education Chapter for more information.)

C. Notable housing trends include:

1) The number of total housing units increased from 860 in 2000 to 965 units in 2010[2].

2) During the same time period, the number of owner-occupied units declined by 3%, while the number of seasonal units and vacant units both increased by 59% and 54%, respectively.

A contributing factor to the quality of life enjoyed by Cavendish citizens is the sense of community that comes from year-round residents participating actively in the schools, business, town governance, and community life. Of concern is the possibility of a decline in community activism and involvement as the number of year-round occupied housing units decreases and seasonal units increase.

3) As discussed in the Housing section of the plan, there is a growing disparity between the incomes of residents and the cost of housing. Nearly 33% of owner-occupied households and about 46% of renter-occupied households spend more than 30% of their household income on housing[2].

[1] Based on 2000 and 2010 data from the U.S. Census Bureau
[2] Based on American Community Survey 2007-2011 data from the U.S. Census Bureau

4) Based upon recent trends and population projections[3], significant population growth is not anticipated for the next 20 years.

[3] The recent Capital Budget and Program project involved population projections.

Chapter 2: Goals & Objectives

2.1 Statement of Goals and Policies to Guide the Future of Cavendish

The people of Cavendish desire to maintain the rural character of the community while encouraging the economic well-being of its residents. The rural character is exemplified by the many attributes of the Town, such as the amount of wooded and undeveloped areas, streams, ponds, and abundant wildlife; the absence of bright lights in both the outer reaches of the town as well as both village areas; the low volume of traffic; and the lack of objectionable noise. Both the Cavendish and Proctorsville villages share traditional character exemplified by a mixture of residential and commercial uses that exist in harmony, unchanged by sudden, poorly planned development. The characteristics of both villages must be preserved, while encouraging economic development and affordable housing investments to occur within the villages. Typical suburban development does not conform with the rural character of the existing villages.

Most residents live in Cavendish by choice, thereby indicating a preference for this rural character rather than an urban or suburban community. They want growth to occur at a pace and in a manner, that does not destroy our rural character or result in rising taxes. Growth that is good for the Town enhances the social, environmental, cultural, and economic values of our rural community. Growth and development shall not create a burden on the taxpayers' ability to support the Town.

The following goals and objectives provide a general overview of the direction in which the residents of Cavendish want to see development occur in the town. Each chapter of the Plan provides specific objectives and strategies for achieving the objectives. As used in this Town Plan, key terms are defined below:

Goals: Broad statements of what the community wishes to ultimately achieve. These are listed in Chapter 2.

Objectives: Agreed upon policies and standards that are to be followed in order to achieve the goals. These are listed in Chapter 2.

Strategies: Strategies or recommendations are identified as action steps that the Town can take to implement the goals and objectives of this Town Plan. These are primarily listed in Chapter 7, but additional strategies are included per the Act in Chapters 3, 4, 11 and 12.

Goal 1: To ensure development that maintains the rural atmosphere of the community and historic settlement pattern of compact village centers separated by rural countryside.

Objectives:

1. Encourage intensive development only in village centers.
2. Discourage strip development in the Town of Cavendish.
3. Development that occurs in rural areas shall not have a negative impact to natural, cultural, or aesthetic resources.
4. Business and industrial growth shall occur within and adjacent to areas where business and industry now exist and where Town water and sewer are available

5. Public investments, including the construction or expansion of the infrastructure, shall reinforce the general character and existing growth patterns consistent with a reasonable pace of growth for the area.
6. Development shall conform to the Future Land Use Map categories.
7. Growth and development shall occur at a rate that will not burden the taxpayers' ability to support the Town and maintain the rural areas.
8. The town should develop ordinances to assist in implementing these goals.

Goal 2: To promote a strong and diverse economy that provides satisfying and rewarding job opportunities.

Objectives:

1. Commercial growth shall occur only in village centers and areas designated for industry on the Future Land Use Map.
2. Revitalize and rehabilitate existing and historic village center structures.
3. Support home occupations that conform to the town plan and are appropriate relative to the adjoining land uses. Home occupations must be clearly incidental to the use of the property as a residence.
4. Encourage businesses to employ sound environmental practices.
5. Encourage development of town wide broadband internet.

Goal 3: To maintain and broaden access to educational, vocational, and cultural opportunities for all Town residents. The GMUSD, the Green Mountain Unified School District shall develop an action plan for the schools based on their vision statement.

Objectives:

1. Educate the children of Cavendish from Kindergarten to 6th grade at the Cavendish Town Elementary School.
2. Ensure that the facilities can accommodate student population growth.
3. Encourage development of educational and cultural opportunities for all residents.
4. Support community wide cultural events and activities.
5. Support town social media platforms as a means to share community information.

Goal 4: Promote and maintain a safe, convenient, economic, and energy efficient transportation network that respects the integrity of the natural environment, as well as the historical and esthetic value of the existing roads.

Objectives:

1. Improve or expand public utilities and transportation in existing corridors to encourage desired development patterns.
2. Encourage alternative forms of transportation, such as walking, bicycling and public transportation.
3. Encourage transportation improvements that are compatible with the character of the Town.

Goal 5: To protect important natural and historic features of the Cavendish landscape, including woodland, wetlands, scenic sites, significant architecture, villages, wildlife habitats, view sheds, and agricultural land.

Objectives

1. Identify and include additional important resource areas on Future Land Use Map and develop a conservation plan to protect and preserve those features.
2. Encourage the long-term protection of significant scenic roads and highways, waterways, and views; cultural and historic resources; and important resources and recreation lands.
3. Maintain the tree canopies and stone walls along the existing roads.

Goal 6: To maintain and improve the quality of air, water, wildlife, and land resources.

Objectives:

1. Ensure that sound practices are followed during and after extraction of earth minerals and resources.
2. Protect and improve the water quality of the Town's rivers, lakes, streams, groundwater, and drinking water supplies.
3. Establish conservation measures for critical wildlife habitat.
4. Ensure that noise impacts from the extraction of earth minerals and resources are properly minimize and mitigated.
5. Ensure that land and water resources are minimally impacted and restored to an approved condition following extraction operations.

Goal 7: To promote the efficient use of energy through conservation and the use of renewable energy resources.

Objectives:

1. Conserve energy through reduced consumption and efficient use within residential, commercial and municipal structures in Cavendish in order to save financial and natural resources;

2. Promote and encourage the development and use of locally available and environmentally sound renewable resources to replace non-renewable resources;

3. Increase public awareness of energy issues by sharing knowledge and resources and to build public support for energy efficiency and sustainable energy policies and practices;

4. Investigate, consider and implement cost-effective energy conservation and efficiency measures in town facilities and operations.

Goal 8: To maintain and enhance recreational resources and opportunities.

Objectives:

1. Maintain recreation facilities and infrastructure to provide recreation opportunities for all residents.

2. Ensure the preservation of, and access to, important natural and scenic resource areas for recreational use.

3. Investigate economic resources for a bike path.

Goal 9: To strengthen agricultural and forest industries.

Objectives:

1. Support Current Use Program for agricultural and forest lands.

2. Protect primary agricultural soils for farming and to maintain the potential for agricultural use.

3. Consider forest and agricultural lands for their forest and agricultural productivity prior to any non-forest or agricultural uses.

4. Encourage businesses and industries that add value to locally-produced agricultural or forestry products.

Goal 10: To encourage the availability of safe and adequate housing in the town of Cavendish.

Objectives:

1. Encourage housing that meets the needs of diverse social and income groups.

2. Provide new and rehabilitated housing that is safe, sanitary, and coordinated with the provision of necessary public facilities and utilities.

Goal 11: To plan for, finance, and provide an efficient system of public facilities and services to meet present and future needs.

Objectives:

1. Maintain a Capital Program and Budget Plan for public utilities and facilities.

Goal 12: To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process.

Objectives:

1. Promote programs that support child care, including child care financing, infrastructure, business assistance for child care providers, and child care workforce development.

Goal 13: To encourage a flood resilient community.

Objectives:

1. Development plans for lands subject to periodic flooding must comply with local, state and federal flood hazard regulations in order to protect the health, safety and welfare of the public.
2. Any development within the river corridor areas must meet the following standards. For the purposes of this standard, "development" includes any human-made change to structures or land, including but not limited to new structures, improvements of or additions to existing structures, mining, dredging, filling, grading, paving excavating, drilling, or the storage of equipment or materials.
    a) Improvement of existing structures, and any associated fill as needed to comply with elevation requirements in the Special Flood Hazard Area shall not decrease the distance between the existing primary building and the top of bank;
    b) Locate accessory structures within 50 feet of the existing primary building provided that the location does not decrease the distance between the existing primary structure and the top of bank;
    c) Development shall not increase the susceptibility of that or other properties to fluvial erosion damage;
    d) Development shall not increase the potential of materials being swept onto other lands or into the stream and causing damage to other properties from fluvial erosion;
    e) Development shall not cause an undue burden on public services and facilities including roads, bridges, culverts, and emergency service providers during and after fluvial erosion events;
    f) Bridge and culvert projects must have a Stream Alteration Permit; and

g) Channel management activities must be authorized by the Agency of Natural Resources.

Chapter 3: Transportation

As a rural town, the transportation system in Cavendish is heavily reliant on automotive travel, walking, and bicycling. Public transit is also important. A challenge for the Town is to accommodate traffic capacity and safety needs, while also maintaining the special rural character of our roads. Making our roads safe and free of hazards is of paramount importance. However, the elements that make our roads so special, such as the canopy created by stately old maples or undulating stone walls and pastoral vistas, contribute to our sense of place and shall be preserved and enhanced. The Town recognizes that there should be a balance between aesthetics and the safety of all users of our roads.

3.1 Description of Present and Prospective Transportation Facilities

An inventory of existing transportation facilities is summarized in this section as well as a review of relevant trends and needs.

3.1.1 Roadways

Of the approximately 81 miles of roadways located in Cavendish, about 67% are maintained by the Town of Cavendish. (See Table 3.1 Highway Miles Table for a breakdown of road centerline miles based on road classification type.) Major roadways in Cavendish include State Highways and Class 2 Town Highways.

Table 3.1: 2014 Highway Miles by Classification

Highway Classification	***Miles***
Interstate Highways	0
State Highways (Non-Interstate)	11.822
Class 1 Town Highway	0
Class 2 Town Highway	11.850
Class 3 Town Highway	42.84
Class 4 Town Highway	4.11
Legal Trail	0
State Forest Highway	**3.693**
Private Roads	**6.831**

Source: VTrans 2014 Mileage Statistics http://vtransplanning.vermont.gov/maps/publications and VTrans GIS shapefile 2014 www.vcgi.org

State Highways: VT Route 131 runs east-west and VT Route 103 runs diagonally northwest-southeast through Cavendish. VT Route 103 is designated as part of the National Highway System (NHS). NHS roads are intended to be part of an "interconnected system of principal arterial routes" that "serve inter-state and inter-regional travel."

Class 2 Town Highways: These are the most important town highways as they provide important connections to other towns or destinations. These roads include Depot Street, Twenty Mile Stream Road, Tarbell Hill Road, Felchville Gulf Road, Knapp Pond Road and Mill Street.

Class 3 Town Highways: These are town-maintained highways that function primarily to provide access to properties. They are generally maintained to be passable all seasons of the year. In general, through traffic should be discouraged on these roads in order to preserve the rural appearance and way of life in Cavendish. Through traffic and high-speed travel is discouraged on these roads. Local roads within villages share many of the same characteristics as their rural counterparts; and because they provide access on a much more concentrated scale, safety is a significant concern.

Class 4 Town Highways: Class 4 town highways are important resources for recreation, access for forestry and agricultural activities, and potential access for future development. The Town shall not allow development on lands accessed exclusively from a Class 4 road, unless the developers upgrade the Class 4 to Class 3 standards.

Private Roads: Private roads typically serve the same purposes as Class 3 town highways, but are privately constructed and maintained. Private roads must provide adequate and safe access for residents, typical residential delivery services and emergency vehicles. Private roads shall be held to the same standard as Class 3 town highways for safety reasons and to protect the Town's interest if a private road is ever considered for reclassification as a town highway.

Table 3.2: Traffic Volumes at Select Locations in Cavendish

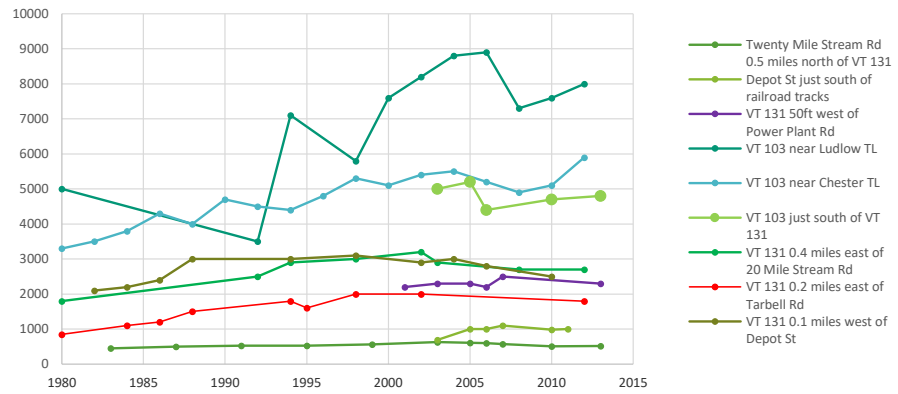
Route/ Road	*Location*	*Year*	*AADT**	*ADTT***	*% Trucks***
Twenty Mile Stream Rd (TH3)	0.5 miles north of VT 131	2013	520		
Depot St (TH1)	Just south of railroad tracks	2011	1,000		
VT 131	50ft west of Power Plant Rd	2013	2,300		
VT 103	near Ludlow TL	2012	8,000	756	9.45%
VT 103	near Chester TL	2012	5,900	781	13.23%
VT 103	just south of VT 131	2013	4,800		
VT 131	0.4 miles east of 20 Mile Stream Rd	2012	2,700	203	7.50%
VT 131	0.2 miles east of Tarbell Rd	2012	1,800		
VT 131	0.1 miles west of Depot St	2010	2,500		

** Average Annual Daily Traffic (AADT)*

*** Truck percentage and Average Annual Truck Traffic (AATT) is for medium and heavy trucks. Not available at all locations.*

Source: VTrans Automatic Traffic Recorder Station History 1975-2013 and 2013 Automatic Vehicle Classification Report http://vtransplanning.vermont.gov/research/traffic/publications

Figure 3.1: Traffic Trends in Cavendish (1980 - 2013)



Traffic Patterns and Safety Analysis: Traffic on both VT Route 131 and VT Route 103 has generally increased through the years with noticeable high percentages of truck traffic. (See table3.2 & figure 3.3 for more information.) Truck volumes on the state highways can be as high as 13% of total volumes (see the Traffic Volumes Table). This is of particular importance, especially on VT Route 131, since it runs through both villages and in front of the Cavendish Town Elementary School. Issues such as speed and safety, noise, and quality of life must be addressed. The Town supports efforts to maintain safety due to the increase of traffic on VT Route 131. Recent improvements to improve safety include, but are not limited to:

- ✓ Flashing yellow lights for the school zone were added in both directions approaching the school on VT Route 131;
- ✓ Installing a street light at the intersection of VT Routes 131 and 103;
- ✓ Realigning Chubb Hill Road to intersect with VT Route 131 at a right angle; and,

- ✓ Installing advance warning signs to try to prevent crashes in the Chubb Hill ledges area along VT Route 131.

Two sections of VT Route 103 are identified by VTrans as high crash locations, including a section through the Proctorsville Gulf and by the VT Route 131 intersection. Other safety concerns are identified in the *2014 Southern Windsor County Regional Transportation Plan* (Volume 2 of the *Regional Plan*).

Town Roadway Condition Assessment: In 2014, the Town completed an inventory and condition assessment of roadways, bridges and culverts. The findings are summarized below.

Table 3.3: 2014 Road Inventory	
Surface Condition	% of road miles
No maintenance	9%
Routine maintenance	81%
Preventative maintenance	1%
Rehabilitation	4%
Reconstruction	6%

Table 3.4: Culverts by condition	
Good	76.7%
Fair	14.6%
Poor	4.6%
Critical	0.4%
Urgent	0.0%
Closed	0.0%
Unknown	3.7%

In general, roadways were found to be in relatively good condition; a majority of the network requires only routine maintenance. About 10% of the Class 2 and 3 town highways were identified as needing substantial work.

Cavendish has 13 town highway bridges. Bridge #58 on Depot Street is scheduled for replacement in 2019. The project is included in the Capital Budget and Program.

A total of 733 culverts were identified within town rights-of-way. About 5% of those structures need immediate attention. All replacement structures will need to be adequately sized per the Town Highway and Bridge Standards, most recently adopted in 2014.

