Town of Castleton
556 Main St., P.O. Box 727, Castleton, VT 05735

Connecting all Departments (802) 468-5319
Manager x-201
Secretary x-212
Tax Dept x-216
Accounting x-211
Town Clerk x-214
Health Officer x-215
Listing Office x-217
Zoning x-225
Police Chief x-219
Highway Dept. (802) 468-2459
Transfer Station (802) 468-3005
Wastewater Dept (802) 468-5315
Fax – All Depts. (802) 468-5482

RECEIVED
MAY 20 2013
Department of Economic, Housing and Community Development

MEMORANDUM

TO: Director, Dept. of Housing & Community Affairs

FR: John Hale, Chairman Planning Commission

RE: Revised Proposed Amendments to Town Plan

DA: May 10, 2013

The Town of Castleton Planning Commission will hold a Public Hearing to receive public comments and to adopt the proposed Amendments (Version #3) to the current Town Plan.

The hearing will be held on Monday, June 17, 2013 at 6:00 pm at the Castleton Town Offices, 1655 Main Street Castleton.

Changes are proposed to the following areas:

- Introduction and Overview (Page 3)
- Land Use and Growth Goals, Policies & Programs (Page 15)
- Community Facilities and Services (Page 27)
- Energy (Page 37)
- Natural Resources (Page 54)
- Economic Development (Page 74)

Note: Highlighted areas are the updates to the Plan.

Enclosed is a copy of the Town Plan as adopted on 4/23/13 (Version #3)

2010
TOWN OF CASTLETON

TOWN PLAN

VERSION #3 - Adopted by the Planning Commission - April 23, 2013

TABLE OF CONTENTS

INTRODUCTION AND OVERVIEW.....3

HISTORY.....5

COMMUNITY PROFILE.....8

LAND USE AND GROWTH.....12

COMMUNITY FACILITIES AND SERVICES.....16

EDUCATION.....28

ENERGY.....35

NATURAL RESOURCES.....40

HOUSING.....54

RECREATION, HISTORIC AND CULTURAL RESOURCES.....62

TRANSPORTATION.....68

ECONOMIC DEVELOPMENT.....74

IMPLEMENTATION PROGRAM.....79

ACKNOWLEDGEMENTS.....81

DRAFT

INTRODUCTION AND OVERVIEW

Purpose

The Castleton Town Plan is a framework and guide for reaching community goals. It also attempts to balance the wide range of competing interests and demands found in the town, to coordinate the pattern of development, the use of important natural resources and to address both current and long-term needs. The policies and programs stated within this comprehensive plan were developed to preserve and protect the town's assets while providing a future vision for town officials, businesses, and citizens of Castleton.

The Plan should be used in a variety of ways. First and foremost, the Plan should be a basis for community programs and decision-making. For example, it should influence the town's budget and capital expenditures, community development efforts, and natural resource protection initiatives. As required by law, it should also serve as a foundation for local land use controls such as zoning, subdivision, and health regulations. Furthermore, the Plan should be given full effect in all appropriate regulatory proceedings, such as Act 250, and Title 30, Section 248.

Because it is not able to address every important local issue fully, the Plan should also be looked at as a source of topics for further study. Some aspects of the Plan are based on limited evaluations or on evaluations that are periodically updated. Finally, the Plan should be used as a source of local information that can be valuable to citizens, businesses, students and members of local boards and commissions.

The Planning Commission objective in the 2012 Amendment is to clarify and amplify the existing Castleton Town Plan with regard to the development of ridgelines in Castleton, eliminating any contradiction and all ambiguity on the subject. We want the Town Plan to clearly express what the community knows intuitively and has known intuitively since we settled in this area, that our unspoiled mountains are a community asset of inestimable value.

Statutory Authority and Requirements

The Castleton Town Plan is an integral part of the regional and statewide planning process. In adopting the Town Plan, citizens of Castleton may anticipate the future with the knowledge that a significant step has been taken in the development and preservation of their community.

Town Plan preparation is guided by the Vermont Municipal and Regional Planning and Development Act (Title 24, Chapter 117 §4382 of Vermont Statutes Annotated). This section of law specifies not only what a Plan may or must contain, it also specifies how a Plan must be adopted. The Castleton Town Plan was prepared in conformance with all of the requirements in the Vermont Statutes.

In addition to containing all the required elements, in order to be approved by the Rutland Regional Planning Commission (RRPC), plans must also be consistent with a series of statutory goals listed in 24 VSA 4302. In terms of its significance in relation to State land use controls and growth policy, the Plan plays a key role. Vermont's Act 250 includes a provision for a review procedure through which all applications for a subdivision and development must pass. The ninth criterion requires that any subdivision or development must be in conformance with a duly adopted development plan, land

use or land compatibility plan. The tenth criterion insures that the proposed development is in conformance with the policies set forth in the regional plan and the more detailed town plan.

Public Participation and Preparation of the Castleton Town Plan

Planning for the future is a continuing activity and should reflect new data, laws, technologies, planning concepts, and the changing needs and desires of the community. The Castleton Planning Commission has responsibility for the preparation of the Town Plan. The Plan must be updated and readopted on a five-year basis according to Vermont State Statues.

Work began on the current update in January, 2008. In the course of developing the Plan, the Castleton Planning Commission and Town contracted for technical assistance with the Rutland Regional Planning Commission. The Planning Commission held two public forums in 2009, which were coordinated by the Rutland Regional Planning Commission, in order to obtain input from the public on various aspects of the Town Plan. The information received from the attendees was compiled by the RRPC and then presented to the commission for review and action. The plan was updated to reflect those inputs and commission members then began a detailed review of existing Goals, Policies and Programs within each section of the Plan followed by a thorough review of the wording in each section. This work was undertaken to ensure that the updated Plan contained only information relevant to the current planning cycle. The final draft Castleton Plan was completed in April 2010.

A downloadable draft of the Castleton Town Plan will be available in "pdf" or Adobe Acrobat format on the Rutland Regional Planning Commission website (www.rutlandrpc.org) as well as prior to the public hearings on the approval of the Plan.

Regional Coordination

This plan recognizes that Castleton does not exist in isolation from the region and will be affected by what happens in the surrounding municipalities. The relationship between this plan and the development trends and plans for the surrounding area and the *Rutland Regional Plan* has been considered. For purposes of this Plan, the surrounding area includes the Towns of Fair Haven, Benson, Hubbardton, West Rutland, Ira, Poultney and Pittsford.

Review of the land use plans of surrounding communities suggests that the future land use pattern promoted by this Plan is generally compatible with our neighbors. Surrounding communities promote low-density land development and continuation of resource-based uses (such as agriculture