Commuting Patterns: A small percentage of Cavendish residents work within town; many residents (90%) work at jobs located in other towns. Between 2003 and 2011 the number of people who both lived and worked in Cavendish declined. A substantial portion (81%) of those people that work at jobs located in Cavendish commute from their homes located elsewhere. (See the Economic Development Chapter for more information about commuting patterns.)

Comparing commuting patterns reported for 2003 and 2011, Cavendish residents travel distances to work have increased (see Table 3.5):

- The number of residents travelling less than 10 miles reduced from 50% to 37%;
- The number of residents travelling 10 to 24 miles increased from 30% to 39%;
- There was a small increase in the number of residents who travelled 25 to 50 miles.

Table 3.5: Distance to Work

Miles Travelled to Work	Distance to Work for Cavendish Residents				Distance to Work for Cavendish Workers			
	2003		2011		2003		2011	
	Count	%	Count	%	Count	%	Count	%
Total	502	100.0%	617	100.0%	394	100.0%	311	100.0%
Less than 10 miles	250	49.8%	230	37.3%	185	47.0%	151	48.6%
10 to 24 miles	148	29.5%	241	39.1%	106	26.9%	91	29.3%
25 to 50 miles	42	8.4%	79	12.8%	56	14.2%	39	12.5%
Greater than 50 miles	62	12.4%	67	10.9%	47	11.9%	30	9.6%

Source: Longitudinal Employer-Household Dynamics (LEHD) for 2003 and 2011 (http://onthemap.ces.census.gov/)

3.1.2 Scenic Roads

Scenic roads are discussed in the Scenic Resources section in Chapter 5.

3.1.3 Bicycle and Pedestrian Facilities

Maintaining sidewalks in good condition within the village centers is a priority. Existing pedestrian facilities in Cavendish consist of about 6,600 linear feet of sidewalks within the two villages. According to an inventory completed in 2012, nearly half of the sidewalk network needs investment. Since sidewalk improvements can be expensive, grants are needed in order to complete the desired improvements. Priority needs are identified in the Capital Budget and Program.

Recently completed sidewalk improvements include:

- ✓ In 1999, sidewalks were constructed and bike racks installed around the village green in Proctorsville in conjunction with the Proctorsville Revitalization Project.
- ✓ Sidewalk improvements were constructed in 2009 along VT Route 131 in Proctorsville.

Bicycling facilities are generally limited to roadway shoulders in Cavendish. Twenty Mile Stream Road and VT Route 131 and 103 were identified as desirable bicycling routes in the *2006 Southern Windsor County Bicycling and Walking Plan*. However, heavy traffic and narrow shoulders make these roads dangerous for bicyclists, especially children and less experienced riders. Where safety concerns and road widths allow, the Town supports the narrowing of travel lanes and widening of shoulders to better accommodate bicycle traffic. In village centers, where widening of shoulders may not be possible, alternate routes, separate paths or shared lane markings may be necessary for bicycle traffic.

The Town continues to study and plan for a multi-use path that would connect the villages of Cavendish and Proctorsville, and would continue to Fletcher Fields on the border of Ludlow. The Town supports the construction of this pathway as long as it has no negative impacts on natural or cultural resources and is planned in a fiscally responsible fashion.

3.1.4 Public Transportation

Southeast Vermont Transit Inc. (SEVT) currently offers commuter bus service, dial-a-ride and Medicaid transportation services in southern Windsor County, Windham County, and parts of Southern Bennington County. Existing services include connections between Springfield and Brattleboro, Springfield and the Upper Valley, Bellows Falls to Ludlow and Rutland, and Bellows Falls to Springfield. SEVT works cooperatively with human service agencies to provide transportation services to persons with disabilities. SEVT also offers ridesharing services and

maintains a database of people interested in carpooling. Service information is available online at www.crtransitsevtransit.orgcom or by calling (802) 460-8487.

3.1.5 Railroad

Green Mountain Railroad (GMR) travels through Cavendish on the route that extends from Bellows Falls to Rutland. Currently this corridor is used primarily for freight traffic. An excursion train, the Green Mountain Flyer, runs from Bellows Falls to Ludlow during the fall foliage season. There are no planned expansions of passenger rail along the corridor at this time.

3.1.6 Aviation

The closest commercial airports to Cavendish are in Rutland, VT and in Lebanon, NH. Larger commercial airports are located in Burlington; Manchester and Concord, NH; Albany, NY; and Hartford, CT. Hartness State Airport, located in Springfield, has the second longest runway in the state, after Burlington. It is used daily for general aviation and gliders, and weekly by the Catamount Combined Squadron of the Vermont Wing of the Civil Air Patrol (CAP), the civilian volunteer auxiliary of the U.S. Air Force. Hartness is used on a less frequent basis for transportation to local ski areas, national and local soaring events, corporate jets for business and events in the Vermont and New Hampshire areas adjacent to Springfield; National Guard and CAP training missions; and Vermont State Police and CAP drug enforcement activities; disaster relief, and search and rescue missions.

3.1.7 Parking

Parking is primarily accommodated by on-site parking at each property. There are no municipally-owned public parking facilities except those provided at each public facility site (e.g. CTES, Town Offices, Greven Field, Fletcher Fields). On-street parking occurs within the villages; on-street parking spaces are not presently delineated with pavement markings.

3.2 Summary of Priority Transportation Needs

The existing transportation is generally considered adequate to handle the anticipated future need, with routine maintenance and planned improvements. At this time, priority transportation needs include the following listed by priority within generalized categories:

Roadway and Structures:

1. Bridge #58 on Depot Street, Proctorsville was replaced Spring/Summer 2019.
2. Replace/upgrade culverts per adopted Town Specifications; maximize replacements per annual program funding (see Capital Budget and Program).
3. Apply for funding through the VTrans Structures Program for priority smaller bridge projects as determined by the ongoing condition assessment.
4. Apply for Class 2 Town Highway funding through VTrans to help pay for pavement resurfacing priority needs, based upon the most current condition assessment.

Sidewalks:

1. Cavendish Phase 1: between the Town Offices and Mack Molding
2. Cavendish Phase 2: between the CVFD Firehouse and the "Canyon"
3. Cavendish Phase 3: between Black River Health Center and western end of sidewalk
4. Proctorsville Phase 2: on VT 131 between Singleton's and the Castle (north side), and on Depot Street between the bakery and the southern end of sidewalk (east side)
5. Proctorsville Phase 3: VT 131 eastern section (long-term project)

Bike Path:

1. Seek funding to determine the feasibility of constructing a multi-use path connecting the two villages and Fletcher Fields.

Transportation Policies

1. The Crown Point Military Road shall be considered a recreational as well as cultural resource. Support efforts to restore the original alignment and make it accessible by foot. Maintain CCMR markers through town.
2. Support efforts to create a bike path system through the town and coordinate with other towns to connect the paths.
3. Support all modes of transportation so that residents may choose to become less dependent on single-occupancy vehicles.
4. Consider bicycle and pedestrian circulation and access when planning for the development of property in the villages of Proctorsville and Cavendish.
5. Prohibit the relocation of cross-country overhead utility lines to roadsides, unless the proposed, new lines are underground.
6. Consolidate driveway curb-cuts in developments and subdivisions.
7. The installation and/or construction of new landing sites for commercial and personal aircraft are prohibited in the Town of Cavendish. This prohibition specifically does not apply to police, emergency and disaster response aircraft which may land and takeoff as may be required and safely accomplished.

Transportation Recommendations

1. Enforce speed limits and introduce traffic calming measures.
2. Identify and apply for federal and state grants that would improve our village pedestrian walkways.
3. Commercial and private aviators shall utilize existing regional aviation facilities for their activities.
4 Improve local class 3 & 4 roads only as needed.

Chapter 4: Utilities and Facilities

Expansion of public utilities, facilities, and services shall be based upon a projection of reasonably expected population increase and economic growth, and should recognize the limits of the Town's human, financial and natural resources. In addition, any proposed public facilities shall recognize the Goals and Objectives set forth in the Town Plan. The plan is a basis for the Capital Program and Budget adopted by the Select board as authorized by V.S.A. Title 24 Chapter 117, Section 4426. The Capital Budget and Program enables Cavendish to plan for its future capital investments and operational needs. These steps will provide Cavendish with a formal defined statement about Cavendish's own growth capacities, limits and serve as a legal tool in Act 250 proceedings under Criterion 9 (A) "Impact of Growth."

Significant population growth is not anticipated for the next 20 years. Other than routine maintenance and planned system upgrades, the existing municipal facilities should be adequate for this anticipated 20-year period. Capacity expansions of the roadway, water or sewer systems are not required to accommodate this modest level of anticipated population change. Existing levels of municipal services should also be sufficient for this anticipated future demand.

Developers shall pay for infrastructure expansions or increases in municipal services required if the demands to serve the new development exceed existing and anticipated capacity levels.

4.1 Description of Present and Prospective Public Utilities and Facilities

4.1.1 Water System

Table 4.1: Summary of Municipal Water and Sewer Infrastructure

Item	Amount	Description
Primary Water Source	150 Gal/Minute	Capacity
Secondary Water Source (permit pending)	N/A	
Cavendish Water Tank	200,000 Gal	Capacity
	75,000 Gal	Avg Use
Proctorsville Water Tank	250,000 Gal	Capacity
	75,000 Gal	Avg Use
Water Line	8.5	Miles of Line
Wastewater Treatment Plant	150,000 Gal/Day	Design Flow
	71,333 Gal/Day	12-Mo Avg Flow
Sewer Line (gravity)	5	Miles of Line
Sewer Line (forced main)	1	Miles of Line

The Town water system serves about 300 households in both Proctorsville and Cavendish Villages as well as a number of commercial customers (e.g. Mack Molding, Cavendish Pointe Hotel). The water source is a gravel-pack well that yields 80 gallons per minute, with capacity of up to 150 gallons per minute. A second well has been drilled. Presently, both villages use an average of approximately 75,000 gallons per day. The two storage tanks, one in each village, have a combined storage capacity of 450,000 gallons. The Town wells are located in Cavendish village. The water source is protected by a State approved wellhead protection plan that is in compliance with State and Federal standards.

In 2017, the Town garage and several pieces of equipment were damaged by fire. A new Town garage was constructed 2017-2019 at the former sand pit along Route 131 East of the Village of Cavendish. Replaced/new equipment includes the building, tools, and one new truck. Funding sources included insurance and a municipal bond. The new facility includes and accommodates four (4) bays, an office, bathroom, and storage areas.

Cavendish invested $3 million to improve the water system within the last ten years. There is limited ability to take on more debt at this time. However, the following needed projects are planned for the next 20 years:

1. Paint the water storage tank (i.e. routine maintenance so tanks last until they can be replaced)
2. The Cavendish water storage tank was replaced with a glass-lined steel tank with a capacity of 200,000 gallons. (The existing 250,000-gallon tank in Proctorsville has sufficient capacity at this time.)
3. Replace/upgrade water telemetry for the Cavendish tank and add telemetry to the Proctorsville tank (i.e. digital technology).

Another community water source is located off East Road, at a private campground. The remainder of Cavendish is served by on-site water wells, which are subject to approval by the Vermont Department of Conservation.

4.1.2 Sewer System

The Town maintains approximately 5 miles of gravity sewer line and 1 mile of sewage forced main, serving just under 300 households in both Proctorsville and Cavendish Villages. Cavendish has one sewage treatment plant which serves both villages with a design flow of 150,000 gallons per day. It was expanded in 1991 to accommodate increased growth and the current 12-month average flow is 71,333 gallons per day. In 2004, the Town performed major maintenance on the plant, including sludge removal and replacement of aeration lines. It also made numerous improvements to sewer lift stations in recent years. The existing capacity is generally adequate for anticipated, modest future growth. The sewer system projects identified are generally needed to improve energy performance or enhance operating conditions, including:

1. Equipment improvements at the Mill Street, Midway, Depot and Greven Pump Stations.
2. Sewer manhole improvements prevent storm water inflow.
3. Replace cutter assembly and new grinder for the treatment facility headworks.
4. Treatment facility aerated lagoons: sludge removal, replace blowers and install D.O. pacing system for energy efficiency.

When equipment is replaced consideration shall be given to making energy efficiency improvements. The older sewer lines consist of cement asbestos pipe. If major work is planned along these sewer mains, consideration shall be made to replace them in accordance with contemporary standards (i.e. plastic or ductile iron pipe).

The remainder of Cavendish is served by on-site wastewater systems that are permitted by the State of Vermont.

4.1.3 Fire, Ambulance, and Police Services

Cavendish has two volunteer fire departments, each with a tanker and pumper and other apparatus. They are housed in two buildings, one in Proctorsville, and the other in Cavendish. The fire departments belong to a mutual aid system with neighboring towns.

Ludlow Ambulance provides emergency service.

Cavendish is connected to the Vermont State Police barracks in Windham. The Windsor County Sheriff's Department in Woodstock provides part-time patrol coverage to Cavendish on a contract basis.

4.1.4 Recreation

The Town currently has two playgrounds, one next to the Town Office and one at the Elementary School, and two little league fields at Greven Field. Fletcher Field offers additional baseball and soccer fields. Knapp Ponds offer fishing, canoeing and kayaking opportunities. Proctor Piper State Forest offers good hiking and hunting opportunities. The Black River is an important recreational resource, and is popular for fishing, kayaking and canoeing, and enjoyment of its scenic qualities. A section of the river, from Tarbell Hill Road to the Weathersfield Town line, on the east end of town is designated as a trophy trout stream and is stocked by the State Fish and Wildlife Department.

The Town recognizes the importance of a bike and pedestrian path system that connects both villages as well as bike paths from other towns (see the discussion in the Transportation Chapter). In addition, residents enjoy hunting, hiking, biking, cross-country skiing, snowshoeing and snowmobiling on many trails located in town.

4.1.5 Town Government Administration

The Town of Cavendish is governed by a five member Select board whose policies are administered by a Town Manager.

4.1.6 Solid Waste Disposal and Recycling

Cavendish is part of the Southern Windsor/Windham Counties Solid Waste Management District (SWCSWMD), which has prepared a Solid Waste Implementation Plan.

Cavendish has a transfer station next to the sewer plant on Route 131 that handles normal household refuse and a limited amount of non-toxic construction debris. It provides recycling through a new single-stream operation. In addition to single-stream, the station collects mixed metals, electronics, tires and light bulbs. Toxic waste is not allowed at the transfer station. The Cavendish Transfer Station has sufficient capacity to accommodate the current population needs. The facility's permit was reissued and will be valid until March 2023. A plan was established for the collection of organic wastes starting in July 2017 per Act 148 and other requirements.

In November 2013 Cavendish instituted zero-sort recycling during, which increases recycling opportunities for residents, but required purchasing new equipment.

4.1.7 Electric Utilities

The Town of Cavendish is served by two electric utility providers, Ludlow Electric and Green Mountain Power (GMP). Ludlow Electric serves the village of Proctorsville and a limited number of residents on the west side of town, while GMP serves the remainder of town including Cavendish Village. There is a GMP hydroelectric plant at the Cavendish Gorge that is capable of generating up to 1,600 KW per hour. The Coolidge Substation is located in Cavendish near the Ludlow town line. Vermont Electric Power Corporation (VELCO) owns the substation and a transmission line that runs through the town. In 2017, VELCO began an upgrade to the existing transmission line that connects the Coolidge and Ascutney Substations.

In 2014, the Town constructed a solar farm project on a hill located behind the wastewater treatment facility. These municipal facility energy projects are discussed in more detail in the Energy Chapter.

4.1.8 Communications Towers and Structures

The maintenance of a modern and accessible telecommunications network is essential to the public welfare. Public safety agencies, such as emergency medical services, fire and police departments, rely on broadcast and communications facilities to provide essential services. High speed internet is considered a necessity for many residents and businesses. In addition, a modern and accessible telecommunications network provides communities with economic, social and cultural benefits.

At the same time, network infrastructure needs to be developed in an efficient, safe, and thoughtful manner. Possible impacts upon scenic and cultural resources, aesthetics, and public health and safety should all be considered during the planning process.

One subject of particular concern is the location and construction of communications towers. These structures and their supporting infrastructure (such as power lines, access corridors, and support buildings) can alter mountaintops and ridge lines in ways which negatively impact scenic resources vital to the Town's economic future and cultural richness. Aesthetic concerns will increase as the number of undeveloped mountaintops and ridge lines decreases. These structures must meet FCC safety standards as they relate to electromagnetic fields generated by broadcast and telecommunications facilities.

4.1.9 Other Facilities

The Town owns and maintains a number of properties as summarized in the Statement of Assets Table. The Town made a number of energy improvements to the wastewater treatment facility, town offices and highway garage in 2011, funded through a couple of Federal grants.

Table 4.2: Statement of Assets

Real Estate	Acres	Fair Market Value
Town Office, Land & Monuments	2.19	$344,000
Town Garage, Land & Pole Barn	0.5	$268,000
Cavendish Historical Bldg & Monument	0.5	$270,000
Duttonsville School Lot	4.0	$25,500
Sand Pit & Shed	3.0	$30,000
Wastewater Treatment Plant	5.0	$980,000
Collection Systems		$1,005,000
Water System		$3,550,750
Transfer Station & Sheds	5.0	$24,900
Proctorsville Village Green	2.23	$305,000
Power Plant Road	12.4	$32,000
Greven Field	5.0	$49,000
CTES School Bldg & Library	15.8	$3,280,000
Gravel Lot Rte 131	43.0	$75,000
Cemeteries		$298,000
Total Real Estate	**98.62**	**$10,537,150**

The Cavendish Fletcher Community Library is located in downtown Proctorsville, adjacent to the Cavendish Town Elementary School. It serves as both the town and school library. The library contains approximately 14,000 items including books, movies, audio books and over 30 periodical subscriptions. It has six computers and free Wi-Fi. It also offers several community programs including after school children's programming, a summer reading program, teen movie afternoons and movie nights for adults.

Residents rely on hospitals located in other towns, such as Springfield Hospital, Mt. Ascutney Hospital, Rutland Regional, and Dartmouth Hitchcock since there are no hospitals in Cavendish. Mental health services are available at the Black River Health Center.

The storm drainage system is addressed in the Transportation Chapter.

4.2 Summary of Future Needs

The existing municipal facilities and services are generally considered adequate to accommodate the anticipated projected conditions within the next 20 years as discussed in this Plan. However, the Town is planning to make a few strategic capital investments in addition to keeping up with routine maintenance of the existing municipal infrastructure. The following summarizes these priority planned investments:

Table 4.3: Municipal Facilities Needs

Recommendations to meet future needs	Category	Priority/ Schedule	Anticipated Cost	Method of Financing
Paint water storage tank	Water Dept	FY2020	$22,000	Water Capital Improvement Fund
Replace Cavendish water storage tank	Water Dept	FY2028	$350,000	Grant or Loan
~~Water telemetry~~	~~Water Dept~~	~~FY2017~~	$20,000	~~Water Capital Improvement Fund~~
Pump station improvements	Sewer Dept	Various	High	Various (see Capital Budget & Program)
Sewer manhole improvements	Sewer Dept	FY2021	$2,060	General Fund
Treatment facility headworks	Sewer Dept	Various	High	Various (see Capital Budget & Program)
Treatment facility aerated lagoons	Sewer Dept	Various	High	Various (see Capital Budget & Program)
Replace solid waste compactor	Transfer Station	FY2020 completed	$25,000	Capital Fund
Bridge #58 Depot Street (local match)	Hwy Dept	FY2019	$228,000	Bridge Capital Fund
Sidewalks - Cavendish Phase 1	Hwy Dept	FY2021	$110,000	Grant or Loan
Sidewalks - Cavendish Phase 2	Hwy Dept	FY2021	$165,000	Grant or Loan
Sidewalks - Cavendish Phase 3	Hwy Dept	FY2026	$170,000	Grant or Loan

4.3 Policies & Recommendations

Water and Sewer Policies

1. Maintain a pure, clean water supply, and a safe efficient sewage treatment system.

Water and Sewer Recommendations

1. Upgrade public water and sewer systems as needed to maintain efficiency, ensure environmental soundness, and provide quality product and service.
2. Research potential sites for new Town water supplies.
3. Delineate aquifer protection areas for the Town water supplies.

Solid Waste and Recycling Policies

1. Waste material, whether from agricultural, industrial, household, mining or other sources, shall be:
    * Limited at the source. It is better to prevent waste from developing within rather than transport to the transfer station and having to manage it.
    * Managed to prevent environmental damage, to avoid negative impacts on natural resources, and prevent nuisance to neighbors.
    * Maximize recycling opportunities.
    * Disposed of in an efficient, cost-effective, and environmentally sound manner.

Solid Waste and Recycling Recommendations

1. Educate residents about ways to reduce waste at the source through methods such as home composting, recycling, and environmentally-conscious buying habits.

Electric Utilities Policies

1. Ensure that residents are provided with a safe, effective and efficient electric utility service at reasonable rates.
2. Locate utility lines in areas designated for growth.
3. Locate new utility lines along existing corridors whenever possible; multipurpose use of utility corridors is encouraged.
4. Location or relocation of utility lines shall not have a negative impact upon aesthetic and natural resources.
6. Encourage the installation of underground utility lines for new construction.
7. Relocation of existing overhead lines to areas where no existing lines exist shall be installed underground.

Communications Towers and Structures Policies

1. Support the development of an integrated and modern telecommunications network while minimizing the economic, aesthetic and cultural costs of its development.
2. Locate and construct new towers, access corridors, and utility poles only where a

practicable alternative does not exist. Those wishing to provide new or expanded communications services shall utilize existing structures whenever possible. Owners or operators of existing tower space shall facilitate the sharing of space to the fullest extent possible. Those building new towers or support infrastructure shall not prohibit the sharing of those facilities by other users for reasons other than frequency interference or avoiding a demonstrated risk to public health. The use of existing structures, such as water towers and buildings, to support telecommunications broadcast equipment is encouraged wherever appropriate and where it will not have a negative impact on significant historic or aesthetic resources.

3. To conform with this Plan, those installing new transmission facilities shall demonstrate that public exposure to Radio Frequency (RF) radiation will not exceed applicable Federal Communications Commission (FCC) standards for human exposure. Telecommunication towers, including cell towers, must be reviewed for impacts to visual aesthetics of the area both from short and long view perspectives. Where possible, tower configurations which fit into the landscape, e.g. cell towers that look like trees, etc., shall be used.
4. Siting and design of communications towers and facilities (including any support and maintenance structures, necessary access corridors, and utility lines) shall minimize impacts on natural, scenic, and aesthetic resources. In the event that the use of a tower or other equipment is discontinued, the site shall be restored to its natural condition, or to the condition that existed prior to construction or installation.
5. To conform with this plan, the Secretary of the Vermont Agency of Administration must notify the legislative body and the planning commission before allowing the use of state property in the Town for a two-way, wireless communication facility under 30 V.S.A. § 227b. The following sites are inherently and especially sensitive, and the siting of new towers and support infrastructure in these areas is discouraged:
    a. Hawks Mountain
    b. The Alps region
    c. Ball Hill in Proctor Piper State Forest
    d. Twenty Mile Stream Road
6. Encourage the improvement of already established telecommunication infrastructure such as telephone and cable lines to enhance state-of-the-art tele-communication opportunities for residents. Examples of this include DSL transmission over existing telephone lines and high-speed Internet access over TV cable lines.
7. Encourage utilities to provide and expand high speed internet services to include town wide coverage.

Fire, Ambulance, and Police Services Policies

1. Provide the residents of Cavendish the best possible firefighting and emergency medical services by supporting improvements to these services that are prudent and necessary.
2. Support financially feasible measures that would increase the State police and Windsor County Sheriff patrols of our roads.
3. Enforce the speed limit on Route 131 within the Town.

Recreation Policies

1. Maintain and develop Town recreation areas to ensure continued use and enjoyment of these facilities by all residents.
2. Maintain and enhance important scenic and natural resource areas for long-term enjoyment by current and future generations.
3. Roads that are classified as Class IV town highways or trails shall remain in Town ownership and should remain available for recreational purposes.

Recreation Recommendations

1. Include Town recreation facilities in a long-term capital improvement plan.
2. Work with local sportsmen's organizations and the State Fish and Wildlife Department to assure a continuing program of stocking to maintain an adequate supply of game fish and proper stream management to provide desirable fish habitat.
3. Coordinate with conservation organizations regarding open space plans and river preservation plans to protect the Black River as a valuable scenic and recreational resource.

Chapter 5: Natural, Scenic and Historic Resources

5.1 Natural Resources

Natural resources as discussed in this chapter include water resources, flood land management, wildlife habitat, agricultural and forest lands, earth resources, air resources, scenic resources, visual access, scenic roads, and cultural and historic resources.

5.1.1 Water Resources

Surface water, in the form of brooks, rivers, ponds, and wetlands, is abundant in many parts of Cavendish. (See the Water Resources Map.) Surface waters are vital to the town, providing scenic beauty, recreational opportunities, and groundwater recharge, as well as fish and wildlife habitat. The Black River is the most prominent body of surface water in the town. The river runs parallel to Route 131 along much of its length, and prompted the road's designation as a State Scenic Highway, one of three in Vermont. The river is popular among kayakers and canoeists in early spring. A section of the river is designated as a trophy trout stream and stocked with trophy-sized fish during the fishing season. There are a number of fishing accesses including a newly designed access area along VT Route 131 that accommodates people with disabilities. The Cavendish Gorge, southeast of the village of Cavendish is an important scenic resource.

The Black River is an important resource for many recreational opportunities. Therefore, it is vitally important to maintain the water quality of the Black River that flows through Cavendish as it is impacted by both the Ludlow and the Cavendish Sewage Treatment Plants.

A Tactical Basin Plan (TBP) for the Black River watershed was developed by the Agency of Natural Resources in June 2018. The Basin 10 covers the Black and Otauquechee watersheds. The TBP is used to prioritize projects and target resources for restoration and protection. Municipal roadways that are in close proximity to surface waters are now subject to a Municipal Roads General Permit (MRGP). This involves maintaining an inventory and implementing a stormwater improvement plan for these road segments. These road segments are expected to be fully compliant with the standards in the General Permit by December 31, 2036. The Town will be financially responsible for bringing these roads into compliance. Funding assistance is available through a variety of programs, such as Better Roads, Municipal Roads Grants-In-Aid, Municipal Highway and Stormwater Mitigation, and the Transportation Alternative.

Other important surface waters in Cavendish include Knapp Brook and Knapp Ponds, Twenty-Mile Stream, and several brooks and streams that flow into the Black River. Cavendish hosts Class II wetland areas, including Heald Swamp. Class III wetlands and vernal pools are also important since they serve as feeding and breeding areas for a number of plant and animal species. They provide safe breeding grounds for insects and amphibians because they do not support fish populations.

The town has two public wells and a state-approved wellhead protection plan which is in compliance with state and federal standards. (See Utilities and Facilities Chapter). These public water sources supply the villages of Cavendish and Proctorsville. Water is supplied to residences in rural areas through private wells. The town wishes to maintain and improve the quality of its groundwater resources to insure the health and safety of those who depend on them. Groundwater is managed by the State as a public trust resource for the benefit of all Vermonters under 10 V.S.A. Chapter 48.

5.1.2 Flood Land Management

Flood and erosion hazard areas are shown on the Water Resources Map. Cavendish has adopted Flood Hazard Area Regulations, most recently amended in 2016. The Town initially enrolled in the National Flood Insurance Program (NFIP) on October 15, 1981. The town remains active in the NFIP, which makes property owners eligible for flood insurance. New development within special flood hazard areas is strongly discouraged. (See the Flood Resilience Chapter for more detail.)

5.1.3 Wildlife Habitat

The diversity of wildlife that is present in the town is an important part of its cultural heritage and is an indicator of its rural character. Residents and visitors enjoy hunting, fishing, and viewing wildlife from the many trails in town and within publicly owned forests and wildlife management areas. A significant amount of forested land in Cavendish is deer wintering area, according to the Vermont Department of Fish and Wildlife. According to the Vermont 1990-95 Deer Management Plan, deer wintering areas (deer yards) need to be protected from indiscriminate logging and residential and commercial development. Large wetlands, such as Heald Swamp, are critical feeding areas for large mammals such as moose and bear and provide breeding grounds for amphibians and fish.

The State's Natural Heritage Inventory indicates several spots that contain threatened or endangered plant or animal species. The State owns two Wildlife Management Areas (W.M.A.s) — the Knapp Brook W.M.A. on the north end of town and extending into Reading, and the Hawks Mountain W.M.A. on the southeastern corner of town. Proctor Piper State Forest also covers a large area on the south side of the Black River. This area is managed primarily for forestry uses; wildlife habitat and recreation are also important uses for this land. The Black River Wildlife Area, behind the firehouse in Cavendish Village, is an important habitat area that is currently on privately owned land. Because of the importance of this area for wildlife habitat, recreation and educational purposes, the Black River Wildlife Area is a priority for conservation.

The Wildlife Habitat Map depicts areas identified as critical wildlife habitat, including wildlife management areas, deer wintering areas, bear mast locations, wetlands, and known rare/threatened/endangered species habitat. The map also shows where large tracts of undeveloped land exist and wildlife crossings, which suggest locations in town that may serve as valuable wildlife habitat links that connect these large tracts of undeveloped land.

5.1.4 Agricultural and Forest Lands

As discussed in the Economic Development and Land Use Chapters, Cavendish wishes to encourage farming and forestry activities in the rural portions of town. Agriculture is an important part of the town's history, culture, and rural character. Maintaining farming in the rural parts of town is one way of maintaining rural character. There is also interest in the community in promoting a local foods-based economy. In order to do so, it is important to encourage the protection and reduce the fragmentation of viable prime agricultural soils for future agricultural uses. Prime agricultural soils are shown on the Soil Resources Map.

As discussed in Chapters 1 and 2, most of Cavendish's land area is forested. Of the 4,540 forested acres of State-owned land in town, about two-thirds of it is owned by the Department of Fish and Wildlife and the remaining lands are owned by the Department of Forests, Parks and Recreation. These state-owned lands are managed for multiple uses, including hiking,

snowmobiling, hunting, fishing, cross-country skiing. Proctor Piper State Forest is also managed for timber production through controlled harvests as part of a long-term management plan. Almost 36% of the total land area in town is enrolled in the State's Use Value Appraisal program, also known as the Current Use program. A number of these privately-owned parcels are managed for wood production. This program ensures that the land is managed according to a plan developed by a professional forester and provides an incentive for landowners to keep the land forested.

Forest lands provide a natural system of air purification and soil stabilization as well as areas for recreation and wildlife habitat. When managed carefully, these lands also provide an important local economic resource through the production of timber. Sustainable forestry activities are encouraged as part of the desired working landscape in the rural portions of Cavendish as discussed in Chapters 2 and 11. Fragmentation of forest lands can limit the viability of forestry activities and can also negatively impact wildlife habitat. Another important consideration is maintaining adequate connections between large tracts of forest lands that serve as important wildlife habitat travel corridors.

5.1.5 Earth Resources

Earth and mineral resources, such as sand, gravel, granite, and marble, are important commodities for road improvement, building construction, drainage, and export. Historically, Cavendish was a source of granite and verde antique marble. There are several small-scale mica schist quarries in Cavendish. Sand and gravel are also mined in some locations in town.

While these resources are important commodities and provide materials necessary for construction and public infrastructure needs, their extraction can potentially be damaging to aesthetics and natural resources. Of particular concern are the following issues: 1) degradation of surface and groundwater quality through site erosion and discharges of contaminants into exposed surface areas; 2) destruction or imperilment of important wildlife habitat; 3) deterioration of scenic beauty; 4) localized air and noise pollution; 5) property devaluation; 6) structural deterioration of bridges and roads; 7) traffic and pedestrian hazards caused by increased truck traffic on both minor and major local roads; and 8) impacts on the historic and rural residential character of the town.

As discussed in the Goals and Objectives section, the lack of objectionable noise and preservation of our quiet, rural character is of critical importance. Further, Cavendish has developed a tourist economy and large-scale extraction of earth resources is not compatible or consistent with this new economic direction of the town. Earth extraction operations must be distant and isolated from residential properties in order not to have an adverse impact upon their character or interfere with residents' quiet enjoyment of their homes and properties.

Appropriately-scaled operations, which do not have undo negative impacts on environmental resources, special community resources, and quality of life enjoyed by our townspeople, shall be supported. They must not negatively impact the quality of our natural resources and the quality of life enjoyed by our residents and visitors. This includes protecting residents from activities from the operations which can cause adverse health problems and annoyance. These include diesel fuel exhaust and dust pollution.

5.1.6 Air Resources

Cavendish currently does not have an air quality problem according to national standards. As a result, the municipality's good air quality constitutes an environmental resource that has aesthetic as well as human health benefits. Elements that could negatively affect air quality include: smell, light, particulate matter (from dust, smoke or fumes), radiation, chemical vapors, motor vehicle exhaust and power plant emissions. Outdoor lighting can also negatively impact safety and the dark night sky.

5.2 Scenic Resources

Preservation of scenic resources is of paramount importance to the citizens of Cavendish. Scenic resources are part of our rural character, our history and the reason many people choose to live and visit here. The scenic resources are a combination of natural, cultural, and historic elements in the town. Significant scenic resources have been identified in the Town of Cavendish that require preservation. A threat to our scenic rural countryside is haphazard subdivision. Poor planning, rapid changes, and haphazard subdivision can drastically affect the rural atmosphere, open space, and scenic values.

5.2.1 Visual Access

The Visual Access Map originally prepared by The Cavendish Partnership in March 1986 shows the location of important visual access and scenic viewpoints in the Town of Cavendish. This map was recreated by the Planning Commission with assistance from the Southern Windsor County Regional Planning Commission and updated by the Planning Commission 2019 (see the Visual Access Map). It shall be referred to in review of any Act 250 applications.

5.2.2 Scenic Roads

A significant and essential scenic resource that runs through the town is the Black River Corridor. The Black River Corridor travels east from the intersection of VT Route 103 and VT Route 131to Weathersfield along the Black River and includes Scenic Route 131 which was designated as a State Scenic Highway in 1998. The *Route 131 Scenic Highway Management Plan* provides recommendations for maintenance and construction, and gives the Town a greater role in all work that is done along the route. It is the Town's intention to maintain the scenic values along VT Route 131 while maintaining high standards of safety. Two other important scenic corridors are Davis Road/Twenty Mile Stream corridor, and Twenty Mile Stream Road/Twenty Mile Stream corridor.

Cavendish also hosts a small spur of the Scenic Route 100 Byway, a designated Vermont Byway which runs on VT Route 100 from Readsboro to Granville, and includes spurs on VT Route 103 in Ludlow and Cavendish, and on VT Route 100A in Plymouth. Byways in Vermont do not have particular regulatory impacts, but instead focus on marketing the assets along the Byway to both locals and visitors. The *Scenic Route 100 Byway Corridor Management Plan* outlines a variety of resources within each town.

Another valuable town scenic resource is the outlying rural forests and fields and the network of country and local low volume roads that connect our rural neighborhoods. Several town roads have been identified as having important scenic and rural qualities as well. Qualities include canopies over the roadway, scenic views, stonewalls, open fields, and lack of utility poles and streetlights.

Local scenic resources include but are not limited to those shown in Table 5.1.

Table 5.1: Local Scenic Resources

Resources	Location	Scenic Qualities
VT Route 131 Scenic Highway	The entire length of VT Route 131 in the Town of Cavendish	Follows the Black River. Unobstructed view of the river and lack of development along the river valley. No utility poles along the eastern portion of roadway.
Black River Corridor (East End)	From the Weathersfield Town Line to Whitesville Road	Characterized by spectacular views of the Black River, ridgelines and hillsides, and, but for a few exceptions, evidence of development is absent.
Black River Corridor (West End)	From Whitesville Road to VT Route 103	Characterized by the two villages, and the open, undeveloped areas on either sides of the two villages.
Twenty Mile Stream Road/Twenty Mile Stream Corridor	From Heald Road to the Reading Town Line	Open, pastoral views contained by ridges on either side. Scenic agricultural land along most of road.
Davis Road	From Heald Road to Center Road.	Closed in area with ravines on either side with very little development, flat rocks, swimming holes, remote and quiet area. Very dense canopy. Davis Road follows closely to the banks of Twenty-Mile Stream. Nice visual association with stream. Open fields
South Reading Road	Top of Derby Hill	Outstanding combination of a well maintained row of maples and long-range views to the South. Maples are 10' or so off edge of road. Woods uphill have been selectively pruned, exposing a stonewall.
Felchville Gulf Road	From Senna Road to Town line	Dense canopy, closely follows stream, nice row of rock outcroppings.
Atkinson Road	1/2 mile from Center Road	Overhead canopy of maples.
East Road	Between Chambers and Chubb Hill	Stone walls, nice long-range view to Hawks Mountain, large maples.
Old County Road	South of Chaos Turnpike	Nice overhead canopy.
Brook Road	Entire road up to East Road	Follows brook, overhead canopy, views of brook.
Greenbush and Stevens Roads	From Tarbell Hill Road to Town line	Follows brook, overhead canopy, views of Mount Ascutney.
Cavendish Gulf Road	Entire road	Tree canopies, rural qualities, historic railroad line, stonewalls along places in road. One of the first roads in town.
Areas Shown on Visual Access Map	All	Prepared originally by the Cavendish Partnership, March 1986

5.3 Cultural and Historic Resources

Evidence of Cavendish's past may be seen throughout the town in the historic farms and residences and in the villages of Cavendish and Proctorsville. Both villages are designated as State Historic Districts with older buildings of architectural and historic interest. Several structures outside of the Villages are inventoried on the State Register of Historic Places. In addition, the following are listed on the National Register of Historic Places: the Atherton

Farmstead, Brook Farm, the Cavendish Universalist Church, the Glimmerstone Mansion, the Aaron Jr. and Susan Parker Farm (Windy Hill), the Pollard Block, and the Spaulding Bridge.

The town recognizes that its historic structures and places are an invaluable, nonrenewable resource, and requires the preservation and appropriate use of these structures through the Act 250 process.

According to a survey conducted by the Southern Windsor County Regional Planning Commission, the most important historic structures in Cavendish are the Universalist Church, the Academy Building, the Historic Society Building, the Old Jenny House, the recently relocated and renovated Freeman House, Bates Mansion, The Castle, the Glimmerstone, the Joshua Parker Farm, the Henry Wiley house, the Cecilia Davis house, the James Down house, and the Crown Point Road.

In addition to its historic structures, the town has several cultural resources that are valuable to the community. These include the Cavendish Town Elementary School, the Cavendish Fletcher Memorial Library, the Proctorsville Green Summer Concert Series, the Cavendish Historical Society Museum in the Old Town Hall with exhibits in the Universalist Church, the Greven Field Recreation Area, and the war memorials in Proctorsville and Cavendish Villages.

5.4 Policies and Recommendations

Water Resources Policies

1. Development shall follow the guidelines and requirement of the Vermont Clean Waters Act.
2. Development that creates negative impacts shall be prohibited in headwaters of watersheds or areas supplying recharge water to aquifers.
2. Development shall be prohibited in areas where soil conditions and topography will cause pollution of ground or surface waters.
3. Development shall be prohibited on steep slopes where erosion is likely to occur.
4. The Black River is valued as both a scenic and recreational resource; in order to protect that resource, development is prohibited along the Black River corridor when such values will be negatively impacted.
5. Naturally vegetated buffer strips of at least 50-100 feet shall be left next to all rivers, lakes, and ponds, and at least 50 feet next to streams and wetlands, so as to filter pollution, prevent erosion, and protect fisheries and wildlife habitat.
6. Development projects shall provide continued public access for recreational purposes to the Black River.
7. Development shall not degrade the water quality of the Black River and its tributaries.
8. The town shall advocate for the protection of existing swimming and fishing holes along the river.
9. Sewage treatment plans shall maximize opportunities to treat waste effectively and minimize the length of the C zone (mixing zone) in the Town of Cavendish in order to maximize swimming and recreational opportunities.

10. The Select Board and the Planning Commission of the Town of Cavendish will actively participate, as appropriate, in reviews of the Ludlow Sewage Treatment System to restore and improve the quality of water in the Black River in Cavendish to maximize opportunities for swimming, boating, fishing and other water activities.

Water Resources Recommendations

1. Consider means and ways to develop an overlay district for aquifer protection areas.
2. Identify potential, new public access areas along the Black River and encourage design and construction of such areas.

Wildlife Habitat Policies

1. Protect and maintain wildlife habitat, particularly areas designated as deer wintering areas, seasonal feeding areas, and locally identified travel corridors used by black bear, and Natural Heritage sites. Ensure that development does not diminish the quantity and quality of these areas.
2. The diversity of indigenous plant and animal species shall be protected for their continued existence and proliferation.

Wildlife Habitat Recommendations

1. Work with local sportsman organizations and the State Fish and Wildlife Department to develop a plan for stream and river habitat management and to assure a continued program of game fish stocking.

Agricultural and Forest Lands Policies

1. Give primary agricultural soils the highest priority for farming or to such uses which will maintain the potential for agricultural use.
2. Consider forest and agricultural lands for their forest and agricultural productivity prior to any non-forest or agricultural uses.
3. Utilize cluster development to effectively preserve the productivity of prime agricultural and forest soils.

Agricultural and Forest Lands Recommendations

1. Encourage local farmers to focus their efforts on the development of sustainable methods of farming that are productive and profitable. Specifically, the town encourages farmers to pursue the following goals where feasible and practical:
   - Use Acceptable Management Practices (AMPs), farming methods that prevent water pollution, prevent soil erosion and degradation, and protect public health and safety.
   - Stabilize and increase farm incomes through crop and enterprise diversification.
2. Encourage private landowners to use Acceptable Management Practices for harvesting timber to protect the aesthetic and resource protection values of forest land.

Earth Resources Policies

1. The extraction of resources must not adversely impact or interfere with the appropriate

uses of other community resources, such as historic sites, scenic roads and areas, recreation areas, and tracts of undeveloped land that contain wildlife habitat and significant wetlands.

2. The extraction of earth resources must not result in a nuisance to neighboring property owners through noise, dust or other factors, nor cause significant disruption of the quiet enjoyment of affected homes and property nor create a burden on public services.
3. The extraction of earth resources must not result in adverse impacts to affected property owners through the excessive generation of noise, air pollution emissions, fumes, dust, visual impact, and truck traffic.
4. Earth extraction areas shall be fully and effectively reclaimed and prepared for an alternative use or development.
5. Earth extraction operations and associated vehicular traffic must not compromise pedestrian or driving safety by increased volume of traffic and large trucks traveling on minor or major roads. Earth extraction vehicular traffic must not be routed through village areas when other reasonable alternative routes can be used.
6. In the opinion of the Select Board and Planning Commission, whenever feasible and practical, applications for earth extraction/removal activities shall include a site visit and a live noise demonstration at the Act 250 hearing and any reconsideration or appeal hearings. The live noise demonstration shall include the operation of all equipment simultaneously that would be used in earth extraction/removal processing and trucking. The hearing shall also include a blasting demonstration if requested by the Cavendish Planning Commission. The demonstrations shall include sound and vibration monitoring at affected properties.
7. If, in the opinion of the Cavendish Select Board and Planning Commission, a noise demonstration is not feasible then the application for earth extraction/removal, processing and related trucking shall include a noise study using CADNA A noise modeling. The modeling shall not include any noise attenuation due to foliage and the ground absorption factor shall be at a maximum of 0.5.

Scenic Resources Policies

1. Proposed changes or development in these areas shall only be permitted if they do not detract from scenic resources.
2. The Route 131 Inventory and Management Plan (current update) should be referred to for specific recommendations regarding maintenance and resources along this road.
3. Maintain overhead canopies of trees on, and stonewalls along, scenic roads wherever possible.
4. Historic stone walls shall not be destroyed or removed.
5. Ridgelines, hillsides, and wetlands are all important elements of the scenic views of Cavendish, as well as other bodies of water such as lakes, streams, and ponds and all require protection.
6. Consider scenic corridors as a valuable town resource which shall be protected.

7. Land development such as subdivision shall be done in a manner to maintain or enhance the scenic resources described above.
8. Subdivision design shall preserve open space, incorporate clustering, preserve important features such as stonewalls, ridgelines, hillsides, and wetlands, avoid developing on steep slopes, and consider off-site views.

Scenic Resources Recommendations

1. The Town should develop a policy regarding the maintenance of Town roads with reasonable impacts on road aesthetics including tree canopies.

Cultural and Historic Resources Policies

1. Develop land adjacent to, land with views to, or land including areas of cultural or historic value in a manner that will not reduce or destroy the value of the resource. Adverse impacts include noise, lighting, incompatible visual impacts, and traffic that affect the use and enjoyment of these important resources.
2. Re-use of historically significant buildings and sites while maintaining and preserving their architectural and historic character is required unless the building is determined to be structurally unsound.
3. Necessary renovations of significant historic buildings and sites shall reflect the historic character of the resource and the historic district it is in, if so situated.
4. Follow the standards of the Secretary of Interiors for renovation of historic structures. Renovations of buildings eligible for but not included in the state or national register of historic sites shall follow the standards of the Secretary of Interiors for renovation of historic structures.

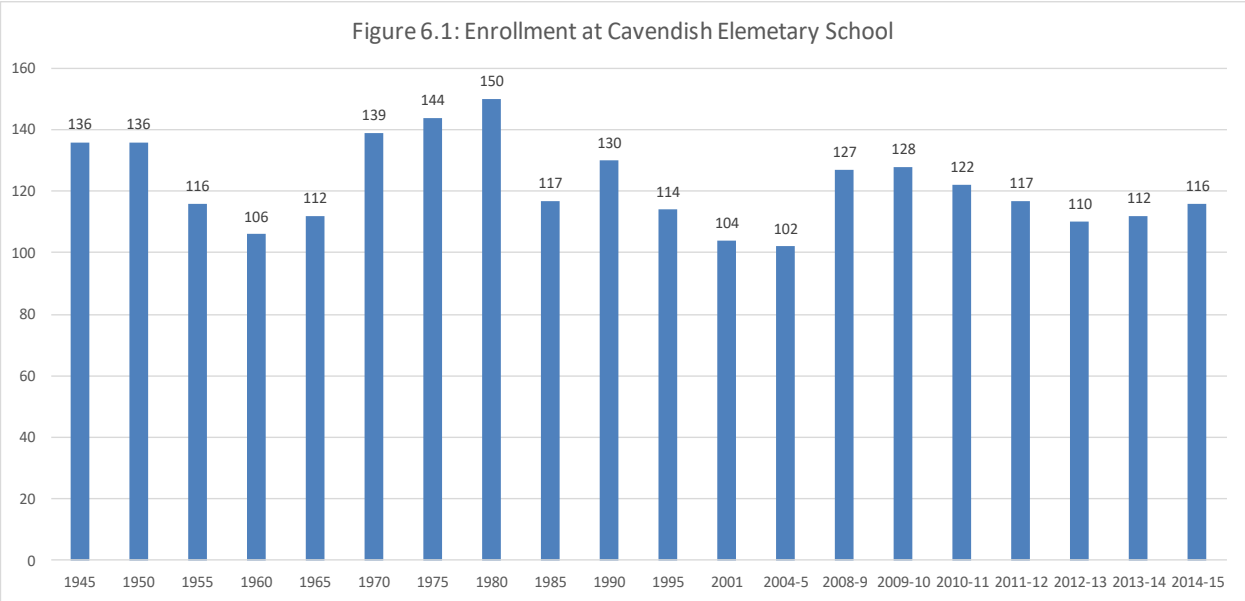
Chapter 6: Education

6.1 Educational Facilities

A strong school system has a positive influence on the community. It is important that the town keep, maintain, and enhance the elementary school as an integral part of the town. The school provides a safe educational environment for students as well as a focal point for community activities and events.

In July 2018, the Cavendish Elementary School was conveyed to the Two Rivers Supervisory Union, for the sum of one dollar, all school real and personal property. The Supervisory Union also assumed all assets and liabilities including capital debt.

The Cavendish Town Elementary School (CTES) located in Proctorsville, was built in 1959 and has the capacity to accommodate 140 students. CTES serves grades K-6. The total number of students has fluctuated over the years. (Figure 6.1). Grades 7-12 attend Green Mountain Union High School in Chester.



The CTES provides high quality educational opportunities for its children as evidenced by consistent scoring on all state assessment programs, ~~and~~ meeting or exceeding the standard for language arts, science, math, and science.

The CTES was completely renovated during the summer and fall of 2004. The project included a new design of the old building, and an addition. The facility has a building-wide wireless internet system; lighting inside and outside controlled by motion and light sensors; individual room controlled heat and air exchange monitored by a web-based computer system; the community/school library is airconditioned.

The school has always been available as a community center, and the citizens of the town are encouraged to take advantage of this resource.

The school has appropriate ADA compliant classrooms and office space for all staff and teachers. There is space in the building for private counseling with students and families, appropriate rooms for testing, and a conference room for meetings. The building has a large and well-equipped Arts Center where art classes, music classes, instrumental lessons and band are held. The Arts Center is used for after school activities including an art club, chorus, band and Respect Club. In the evening, the Center is often used for professional development activities for the staff of the Supervisory Union and school board meetings.

According to 2015 enrollment figures and estimated school capacity, the CTES has the ability to accommodate 24 additional students. Large or rapid increases in the number of students may necessitate additional teachers or larger class sizes. Decreases in the number of students may result in fewer teachers.

Vocational and technical education programs are available to students of the Green Mountain Union High School at Springfield High School. Adult and Continuing Education classes and programs are also offered though the following institutions: River Valley Tech Center and the Howard Dean Education Center whose partners are Vermont Tech (formerly Vermont Technical College), Johnson State College, Community College of Vermont, River Valley Tech Center, University of Vermont, Three River Valley regional business/education partnership, and Vermont State Colleges.

Educational programs that are used by many town residents include Stepping Stones Pre-School and Fletcher Farm School for Arts and Crafts, a non-profit crafts studio that offers art classes on the property owned by the Fletcher Foundation.

Early childhood education includes Stepping Stones in Cavendish as well as other private schools in surrounding towns.

6.2 Day Care Facilities

There are two licensed child care providers in Cavendish: Stepping Stones Preschool and Cavendish After School Program[4]. The town gives financial support to the Stepping Stones preschool and supports its programming. In addition, the Cavendish Town Elementary School has established a pre-school program at the school. There are also two registered home-based childcare facilities in Cavendish[4]. In addition to these facilities, residents rely on informal childcare arrangements within the town or regional resources outside of town that are either licensed or registered. The childcare resource and referral agency for Cavendish is the Springfield Area Parent Child Center, which is located in North Springfield.

6.3 Policies and Recommendations

Education Policies

1. The Town shall continue to support the GMUSD that provides the residents of Cavendish with the best possible educational facilities and curriculum.
2. Where necessary, development shall be phased to allow the town to accommodate growth without creating overcapacity or diminishing the quality of education.
3. If development imposes an undue burden on the schools, such as exceeding capacity or

[4] According to information on the Vermont Department for Children and Families website

detracting from the quality of education, the developer will be required to defray the associated costs.

Education Recommendations:

1. The Unified School Board, with input from the supervisory union, and other town officials, shall develop a long-range educational plan that identifies current and future needs of the Cavendish educational system.

Chapter 7: Energy

7.1 Background

Cavendish, like other Vermont municipalities, produces no fossil fuels and imports almost all of its energy. There are three exceptions: (1) the hydropower plant on the Black River, owned by Green Mountain Power which sends all of its power out of Cavendish; (2) the solar array next to the sewage treatment plant, owned by the Town of Cavendish which powers municipal buildings; and (3) the wood that grows abundantly around us. Other, smaller sources of residential wind and solar power exist, but are minor in comparison to the town's overall energy usage.

Economic forces at the international, national and state levels drive energy supplies and prices. However, the manner in which Cavendish plans for its future growth will impact local energy needs and usage. As an example, the siting and design of buildings and the selection of energy systems along with patterns of land development, will influence town growth and economic progress in an era of constantly increasing energy costs.

7.2 Energy Demands

According to the Vermont Energy Atlas, in 2014 the average yearly residential consumption of electricity in Cavendish was approximately 6,576 Kwh. This places Cavendish in the middle of those communities that comprise the southern Windsor County region. Municipal electric cost has dropped significantly with the municipal solar array on line, but usage can always improve.

Cavendish Municipal Electric Usage

	2012		2013	
	Kwh	Cost	Kwh	Cost
School	137,560	$20,379	125,440	$19,843
Water Dept.	111,634	$14,230	135,984	$17,350
Sewer Dept.	78,210	$23,983	54,540	$23,362
Town Office	10,091	$1,999	8,761	$1,836
Highway Garage	7,525	$1,261	8,421	$1,483
Transfer Station	3,268	$1,093	4,564	$1,318
Totals	348,288	$62,945	337,710	$65,192

7.3 Current Energy Sources

7.3.1 Fossil Fuels

Cavendish, like most other towns in Vermont, depends primarily on fossil fuels for heating and transportation. Since Cavendish produces no fossil based fuel, the town is dependent on imports and the pricing structure dictated by markets well outside our borders. According to the U. S. Census Department's American Community Survey, for the period 2011 to 2013 the major home heating fuels used in Windsor County Vermont homes were as follows:

Total Homes:	24,785
Utility gas	602
Bottled, tank, or LP gas	5,203
Electricity	1,070
Fuel oil, kerosene, etc.	12,671
Coal or coke	134
Wood	4,525
Solar energy	87
Other fuel	454
No fuel used	39

By far, most homes in Windsor County are heated with fossil fuels.

7.3.2 Renewable Energy

As of 2017, Cavendish lead Windsor County in its use of renewable energy due to the solar array located on town owned land that powers the town office, the transfer station, the water treatment plant and the wastewater treatment facility. Additionally, several residences in town rely on solar power to supplement or replace the use of power from the grid, including one homeowner who shares power with the town (enough to power the town garage). However, Cavendish residents and businesses individually mainly reflect the Vermont average, using mostly fossil fuels for heating and transportation.

7.4 Renewable Energy Resources

The 2012 Vermont Comprehensive Energy Plan recommends that Vermont obtain 90% of total energy from renewable sources by 2050. "Renewable" energy refers to the production of electricity and fuels from sources that are naturally and continually replenished, such as wind, solar, geothermal, hydropower, and biomass (wood, crops, manure, etc.).

Renewable energy generation systems are regulated in Vermont through the Public Service Board. Cavendish does not have zoning, so no local land use permits are needed for energy projects.

Several types of renewable energy are found in Vermont and in Cavendish.

7.4.1 Solar Energy

The sun has the potential to provide clean, reliable, and safe energy, even in Vermont's climate.

Electricity Generation – Cavendish has the potential for solar power production as evidenced by the 148 Kw AC solar array that went on-line in December 2014 at Power Plant Road in Cavendish. That array provides electricity through net metering for most municipal buildings and uses. While the potential for such large-scale production is limited, almost every homeowner has the potential to produce some if not all of their electricity with photovoltaic panels. Several Cavendish residences now do produce electricity in this way.

Passive Heating and Lighting – Good building and site design are essential to taking advantage of the sun's energy through passive methods. Cavendish encourages use of low cost, passive solar in this fashion by encouraging appropriate building placement, design and landscaping.

Water Heating – Solar water heating is the most common form of residential scale solar use in Vermont. Solar hot water 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 the water.

Projects shall be sited and constructed in ways that minimize visual impacts. Photovoltaic panels situated on rooftops are encouraged in Cavendish.

7.4.2 Wind Energy

Electric generation from wind power is an intermittent resource and its generation fluctuates in response to weather conditions. According to the Wind Resource Map of Windsor County found in the Vermont Energy Atlas, Cavendish is in the very low end of the range, mostly class 1. Although there are several potential wind sites in town, that are suitable for small scale, residential generation.

7.4.3 Biomass Energy

Biomass refers to biologically-based feedstock such as algae, food waste, grasses, methane, oilseed crops, and wood that can be converted into energy sources such as biodiesel, ethanol, and wood chips / pellets, which can run vehicles, heat buildings, or generate electricity. Biomass has provided concentrated solar energy for heating, lighting, and cooking, as well as concentrated sustenance in the form of food crops and animals for all of human history. Biomass currently provides the largest slice of renewable energy generation in the United States. (Source: www.eia.gov)

Wood is a relatively low-cost source of thermal energy in Vermont. Although the price per unit is increasing at about the rate of inflation, the cost of wood is projected to remain significantly less expensive than other heating fuels into the future, and pricing has been more stable through times of fossil fuel volatility. Wood chips used by schools and institutions have been even more stable, increasing in price at less than the rate of inflation. As efficiencies for wood-fired furnaces, boilers, and stoves increase, the annual fuel costs for the user are expected to decrease. (Source: *2011 VT Comprehensive Energy Plan*, pp. 193-4)

Cavendish encourages the use of wood as a biomass source of energy by favoring the growth and sustainable harvest of cordwood.

7.4.4 Ground and Air Heat Extraction

Heat pumps use refrigeration cycles (similar to those used in air conditioners or refrigerators) to move heat from outside a building to the inside. A ground source heat pump (GSHP) extracts heat from sub-surface soil and rock through drilled wells; an air source heat pump extracts heat from the ambient air outside. In both cases, the ultimate source of the heat is the warmth of the sun. Although there has been significant improvement in the cold-weather performance of air source heat pumps, GSHP's may be more appropriate for Vermont. All heat pumps can be reversed and used for air conditioning in the summer.

7.4.5 Hydropower

Prior to the 1920s, Vermont relied on hydro resources almost exclusively for its electricity needs. Many of the projects were small and served the modest local demand for energy. While the state is now less reliant on small hydro sources, in-state hydroelectric power still makes a significant contribution to Vermont's electric load. Cavendish has a unique energy resource in the Black River.

The potential for hydropower is similar to that for wind power or for solar power. The small-scale producer, i.e. homeowners or businesses that have sufficient water flow to support a micro-hydro system, should be encouraged to develop environmentally sustainable systems.

7.5 Permitting Considerations

Distributed power generation facilities, such as hydropower dams, fossil fuel plants, and wind or solar systems owned by utilities are subject to review and approval by the Vermont Public Service Board (30 VSA §248). A section 248 review addresses environmental, economic and social impacts associated with the particular project. In making its determination, the Board must give due consideration to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, this Town Plan addresses these land uses and provides guidance to town officials, regulators and utilities.

7.6 Residential Energy Efficiency

There are a number of ways that Cavendish can lower its local energy demand. Such action is the equivalent of developing a local energy resource. Two basic ways to decrease energy demand, both in the home and in local businesses are 1) be aware of energy usage and ways to reduce usage. Examples include:

- Turn off the lights when leaving a room.
- Use a programmable thermostat, set it lower in winter, higher in summer.
- Dry clothes on a clothesline.
- Use cold water to wash clothes.
- Plan errands and set a driving route to reduce driving time.

And 2) implement energy efficient measures. Examples include:

- Air seal and insulate all surfaces of the building envelope.
- Close off unused rooms and reduce the heated area of the building
- Insulate with high R-Value material.
- Install energy efficient appliances.

- Use high efficiency lighting such as CFL or LED bulbs.
- Use gas or solar hot water heaters
- For new buildings – site it to use wind blocks and natural cooling patterns from the landscape and position it to maximize southern exposure to capture passive solar energy.

New residential development in Vermont is required to comply with Vermont Residential Building Energy Standards (RBES). 30 VSA § 51. Commercial development is subject to similar code regulations. RBES applies to multiple family dwellings and modular homes as well, (not including mobile homes) and to additions, alterations and some renovations. In order to comply with the RBES, a built home must meet all of the basic and performance requirements of one of several possible compliance methods. If the construction meets the requirements of the RBES the builder must complete a certificate and file it with the town Clerk and post a copy in the home. 30 VSA § 51(f). If the builder does not comply, a homeowner may seek damages in court. 30 VSA § 51(g).

See, http://publicservice.vermont.gov/topics/energy_efficiency/rbes

7.7 Municipal Role in Energy Efficiency

The Cavendish Energy Committee (CEC) was established in 2009 when a committee within the local non-profit Cavendish Community and Conservation Association assisted the Town Energy Coordinator to successfully apply for a $50,000 CEDF grant make the town offices more energy efficient. The CEC continued to work on local projects including converting streetlights to LED bulbs, presenting workshops on weatherization, heat pumps and solar technologies, creating a Property Assessed Clean Energy (PACE) District, and investigating the possibilities of solar power for municipal use. Ultimately the CEC advised the Cavendish Select Board on installing and operating a 148kW AC solar array to power most of the municipal buildings – that array went on line in 2014. The CEC also formulates and administers energy and energy conservation educational programs, reaches out to those who are interested in energy and energy conservation issues, forms alliances and partnerships to benefit Cavendish, and identifies and investigates activities that might affect Cavendish energy policies or issues.

Cavendish is a PACE District, which allows residents to take advantage of low cost financing from the state to implement renewable energy and energy efficiency projects. This municipal role can influence a wide variety of energy related activities within Cavendish. PACE borrowers must use the money for certain projects such as weatherization, upgrades to more efficient heating, and installation of solar and wind related energy. The amount borrowed is typically repaid over twenty years as an assessment on the property and, if the property is sold, the assessment can stay with the building.

Cavendish can play a role in influencing energy use in addition to directly reducing municipal facility usage. The Select Board can implement a policy whereby the town will consider energy efficiency in purchasing or planning for other town investments, and thus lead the way towards more efficiency overall. For example, the town should only purchase Energy Star-rated equipment such as computer products and peripherals, appliances, buildings and other products. Energy Star rated products generally use 20-30% less energy than required by federal standards.

7.8 Energy and Land Use Policy

Communities may not impose land use regulations that prohibit or have the effect of prohibiting the installation of solar collectors or other renewable energy devices. (24 V.S.A. Chapter 117) Cavendish can encourage energy efficiency and conservation through the use of high-density development in villages and existing built-up areas. More compact settlement patterns will lead to less travel and thus to less energy use. At the same time Cavendish must be flexible enough to recognize and allow for the emergence of technological advancements that encourage decreased energy consumption and the increased use of renewable energy.

7.9 Energy and Transportation Policy

It is important that communities recognize the clear connection between land use patterns, transportation and energy use. Cavendish is a rural community with two central villages. Most communities encourage the development of residences in rural areas, but this rural development requires most of the population to drive in order to reach schools, work and services. It is in the interest of Cavendish to encourage the location of proposed new developments adjacent to existing roads. High density developments must be located within or adjacent to existing village centers or within designated growth areas. Commercial development that requires trucking and freight handling must be located on roads that can effectively handle the size of the vehicle needed.

7.10 Policies and Recommendations

Policies

1. Encourage residents and businesses to wisely use and conserve energy, to implement energy reduction measures, and to take advantage of available State and Federal energy conservation programs.

2. Promote cordwood production by landowners including those in the Use Value Appraisal (Current Use) Program and encourage improved management practices that will increase forest use as a sustainable energy resource.

3. Encourage small scale, non-commercial, locally sustainable energy sources such as, but not limited to biomass, solar, wind, geothermal and hydropower as long as they do not result in undue adverse effects on the environment or the character of the area in which they are located.

4. Encourage architects and homebuilders to integrate energy efficiency in the design and construction of residential and business structures. This includes but is not limited to the use of high value insulation, solar photovoltaic power, solar hot water, geothermal and cold climate heat pumps, LED lighting, wind power, hydropower and other alternative energy sources, and energy saving technologies to reduce the use of greenhouse gas producing systems.

Recommendations

1. Apply for State and Federal grants to implement energy saving measures and the use of

alternative energy sources as recommended in the audit conducted on the wastewater treatment facility. Seek other energy improvements to benefit other municipal structures and equipment.

2. Provide continuing public education regarding energy issues by holding regular workshops open to the public on topics such as recycling, alternative energy generation, and energy conservation including weatherization.

3. Promote the State of Vermont Use Value Appraisal Program through public education to stimulate production of hardwoods for fuel and to improve forest management.

4. Post links to current, reliable information regarding energy related issues as a town resource on the Cavendish Town web site.

Chapter 8: Housing

Having safe and affordable homes for all residents is an important goal under 24 V.S.A. Chapter 117. However, the prevailing housing costs are too high for many local families. A survey conducted for the East Central Vermont planning process found that most respondents (74%) believe "ensuring housing is available and affordable" is the best tool for the region to use to attract young people and families[5].

According to 24 V.S.A. §4303:

(1) "**Affordable housing**" means either of the following:
(A) Housing that is owned by its inhabitants whose gross annual household income does not exceed 80 percent of the county median income, or 80 percent of the standard metropolitan statistical area income if the municipality is located in such an area, as defined by the United States Department of Housing and Urban Development, and the total annual cost of the housing, including principal, interest, taxes, insurance, and condominium association fees is not more than 30 percent of the household's gross annual income.
(B) Housing that is rented by its inhabitants whose gross annual household income does not exceed 80 percent of the county median income, or 80 percent of the standard metropolitan statistical area income if the municipality is located in such an area, as defined by the United States Department of Housing and Urban Development, and the total annual cost of the housing, including rent, utilities, and condominium association fees, is not more than 30 percent of the household's gross annual income.

(2) "**Affordable housing development**" means a housing development of which at least 20 percent of the units or a minimum of five units, whichever is greater, are affordable housing units. Affordable units shall be subject to covenants or restrictions that preserve their affordability for a minimum of 15 years or longer as provided in municipal bylaws.

8.1 Housing Inventory and Analysis

The largest concentration of housing in Cavendish lies within the two village centers. The remaining housing is dispersed throughout the town in typical rural settlement patterns.

[5] Housing Needs in East Central Vermont (Vermont Housing Finance Agency, 2013)

A summary of existing housing units in Cavendish is shown in Table 10.1, based on data from the U.S. Census Bureau. Of the 965 total housing units in Cavendish (U.S. Census Bureau, 2010), about 62% are occupied year-round, while more than 31% are seasonal, and 4% are vacant.

Table 10.1: Number of Housing Units in Cavendish

	1980	1990	2000	2010
Total Units	649	785	860	965
Owner-Occupied Units	375	399	498	491
Renter-Occupied Units	117	112	119	107
Seasonal Units	113	223	191	303
Vacant-For Rent	8	7	16	21
Vacant-For Sale Only	5	12	10	19

Source: U.S. Census Bureau - Census of Population & Housing, 2010

Table 10.1 shows trends in population and housing units, based on U.S. Census Bureau decennial data. Between 2000 and 2010, population declined by 7% while occupied housing units decreased by 3%. The number of total housing units increased by 12% during that same 10-year period.

Table 10.2 shows a breakdown of housing units by type, as compared to Windsor County, and the State of Vermont. A majority of homes in Cavendish are single-family residential, but about 13% are multi-unit residences in town, many of which are condominiums. According to the Grand List, about 10% of the local housing stock are mobile homes[6].

Table 10.2: Housing by units in structure, 2007-2010

	Cavendish	Windsor Co.	Vermont
All Housing Units	937	34,047	321,284
... in buildings with 1 unit	74.90%	69.40%	70.00%
... in buildings with 2 units	5.80%	5.50%	6.40%
... in buildings with 3 or more units	13.20%	18.10%	16.60%
... that are mobile homes	6.10%	6.90%	7.00%
... that are boats, RVs, vans or other	0.00%	0.00%	0.00%

Source: U.S. Census Bureau, American Community Survey 2007-2011

There is one subsidized housing facility in Cavendish, the Proctorsville Green Housing complex, which offers 9 one-bedroom units and 6 two-bedroom units.

[6] Note that the Grand List appears to be a more accurate source than the American Community Survey for the number of mobile homes. However, the opposite appears to be true for reporting of condominiums and other multi-family residences.

8.2 Addressing Low and Moderate-Income Housing Needs

Housing needs for Cavendish and the surrounding area are detailed in both the Regional Plan and the Housing Needs in East Central Vermont[6]. This section is intended to evaluate key data and findings in order to supplement those documents and highlight housing needs for Cavendish.

Table 10.3 compares data that helps to identify the ability of residents to afford housing based on local conditions. Housing is generally considered affordable if it costs no more than 30% of the household's gross annual income. Based upon data from the American Community Survey, nearly one-third of owner-occupied units and almost half of renter-occupied units in Cavendish are at or above this 30% target. (Local jobs, income levels, and livable wage rates are discussed in more detail in the Economic Development Chapter.)

Table 10.3: Ability to Afford

	Town of Cavendish	Windsor County	State of Vermont
Owner-Occupied Units			
Median Household Income (Owner-Occupied Units)	$50,774	$62,816	$64,771
Median Value of Owner-Occupied Units	$181,500	$213,500	$213,000
Owner costs at or above 30% of household income	32.7%	34.1%	33.1%
Owner costs at or above 50% of household income	13.2%	14.3%	12.1%
Renter-Occupied Units			
Median Household Income (Rental Units)	$33,125	$30,927	$30,943
Median Gross Rent (All Units)	$747	$842	$843
Costs at or above 30% of household income	46.4%	49.9%	51.9%
Costs at or above 50% of household income	23.6%	25.6%	25.4%

Source: American Community Survey 2007-2011, US Census Bureau

As noted in the VHFA document[6], Cavendish had one of the highest incidences of cost burden among mortgaged owner residents. The likelihood of foreclosure increases dramatically when a household's mortgage and other housing expenses consume a high portion of their income.

Table 10.4 Estimates the affordable sales price of a home based on various income categories. Compare those figures to $159,000, which is the median price of primary residences sold in Cavendish in 2011. In order to address this situation, there is an obvious need to provide additional affordable housing units, strive to increase wages, or a combination of both.

Table 10.4: Price of an Affordable House Based on Certain Income Levels

Income Levels	Income	Affordable Sales Price	Cash at Closing
50% of Median County Income	$26,565	$88,000	$8,740
80% of Median County Income [1]	$42,503	$143,500	$12,646
100% of Median Town Income	$42,250	$142,500	$12,574
150% of Median Town Income	$63,375	$215,000	$17,794

Sources: US Census Bureau American Community Survey 2007-2011; VHFA Home Motgage Calculator

[1] Affordable housing is defined under 24 V.S.A. §4303 based upon 80% of the County Median Income

Transportation costs are also an important component of affordability. Annual transportation costs of no more than 15% are generally considered as an appropriate affordable target for a household. According to an analysis completed by the SWCRPC in 2012, transportation costs are estimated to be 27% for a Cavendish household that earns 80% of the County median income. This relatively high cost is attributable to prevailing commuting patterns, cost of gasoline, estimated travel distance to services and other factors. Interestingly, commuter patterns indicate a large proportion of Cavendish residents travel to jobs located outside of Cavendish,

while many of the people that work in town live somewhere else. Transportation costs would likely be reduced if residents found work locally or if public transportation services were a convenient means for their travel needs.

8.3 Accessory Dwelling Units

Accessory dwelling units, as defined under 24 V.S.A. §4412(1)(E), are an effective way to provide affordable housing options in many communities. It is unknown at this time how many accessory dwelling units are located within Cavendish. There are no zoning or subdivision regulations in Cavendish. As a result, there are no local regulations excluding one accessory dwelling unit to be located within or appurtenant to an owner-occupied single-family home.

8.4 Policies and Recommendations

Housing Policies

Promote availability of housing types, such as single-family, multi-family, elderly, special needs, mixed-income and condominium.

1. Preserve, develop or rehabilitate energy-efficient housing, designed to maintain the character of the residential areas of Town.
2. Support the Windham Windsor Housing Trust and similar organizations in their efforts to provide affordable housing in a manner that is consistent with the Cavendish Town Plan.
3. Adopt a regional approach to the provision of affordable housing in order to lessen the burden on those communities already providing their fair share.
4. Support the development of multi-family and rental housing on the second and third floors of commercial buildings located in village centers
5. Residential housing projects requiring Act 250 permits shall provide that 10 percent of the housing be affordable to those inhabitants whose gross annual household income does not exceed 80 % of the Windsor County median income. Such provisions must be made by inclusion of affordable housing within the project or a mitigation payment to be used for affordable housing in Cavendish or a project serving the Cavendish area.

Housing Recommendations

1. Ensure that the design of any proposed housing is consistent with the characteristics of the surrounding area in terms of design and site location.
2. Developers must plan new housing that considers the location with respect to the physical limitations of the land, proximity to roads, distance from commercial or service centers and other constraints.
3. Encourage innovative site plans and construction designs that utilize cost-saving materials, efficient site location, and other cost- and energy-efficient methods for the development or rehabilitation of housing.
4. Support housing modifications and services that allow elderly residents to age in place (in their own homes).

Chapter 9: Economic Development

The purpose of this section is to describe existing economic conditions, desired future economic conditions, and to identify implementation strategies that the community wishes to pursue.

9.1 Present Conditions

The number of local employers has generally been steady since 1995. A slight decline after 2008 appears to have rebounded in 2012 (see Figure 11.1). The number of jobs for Cavendish residents peaked from 2000 through 2005[7]. The number of jobs has dropped since 2005, with an increase in 2017 as a number of new businesses moved into town.

Figure 11.1: Trends in Covered Employment (All NAICS Ownership Types)

Year	Establishments	Employment	Total Wages	Average Wage
1980	38	261	$ 2,689,164	$ 10,307
1985	34	246	$ 3,112,629	$ 12,649
1990	36	316	$ 4,890,767	$ 15,473
1995	43	465	$ 8,684,919	$ 18,687
2000	42	528	$ 12,491,524	$ 23,651
2001	43	507	$ 12,463,783	$ 24,563
2002	44	475	$ 12,234,879	$ 25,740
2003	44	463	$ 12,625,289	$ 27,264
2004	45	507	$ 14,600,122	$ 28,792
2005	45	525	$ 14,830,515	$ 28,249
2006	44	380	$ 9,485,936	$ 24,969
2007	44	381	$ 10,010,367	$ 26,308
2008	45	344	$ 9,507,455	$ 27,678
2009	41	313	$ 8,628,756	$ 27,583
2010	41	314	$ 8,817,432	$ 28,051
2011	42	339	$ 10,020,888	$ 29,582
2012	46	366	$ 10,801,600	$ 29,486

Source: Covered Employment & Wages, Economic & Labor Market Information, Vermont Department of Labor

As stated in Chapter One, Windsor County has seen a decline in the number of manufacturing jobs since 1980, as discussed in Chapter 1. However, manufacturing remains important economic sector for Cavendish, accounting for more than 16% of local employment. (See Figure 11.2 for more information.) According to employment data from the Vermont Department of Labor, there are four manufacturing businesses in Cavendish and the number of manufacturing jobs has increased recently after years of decline, from 99 in 2010 to 122 jobs in 2012.

Other important economic sectors for Cavendish include health care and social services, lodging and food services, education and retail trade (see Figure 11.2). Home-based occupations are very important to the local economy, but are generally under-reported. Appendix C lists many,

[7] Number of jobs is based on a simple average of the reported monthly employment figures for the calendar year, as reported in Covered Employment and Wages by the Vermont Department of Labor

but not all, businesses that are located in or owned by residents of Cavendish, as compiled by the Cavendish Historical Society. A high proportion of self-employed jobs include artists, musicians, home improvement/building trades, and food services. The Town views home-based occupations as a positive opportunity to diversify the local economy and increase employment.

Only 10% of Cavendish residents, whose work is not home-based, work in Cavendish. Commuting destinations are widely dispersed which makes public transportation and carpooling more of a challenge. Common work destinations include Springfield, Claremont, Rutland, Ludlow and Lebanon, NH. In addition, 252 people live in other towns and travel to a job in Cavendish (See Figure 11.2).

According to American Community Survey data, the median household income in Cavendish is $42,250, which lags behind median incomes for both Windsor County and the State of Vermont. This local income level is also below the livable wage rates for all categories with the exception of a single-person household (See Figure 11.2).

Aside from Mack Molding, which employs approximately 150 people, most other local employers have fewer than 10 employees. Many of these small businesses in Cavendish include lodging and food services, such as a hotel, condominiums, inns, bed and breakfasts, restaurants and specialty food shops. Major employers in surrounding towns include, but are not limited to, Okemo Mountain Resort, Jeld-Wen, Gill Odd Fellows Home, Newsbank, Black River Produce, Hancor, Springfield Hospital, Mt Ascutney Hospital, and area schools.

9.1.1 Local Economic Development Programs and Assets

The following local assets are available to support economic development in the Town of Cavendish:

1. The community is served by the Okemo Valley Chamber of Commerce and Springfield Regional Development Corporation.
2. Both villages are served by municipal infrastructure (i.e. public water and sewer systems, sidewalks).
3. In 2014, the Town adopted a Capital Budget and Program that will guide future municipal infrastructure improvements.
4. VT Routes 103 is a heavily traveled principal arterial highway (8,000 AADT just north of Proctorsville, 2012) that connects to I-91 in Rockingham to the southeast and VT Route 7 near Rutland to the northwest. It is one of the few east-west connections in Vermont. The portion of VT 103 that connects to Ludlow is designated as part of the Scenic Route 100 Corridor.
5. VT Route 131 is designated as a Scenic Highway in Cavendish. VT 131 connects to I-91 in Ascutney with additional connections to Claremont, NH. The State has scheduled major paving improvements for the Cavendish section of this road for ~~2018-2019~~ 2021.
6. Vocational training is available through the Howard Dean Education Center in Springfield.

7. Fletcher Farm School for the Arts and Crafts located on the border between Ludlow and Cavendish (see http://www.fletcherfarm.org/).

Figure 11.2: Economic Profile for Cavendish, VT

2011 Jobs [1]	
Live & Work in Cavendish	59
Live in Cavendish, Work Elsewhere	558
Work in Cavendish, Live Elsewhere	252
Age of Workers (2011) [1]	
Age 29 or younger	17.7%
Age 30 to 54	53.3%
Age 55 or older	29.0%
Jobs by Worker Educational Attainment (2011) [1]	
Less than high school	5.8%
High school or equivalent, no college	30.0%
Some college or Associate degree	26.3%
Bachelor's degree or advanced degree	20.3%
Educational attainment not available (workers aged 29 or younger)	17.7%
Jobs by Earnings (2011) [1]	
$1,250 per month or less	32.9%
$1,251 to $3,333 per month	38.4%
More than $3,333 per month	28.7%
Median Household Income (2010) [2]	
Town of Cavendish	$42,250
Windsor County	$53,129
State of Vermont	$53,422
Livable Wage for Rural Areas (2010) [3]	
Two people, two wage earners, no children	$54,246
Single person, one wage earner, no children	$34,132
Single parent, one wage earner, one child	$47,923
Single parent, one wage earner, two children	$59,446
Two parents, one wage earner, two children	$62,629
Two parents, two wage earners, two children	$78,000
Poverty Status in the Past 12 Months [2]	
Poverty Rate (2010)	11.2%
Employment Status in the Past 12 Months [4]	
Unemployment Rate (2012)	6.3%

Jobs by NAICS Industry Sector (2011) [1]	
Agriculture, Forestry, Fishing and Hunting	0.5%
Mining, Quarrying, and Oil and Gas Extraction	0.2%
Utilities	0.5%
Construction	6.5%
Manufacturing	16.5%
Wholesale Trade	2.6%
Retail Trade	10.0%
Transportation and Warehousing	2.1%
Information	1.6%
Finance and Insurance	1.0%
Real Estate and Rental and Leasing	1.6%
Professional, Scientific, and Technical Services	2.3%
Management of Companies and Enterprises	0.5%
Administration & Support, Waste Management, Remediation	2.1%
Educational Services	10.4%
Health Care and Social Assistance	19.1%
Arts, Entertainment, and Recreation	1.3%
Accommodation and Food Services	13.0%
Other Services (excluding Public Administration)	3.2%
Public Administration	5.0%
Work Location of Residents (2011) [1]	
Springfield CDP, VT	7.0%
Rutland city, VT	5.0%
Ludlow village, VT	4.4%
Cavendish CDP, VT	3.7%
Lebanon city, NH	3.4%
Bellows Falls village, VT	3.4%
North Springfield CDP, VT	2.9%
Chester CDP, VT	2.8%
Claremont city, NH	1.9%
Proctorsville CDP, VT	1.9%
All Other Locations	63.5%
Commuting Distances for Employed Residents (2011) [1]	
Less than 10 miles	37.3%
10 to 24 miles	39.1%
25 to 50 miles	12.8%
Greater than 50 miles	10.9%

Sources:

[1] U.S. Census Bureau, LEHD Origin-Destination Employment Statistics (2011)

[2] U.S. Census Bureau, 2007-2011 American Community Survey 5-Year Estimates

[3] *Basic Needs Report* Vermont Joint Fiscal Office, January 2010 (via Vermont Livable Wage Campaign Website)

[4] Local Area Unemployment Statistics (LAUS) program, produced by the Vermont Department of Labor, Economic & Labor Market Information, in cooperation with the U.S. Bureau of Labor Statistics

9.2 Desired Future Economic Conditions

In accordance with State planning goals [24 V.S.A. §4302(c) (1)(B) and (2)], the Town of Cavendish promotes a strong and diverse local economy that:

1. Provides satisfying and rewarding job opportunities;
2. Maintains high environmental and quality of life standards;
3. Concentrates economic growth within the designated Village Centers of Cavendish and Proctorsville; and
4. Promotes working landscape activities and home occupations in locations throughout the rest of the Town.

9.2.1 Village Center Designation

The Town of Cavendish has two distinct village centers, Village of Proctorsville and the Village of Cavendish. The Town wishes to foster conditions that support vibrant local stores and community services located within these two villages. Both villages received "Village Center Designation" originally in 2004. (See the current land use and future land use maps that both depict the designated Village Center boundaries.) Designation is an important tool to help implement village revitalization efforts called for in this Town Plan.

Property owners with income producing properties within the designated village areas are eligible for a 5% Vermont income tax benefit for substantial rehabilitation to certified historic buildings. Building owners are also eligible for a 50% Vermont income tax credit for code improvements for commercial buildings. Projects within designated Village Centers are also given priority for all State Municipal Planning Grants and Consolidated Planning grants from HUD. The Vermont Department of State Buildings, in consultation with the community, gives priority consideration to designated Village Centers when locating or leasing buildings. In the tradition of Vermont community centers, the two designated Village Centers are the desired locations for retail and other commercial uses and the most intensive residential development in Cavendish.

Historically, manufacturing occurred within the villages. Mack Molding is located within the Cavendish Village Center and is encouraged to continue in that location. Additional, light industrial or manufacturing operations are encouraged in these areas as long as they meet the intent and applicable standards in this Plan.

9.2.2 Rural Working Landscape

The Town shall promote and encourage farming and forestry in the rural portions of the community. In keeping with healthy community and local food initiatives, the Town shall pursue efforts to increase the local production of farm-fresh foods and value-added farm products, improve access to fresh and healthy food, use public space for community gardens and farmers' markets, and support the local Farm to School program.

Home occupations and home-based businesses are a significant component of the local economy. The town shall encourage efforts to expand these enterprises.

9.3 Strategies to Foster Desired Economic Conditions

In order to achieve these desired future economic conditions, the Town wishes to work with partner organizations on the following strategies:

1. Maintain existing businesses.
2. Improve broadband speeds and access throughout Town.
3. Maintain Village Center designation to maintain eligibility for tax credits.
4. Pursue strategic investments to improve local infrastructure and expand community offerings that benefit existing residents and entice people to move to Cavendish (see the Investing in Place for Economic Growth and Competitiveness summary below). Evaluate the Capital Budget and Program to determine if the planned community investments contribute toward these invest-in-place priorities.
5. Coordinate with ad hoc groups or partner organizations to establish a community branding and marketing campaign using all relevant media outlets (e.g. Cavendish Blog, Facebook, Twitter, Pinterest, Instagram, etc.).
6. Support efforts to create co-working space for self-employed or start-up businesses within the villages that provides affordable rents for shared office facilities and meeting space.
7. Identify feasibility to develop an informational brochure or other materials that highlight the reasons to live and work in Cavendish for distribution to realtors and potential new residents.

Investing in Place for Economic Growth and Competitiveness

A National Survey conducted for the American Planning Association in March 2014 is documented in the above referenced study, which can be found at http://www.planning.org/policy/polls/investing/. The results, which indicate what "Millennials" (ages 21 to 34) and "Active Boomers" (ages 50 to 65) desire in a place to live, can inform local economic development efforts. Certain study findings are highlighted below.

Priorities when choosing a neighborhood:

62% of millennials want to be close to their job

51% of active boomers want to be close to retail and entertainment

1/3 of all want convenient transit

63% of active boomers want to age-in-place

56% of millennials prefer to live in a walkable community

The **best way to grow the economy is investing in the community**, including schools, transportation choices and walkable areas:

65% overall 74% millennials 60% active boomers

Most **focus on healthy communities** (i.e. parks, trails, healthy food) when deciding where to live:

52% millennials 59% active boomers

9.4 Policies and Recommendations

Economic Development Policies

1. Promote the establishment of new businesses, and enhancement and maintenance of existing businesses.
2. Economic growth shall occur at a rate that does not undermine the ability of the taxpayers to support the Town on a sound basis.
3. Economic growth shall be focused in village centers and areas designated for industry on the Future Land Use Map and provide for the revitalization and rehabilitation of existing village centers.
4. Encourage home occupations and home-based businesses, both in the village and rural areas, as long as they are appropriate to adjoining land uses and do not adversely affect air, water, or scenic resources or cause noise that is offensive to surrounding neighbors.
5. Residential housing projects requiring Act 250 permits shall provide that 10 percent of the housing be affordable to those inhabitants whose gross annual household income does not exceed 80 % of the Windsor County median income. Such provisions must be made by inclusion of affordable housing within the project or a mitigation payment to be used for affordable housing in Cavendish or a project serving the Cavendish area.

Economic Development Recommendations

1. Provide municipal services in identified areas where commercial and industrial development is specifically encouraged.
2. Encourage the rehabilitation and use of existing buildings in the village centers for commercial, light industrial or mixed use.

Chapter 10: Flood Resilience

The purpose of this Chapter is to identify areas that are prone to flooding and erosion hazards, designate areas to be protected, and create policies and strategies that promote community flood resiliency.

10.1 Identify Flood and Erosion Hazard Areas

Cavendish adopted a FEMA-approved All-Hazard Mitigation Plan in 2013 which was updated and adopted in 2016. That Plan identifies floods as the most probable hazard event in Cavendish. This Plan includes inundation flooding events, ice jams, flash floods, fluvial erosion hazards and potential dam failures. The Water Resources Map identifies the following hazard areas:

1. **Special Flood Hazard Areas**: These are comprised of floodway and floodplain areas, based on FEMA flood insurance rate mapping (D-FIRM) information. Floodplains represent inundation flooding hazards. These floodplains lie mainly along the Black River and Twenty-Mile Stream. There is a total of 65 existing structures located within these flood hazard areas, most of which are within the villages of Proctorsville and Cavendish, and in the Whitesville area.
2. **River Corridors**: River corridors, as mapped by the Agency of Natural Resources, represent portions of town that are particularly at risk of river-related erosion hazards. The mapped river corridors are along the Black River, Twenty Mile Stream, North Branch of the Black River, and some of the larger tributaries.
3. **Lands Adjacent to Smaller Streams**: Other areas may also be at risk from flooding and/or erosion hazards, including land areas along the shoreline of the other streams and surface water bodies in town. The map depicts streams in Cavendish, but – at this time – good data on perennial streams is not available.

The Hazard Mitigation Plan lists past flood events that impacted Cavendish in the past. Residents of Cavendish have experienced three major floods within the last 100 years, one in 1927, one in 1973 and Tropical Storm Irene in 2011. The 1927 flood destroyed much of lower Cavendish Village and many houses and barns, while the 1973 flood washed out mainly roads and bridges. Irene-related damages were severe, as highlighted in the 2011 annual town report:

"All over Cavendish: from Newton Road to Greven Road Extension; from Felchville Gulf Road to Cavendish Gulf Road; from Twenty Mile Stream Road to Greenbush Road and virtually all points in between there was severe flooding which wiped out roads, bridges, driveways, utility poles, yards, houses, commercial buildings and churches. The low-lying parts of the villages of Proctorsville and Cavendish became inundated and wracked by devastating currents.

"Cavendish found itself alone – literally cut off from the rest of the world by State highways, town roads, culverts and bridges which were impassable in all directions! Power outages were widespread and many lost telephone services. Both villages soon found themselves without water as there were three sections of municipal water main and a section of municipal sewer main which were literally blown apart. There simply was no water left in the system."

10.2 Designate Areas to be Protected

The following areas are identified for their role in promoting flood resilience in Cavendish:

1. **Special Flood Hazard Areas**: Generally, new development is discouraged within these flood hazard zones. The Town first adopted Flood Hazard Area Regulations in 1989 and amended them most recently in 2016. The Town is also enrolled in the National Flood Insurance Program, which makes property owners eligible for flood insurance. Any development in these flood hazard areas require local permits and must meet the applicable standards to mitigate against inundation flooding.

2. **River Corridors**: A significant portion of the damages sustained during Tropical Storm Irene were related to river erosion hazards. These areas are depicted on the Water Resources Map as the river corridor protection area as mapped by the Vermont Agency of Natural Resources. The Town amended the Flood Hazard Area Regulations that regulates development within river corridors.

   A stream geomorphic assessment completed in 2010 identifies in more detail the areas where bank erosion or scouring of river beds is more likely to occur, representing a hazard to life, property and infrastructure.

3. **Stream Setbacks**: Since the mapped special flood hazard areas and river corridors do not include all areas that may be at risk from flooding and erosion hazards, development along the other perennial streams in Town is also at risk. It is recommended that new development be avoided within a minimum area of 50 feet from the stream, measured from the top of the stream bank or slope. (The Planning Commission is also considering including provisions to regulate development along these smaller perennial streams, as recommended in the State flood regulations.)

4. **Wetlands**: Along with their other benefits, wetlands serve an important function to help mitigate flood damages. Wetlands are generally regulated by the State Wetland Rules and Act 250. The Town should coordinate with the Black River Action Team, ANR's Watershed Coordinator, SWCRPC and others to seek grants to protect or improve wetlands for the purpose of flood water retention.

5. **Upland Areas**: Natural vegetation in upland areas and areas of steep slopes contributes to flood resiliency by maximizing on-site infiltration of storm water, which reduces the impacts upon downhill properties. The Town encourages residents in these types of areas to consider taking steps, such as limiting tree cutting, minimizing site disturbances, and using special design techniques that seek to maximize storm water seeping into the soil onsite, instead of flowing offsite via sheet-flow or in ditches and drainage pipes.

10.3 Policies and Strategies to Protect Areas and Mitigate Risks

The policies to promote community flood resilience are identified in Chapter 1. Strategies are included in the All Hazard Mitigation Plan as well as in the Implementation section. Additional strategies may include:

1. Holding meetings or providing materials to inform property owners about these flood hazard risks and steps they can take to mitigate their risks (e.g. flood insurance, retrofit projects, property buy-outs, avoid new encroachments in harms-way).

2. Seek grant applications for flood mitigation projects, in coordination with partners, as identified in the Phase 2 stream geomorphic assessment or Basin 10 Plan.
3. Encourage property owners in upland areas to utilize techniques that help to maximize on-site storm water infiltration and minimize off-site storm water flows (e.g. best management practices, green infrastructure or low impact development techniques).

Flood Resilience Policies

1. Development plans for lands subject to periodic flooding must comply with local, state and federal flood hazard regulations in order to protect the health, safety and welfare of the public.

Flood Resilience Recommendations

The Town will seek to implement the following recommendations in order to achieve greater flood resilience:

1. Provide information to property owners within the identified flood and erosion hazard zones on what these risks involve and how to lessen future damages.
2. Implement strategies in the All-Hazard Mitigation Plan, including:
   a) Replace undersized culverts.
   b) Purchase land along Winery Road for flood storage.
   c) Encourage property owners to tie down all non-anchored structures.
   d) Identify repeat flood damage properties and develop a system to prevent and/or eliminate the potential for future damage.
   e) Maintain current NFIP status.

Chapter 11: Land Use

The most important considerations in determining desirable land uses are:

1. "Will it be good for the Town?"
2. "Is it compatible with the Goals and Objectives of the Town Plan?"
3. "Can the land support it?"

The land use recommendations of the Town Plan shall consider these three questions regarding the future growth of the Town. A use which will have an adverse effect on the Town shall not be undertaken, even if the land is perfectly capable of supporting it. A use which the land cannot support should not be undertaken, even if it is good for the Town. A use shall not be undertaken if it is not compatible with the Goals and Objectives of the Town Plan.

Figure 11.1: Cavendish Village from Gulf Road

11.1 Summary of Existing Land Uses

Land use in Cavendish follows the patterns of traditional Vermont towns. Proctorsville and Cavendish villages have a mixture of commercial, industrial, and residential uses, including services such as post offices, elementary school, bus stops, and municipal offices. The villages are served by municipal water and sewer service, while outlying areas are served by private wells and on-site septic systems. Areas outside of the village centers are rural in nature with a mix of year-round and vacation homes.

The majority of the land area in the Town is forestland, much of which is owned by the State. Steep slopes, undeveloped ridgelines, the Black River valley, Twenty Mile Stream valley and large wetland areas not only add to the scenic beauty of the landscape, but are also important habitat areas for deer, moose and bear. These areas also serve important ecological functions, sometimes known as "green infrastructure", that contribute toward clean water and air, carbon sequestration, flood control, and climate change mitigation. The many open fields and agricultural lands are also important assets to the Town and add to its rural character.

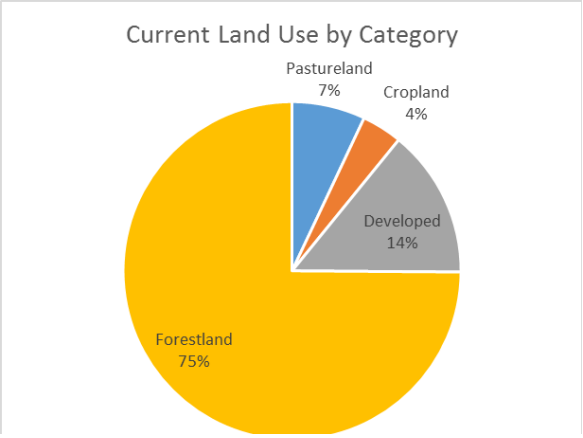


Figure 11.2 Summary of Existing Land Use Types

The Current Land Use Map depicts the existing land uses based upon the most recent GIS mapping data. Figure 11.2 shows the percentage of total land area in Cavendish by current land use category. Table 11.1 below was compiled

from the Cavendish Grand List. It illustrates the distribution of land parcels among the different Grand List use categories.

Table 11.1: Current Land Use Summary

Land Use Type	No. of Parcels	Acres	Avg. Lot Size	Total Valuation
Commercial/Industrial	63	423	7	$23,948,600
Residential with less than 6 acres	464	700	2	$82,835,600
Residential with 6 or more acres	225	10,041	45	$76,143,600
Mobile Home without land	63			$421,300
Mobile Home with land	59	321	5	$5,130,800
Vacation home with less than 6 acres	16	24	2	$2,467,400
Seasonal home with 6 or more acres	16	699	44	$2,347,700
Other (Largely Condos)	78	38	0	$27,173,800
Woodland	97	6,631	68	$12,417,000
Utilities (Elec, Cable)	7	0	0	$17,813,951
Miscellaneous	115	5,791	50	$11,561,035
Total	**1,203**	**24,668**	**21**	**$262,260,786**

Source: 2010 Cavendish Grand List (Vermont Dept. of Taxes)

11.1.2 Pace of Growth

Cavendish is a rural community. Most residents live in Cavendish by choice, thereby indicating a preference for this rural character rather than an urban or suburban community. Growth should occur at a pace and in a manner that does not destroy the rural character or result in rising taxes. Growth that is good for the Town enhances the social, environmental, cultural, and economic values of our rural community. Growth and development shall not create a burden on the taxpayers' ability to support the Town.

11.2 Summary of Desired Future Land Uses

The Town Plan addresses Future Land Use for the Town of Cavendish in three ways:

1. Future Land Use categories that are shown on the Future Land Use Map.
2. Resource Areas that are shown on the various resource maps in this Town Plan.
3. Public water and sewer service areas as discussed in Chapter 4 and related future capital investments identified in Cavendish's Capital Budget and Program.

The descriptions of land use categories and natural resource areas are shown on the maps described above. They are meant to serve as a guide to the type and intensity of uses appropriate to each area by describing the values that each category provides for the Town. The descriptions do not prescribe or prohibit a specific use or set of uses for any category; the actual uses of the land may have some overlap between categories. For example, forestland will continue to support rural residential development, conservation land will support many types of recreation, and recreation land will support forestry use. Development is inappropriate in any one category if, whether alone or combined with other uses in the area, it threatens the values described below.

The Future Land Use Map is general in nature, and the boundaries of different categories were drawn with this in mind. They are not meant to be detailed representations of present conditions, nor are they intended to be precisely bounded areas of completely segregated land uses in the future.

11.2.1 Future Land Use Categories

See Table 11.2 for a summary of these future land use category descriptions.

Village Center

The two designated Village Centers of Proctorsville and Cavendish currently have a mixture of high density residential, commercial, industrial, and public uses. These areas should remain as they are in character and settlement pattern. Commercial development has historically been located in the village centers, and is encouraged to occur in these areas because of the availability of Town water and sewage. Commercial development in mixed-use areas shall be surrounded and interspersed with high-density residential, public and compatible industrial uses. These areas are intended to continue the long tradition of Vermont's downtowns and village centers. Development in these areas shall be the highest density in the Town, and should facilitate development of a circulation system that accommodates pedestrians and other non-vehicular travel. Lot sizes commonly range between one-third to one-half acre in size. Multi-story mixed-use buildings are common. New development must not detract from the historic character and aesthetic qualities of the village centers.

Village

These areas serve as the residential neighborhoods that surround the Village Centers and represent the remainder of the village areas that are served by public water and sewer systems. Since they are served by infrastructure and generally within walking distance of the Village center, the Village areas are to be of moderate density (i.e. 1-2 acre lot sizes). New and infill residential development is encouraged in this area, as long as it furthers the desired future conditions of creating walkable neighborhoods. Additional uses that are encouraged for these areas include civic uses (e.g. cemeteries, parks and governmental facilities), churches, home occupations, and small-scale businesses (i.e. corner store) as long as they maintain the character of the area and minimize negative impacts on neighboring properties.

Industrial

Industrial areas are places that have been singled out for uses that may be incompatible with other uses because of traffic, noise, or inherent conflict with downtown character. They also represent land reserved for industries such as mining, which may have inherent limitations on where they can function. These areas should be reserved for industrial development or resource extraction and managed to minimize traffic, environmental, and aesthetic impacts on surrounding areas.

Table 11.2: Summary of Future Land Use Categories

Categories	Type	Infrastructure	Density	Character
Village Center	Commercial & Civic Center	Muni	High (0.3-0.5 ac lots)	Serves as traditional community center; commerce; civic structures; pleasant pedestrian environment; multi-story, mixed-use buildings; public gathering spaces
Village	Residential Neighborhoods	Muni	Moderate (1-2 ac lots)	Where existing and new housing is desired within walking distance of Village Centers; rural/walkable neighborhoods
Industrial	Mining/Rural Industrial	Muni or On-Site	Variable (2-12 ac lots)	Intensity of use will depend upon site conditions; minimze environmental impacts; maintain character of the area
Rural Residential	Residential/ Rural Character	On-Site	Low (2-5 ac lots)	Low density residential and home-based businesses; maintain rural character; avoid sprawl
Agriculture	Working Landscape	On-Site	Low-Very Low (5-8 ac lots)	Allow low to very low density development while preserving agricultural soils and farms for local food production/rural character
Forest	Working Landscape	On-Site	Very Low (10+ ac lots)	Allow very low density development while maintaining large tracts of lands for forestry, wildlife, flood resilience and rural character
Recreation	Open Space/ Parks	On-Site	N/A	Public recreation areas
Conservation	Open Space	On-Site	N/A	State-owned lands often used for forestry, wildlife management and/or public recreation

Rural Residential

Rural Residential areas can support a number of different uses, including low density residential, forest, agricultural (including tree farms and other horticultural uses), open, and transitional (scrub/shrub). They have been designated based on their current use and accessibility from existing roads. Rural areas shall allow only compatible uses, and maintain existing, low-density settlement patterns. Sprawl and strip development shall be avoided and cluster development shall be incorporated, as long as the overall density remains low. Open space and recreational resources should be preserved wherever possible. New residential development may occur in Rural Residential areas only where accessible by existing town roads.

Recreation

Public and private indoor and outdoor recreation opportunities are a vital part of the Town's economy and quality of life. Publicly accessible recreation opportunities shall be enhanced where possible, and measures taken so opportunities are not diminished. Designated recreation areas shall retain their recreational value to the public; where development would reduce these recreational opportunities, alternatives shall be provided. Conservation areas provide recreational use and shall be valued as such.

Agriculture

Agricultural land has historically been important to the Town's economy, food supply, and cultural heritage. It contributes to the land use patterns and aesthetic qualities that make the Town a desirable place to live, work, and visit. Land in agricultural use and idle open land with agricultural potential possess these values. The potential for agricultural use and production shall not be impaired in designated agricultural areas. Cluster development shall be incorporated in these areas for the preservation of open lands.

Forest

The majority of undeveloped land in Cavendish is forested. The State owns much of this land and manages it for forestry and wildlife habitat, while allowing recreational uses. Maintaining forest blocks and wild life connectors within large areas of forestland is important for many types of wildlife, especially for large mammals such as deer, bear, and moose. The State Agency of Natural Resources has identified several large areas within the town as deer wintering areas and bear habitat. Refer to the ANR 's Biofinder for specific locations. (http://anrmaps.vermont.gov/websites/Biofinder2016/). Any development which occurs in forest areas should be designed so that these important habitat areas are maintained wherever possible. Forest areas are also important for their recreational, aesthetic, and economic resource values. The ability of Forest areas to provide these benefits shall not be impaired. Development in these areas shall be undertaken in ways that protect their value and ensure the continued presence of healthy forest ecosystems in the Town. Cluster development shall be incorporated in these areas for the maximization of forest preservation.

Conservation

Conservation areas are lands that possess outstanding value or potential as wildlife habitat, recreation areas, educational resources, fragile natural areas, economic assets (generating revenue from recreation and tourism), or aesthetic resources. Conservation lands represent relatively pristine areas of the Town that residents wish to preserve in their natural state for future generations, and shall receive the highest level of protection from development. Special care must be taken in any resource management or extraction plans to maintain the character and value of these areas. Conservation areas are especially beneficial when surrounded by compatible uses such as forest and agriculture.

Special Considerations

There are several important resources that may occur within any of the land use categories above, and which merit special attention and protection. They include: Public Water Supply Source Protection Areas; floodplains, vegetated areas next to surface waters, wetlands, the Black River and corridor, Natural Heritage Inventory sites, critical deer wintering habitat and bear habitat as defined by the Vermont Agency of Natural Resources, regionally significant historic sites, and other locally defined sensitive natural areas and scenic resources. Development must avoid and minimize negative impacts to these resources. In addition, special considerations should be observed in the following areas:

High elevations and steep slopes — At high elevations (greater than 1,500 feet) the soil tends to be thinner and cooler and less able to support a wide range of plant life. If areas are disturbed the potential for severe erosion is great. Land at 1,500 feet and above as well as lands with steeps slopes (greater than 25%) shall be protected from any development which will cause soil erosion.

Ridgelines — Any development which is proposed at higher elevations shall demonstrate that every measure has been taken so that the development is not visually obtrusive to surrounding neighbors or from public roadways.

Floodplains – Any development in FEMA special flood hazard area is subject to Cavendish's Flood Hazard Area Regulations and shall be in conformance with the Flood Resilience Chapter in this Plan.

While residential development may be expected in almost all land use categories, higher densities must be concentrated in and around established village areas. Residential development should be compatible with the land use and housing goals of this plan, and shall not conflict with the values defined in the land use categories of this plan.

11.3 Policies and Recommendations

Land Use Policies

1. Any proposed development shall not place an undue burden upon Town facilities or services. If the additional property taxes would not cover the additional burden placed on Town services, imposition of impact fees shall be considered.
2. Preserve the historical development pattern of mixed-use urban and village areas surrounded by open land, agriculture, forest, and low-density residential use.
3. Direct growth and development toward areas of the Town where it will be most effective and efficient to provide the necessary public infrastructure and services.
4. Commercial development that occurs outside the village centers shall not contribute to strip development. Access management and innovative commercial development that maintains the characteristics of existing villages is encouraged.
5. In order to maintain the existing settlement patterns, higher density residential, commercial, and compatible industrial development shall be located in village centers.
6. Development shall not detract from the historic character and aesthetic qualities of the village centers.
7. Noise from commercial activities, including but not limited to mineral and earth extraction/removal, processing and related trucking, in the Industrial District shall not exceed 50 dBA Lmax at the property line and 45 dBA Lmax at the nearest residence. The particular qualities and duration of industrial operations are readily detectable by the human ear and may require further lowering of the permitted decibel levels.
8. In all other land use districts noise/vibrations from commercial activities must not create noise or vibrations that would be considered out of context for that rural area, and are meant to be more restrictive than the noise limitations described above for the industrial district. This is clearly intended so that our rural town retains its highly valued quiet ambiance and character and residents and visitors can continue to enjoy the natural sounds and rural atmosphere which are prevalent here.

Land Use Recommendations

1. Develop and enforce effective land use regulations that are consistent with the purpose and intent of the town plan. These regulations may include zoning ordinances, subdivision regulations, and individual ordinances such as signage, lighting, and noise.

Chapter 12: Implementation

Successful implementation of the goals, policies and recommendations outlined in this Plan depends on the combined efforts of Town residents and local officials, as well as the resources of the Southern Windsor County Regional Planning Commission, and other regional, state, federal and private entities involved in land use planning activities. The Town of Cavendish does not presently have zoning or subdivision bylaws in effect. Implementation of the Town Plan will be accomplished through the following broad means:

1. Flood Hazard Area Regulations;
2. Municipal Ordinances (e.g. Outdoor Storage of Junk and Junk Vehicles, Aircraft Take-off and Landing Facilities);
3. Provision of municipal facilities that support the desired future land use conditions and village center revitalization efforts;
4. The Town Plan and Capital Budget & Program that will form the basis for grant applications and other funding opportunities (e.g. community development, transportation improvements, natural resource protection and management, and other investments);
5. Act 250 requirement that developers show that projects conform to local and regional plans;
6. Approval and confirmation from the Southern Windsor County Regional Planning Commission, which will make the Town eligible for Municipal Planning Grants and Village Center Designation.

In addition, the Town seeks to pursue the following specific activities to implement this Town Plan:

1. Develop specific ordinances to implement the Town Plan.
2. Inform the community about opportunities to preserve Cavendish's rural character. Solicit community feedback through workshops and surveys.
3. Maintain an up-to-date Capital Budget and Program that conforms with the priorities of the Town Plan. Refer to the Town Plan when planning additions and improvements to local infrastructure such as local roads and public utilities. Such additions or improvements shall be used to plan for appropriate growth and development.
4. Work with public and private entities to help them design development or resource management plans in ways that will further the goals of this Plan.
5. Work with area land trusts to develop a plan for conservation of important resource lands.
6. Work with the Department of Forests, Parks, and Recreation to update forest management plans for State forest lands in Cavendish.
7. Participate in Act 250 hearings and Section 248 proceedings to present evidence on the conformance or nonconformance of projects to the objectives, and policies of the specific sections of the plan.
8. Enhance and improve communication and interaction between the Planning Commission and the community.

9. Engage in a continuing effort to implement the recommendations and strategies identified in this Town Plan, including but not limited to the future transportation needs, and public utility and facility priorities.
10. Maintain Village Center designation as a critically important tool to implement the Town Plan.

12.1 Interpretation of the Town Plan

The Cavendish Planning Commission recognizes that the Town Plan has regulatory effect only for projects which require an Act 250 permit (commercial or industrial projects on more than an acre, subdivisions of six or more lots, ten or more housing units, local state or municipal projects which disturb 10 or more acres of land, oil and gas drilling, and development over 2,500 feet in elevation). For purposes of Act 250 review, plan language that contains the words "shall," "must," "will," "ensure," "protect," "insure," "maintain," "improve," and "preserve" is mandatory language. The Town Plan maps are an integral part of the Town Plan.

12.2 Implementation of Previous Town Plan

The following highlights various efforts and achievements made by the Town of Cavendish in recent years to implement aspects of the Town Plan:

1. Creation of sidewalk inventory, 2011
2. Creation of road sign inventory, 2011
3. Re-Inventory and condition assessment of Cavendish roads, 2014
4. Re-inventory of Cavendish bridges and culverts, 2014
5. Compiled inventories of the public water and sewer systems with mapping overlay, 2013
6. Drafted and adopted a Capital Budget and Program, 2014
7. Drafted and adopted an Aircraft Facilities Ordinance, 2013
8. Establishment of a Cavendish PACE District
9. Construction of a 148 kW photovoltaic system to benefit Town of Cavendish facilities within the GMP service area, 2014

   Installation of heat exchange pumps for heating/cooling of the town offices
10. LED replacements for all municipal street lights in Cavendish village, 2014
11. Energy audits followed by building energy efficiency improvements to town offices, highway garage and wastewater treatment plant, 2011-2112
12. Sidewalk improvements in Proctorsville, 2009
13. Drafted and adopted a Dangerous and/or Derelict Building Ordinance ,2012
14. Drafted and adopted an Ordinance Restricting Through Truck Traffic on Depot Street and Reduced Weight Limit on THB #58, 2008

15. Replaced approximately ½ of all town highway culverts and several bridges after Tropical Storm Irene
16. Invested about $3 million to improve the water system within the last ten years
17. Instituted zero-sort recycling, 2013
18. Professional, specialized engineering energy audit for wastewater system operations, 2014
19. Reclamation and repaving of 1.14 miles of Twenty Mile Stream Road, 2013
20. Adoption of Cavendish Flood Hazard Regulations with special consideration of Tropical Storm Irene experiences.
21. Updating of Cavendish Municipal Water System By-laws, 2014-2015.
22. Sought, received and utilized an Ecosystem Restoration Program grant to obtain real property and conservation easements in critical flood hazard areas for the purpose of enhancing flood resiliency, 2013-2015
23. Enjoined with Route 100 Scenic Byway program in order to establish a link between the Cavendish Designated Scenic Highway portion of VT Route 131 to the new VT Route 100 Byway
24. Applied for, received and maintained Designated Village Center status for both Proctorsville and Cavendish village areas
25. Revised Town Highway Construction Specifications (Most recent revision March 2104)
26. Drafted and adopted a revised Purchasing Policy, 2009

Chapter13: Plan Relationship

13.1 How the Town Plan Relates to Development Trends

As discussed in previous chapters, significant population growth is not anticipated for the next 20 years in Cavendish. Therefore, many of the identified public infrastructure needs in this Town Plan are based upon maintaining the existing facilities, such as roadway maintenance, culvert replacements, rebuilding sidewalks, and strategic water and sewer system improvements. The Capital Budget and Program is intended to guide municipal capital expenditures in ways that reduce spikes in the tax rate. In addition, in light of recent trends, this Plan seeks to encourage economic development initiatives in ways that reinforce Village Center revitalization, maintain rural character, and preserve/enhance quality of life.

13.2 How the Town Plan Relates to Other Plans

In order for the Town of Cavendish to achieve its land use planning goals, the Town must evaluate the Town Plan in relation to plans of neighboring towns and the region. Cavendish is bordered by the towns of Ludlow, Reading, Weathersfield, Baltimore, and Chester and is located in the center of the Southern Windsor County Regional Planning Commission's 10-town region. Cavendish is served by the District 2 Environmental Commission, and is primarily located in Vermont Agency of Transportation District 2, with VAOT districts 3 and 4 maintaining portions of certain state highways in Cavendish.13.2.1 Adjacent Municipal Plans

13.2.1 Adjacent Municipal Plans

Cavendish is surrounded by towns which share many similar planning concerns and are faced with varying degrees of development pressure. All of the towns surrounding Cavendish have town plans and zoning ordinances. None of these plans is in conflict with the Cavendish Town Plan. They all call for a generalized land use pattern of traditional community centers surrounded by a rural countryside. In addition, many of the town plans from surrounding communities address issues that relate across town boundaries, such as watershed issues, traffic impacts from Okemo and Killington ski resorts, scenic byways and other multi-jurisdictional planning considerations.

The Town of Reading most recently updated and adopted their Town Plan in January 2015. Reading is located to the north of Cavendish, and has future land use designations that align very closely with Cavendish's desired future land uses as identified in this Town Plan. This includes very compatible rural residential areas along VT Route 106 and Twenty Mile Stream Road in both towns, as well as conservation land areas around the Knapp Ponds area. The remainder of the Reading/Cavendish town boundary is largely comprised of forest future land use category in both towns.

The Town of Weathersfield adopted updates to their Land Use Chapter and associated maps, amending their Town Plan in February 2014. Weathersfield is located to the east of Cavendish. The future land use designations are consistent along this shared boundary, where essentially both communities call for a combined rural working landscape.

The Town of Baltimore last adopted their Town Plan in September 2011. The Baltimore Planning Commission is currently working to update their Town Plan. Baltimore is located southeast of the boundary with Cavendish, which generally follows Hawks Mountain.

Cavendish calls for forest and conservation areas along this boundary, which corresponds to Baltimore's ridgeline/steep slope designation; these designations are similar in effect.

Chester's Town Plan was last adopted in July 2010. In May 2015, the Planning Commission began the process to readopt the Town Plan before it expires, allowing more time to work on updates. Chester's combination of rural and forest future land use designations are compatible with Cavendish's forest designation along their shared town boundary.

Ludlow's 2012 Municipal Development Plan serves both the Town and Village. In May 2015, the Planning Commission prepared a plan amendment. The Town of Ludlow forms nearly the entire western boundary to Cavendish. Both the Ludlow and Cavendish plans address the existing facilities and uses located along their boundary, including Fletcher Fields, Coolidge Substation and Imery's industrial/mining operations. Ludlow's future land use designations along the rest of this boundary is rural, which is compatible with Cavendish's forest designation as it encourages agricultural and forestry activities, maintaining rural character, and discouraging sprawl and strip development.

The Town of Plymouth shares a very small boundary with the northwestern corner of Cavendish. Plymouth has established a future land use category of Rural Residential 10 along the immediate boundary with Cavendish, along with Rural Residential 5 along Chapman Road. This is generally compatible with Cavendish's forest category as the overall effect is to encourage low- to very low-density residential uses and working landscape activities in these areas.

13.2.2 Regional Plan

The purpose of the *Southern Windsor County Regional Plan* is to create a vision for coordinated growth and development in the region in accordance with existing and future needs and resources. It provides broad guidelines for planning, coordination and review of the natural, cultural, social and economic features of the southern Windsor County region. The Regional Plan has a role under Act 250 and Section 248 proceedings. In addition, when asked by the Town of Cavendish, the SWCRPC shall consider approving the Town Plan based on criteria including, but not limited to, compatibility with the *Regional Plan*.

The *2014 Regional Plan* identifies the villages of Proctorsville and Cavendish Village as "Town Centers," which are served by public water and sewer services and supports a high-density mix of uses typical of traditional Vermont community centers. The *Regional Plan* identifies two industrial areas, one located just south of Proctorsville adjacent to VT Route 103 and the other located along the Cavendish/Ludlow town line. The remainder of the land area in Cavendish is identified as either rural/resource future land use categories in the Regional Plan. While the Town Plan is more specific with respect to the delineation of future land use areas, they are similar in that they both relate to the State Planning Goal of maintaining traditional community centers, surrounded by a rural countryside. Both documents designate both village areas as mixed-use areas, where commercial development and high-density residential development should occur first.

The Future Land Use Chapter of the *Regional Plan* also describes Okemo as a Resort and Recreation Area. The *Regional Plan* also anticipates that growth in Ludlow will continue to impact development in Cavendish, in terms of impacts related to job creation, recreational/second homes and seasonal traffic impacts.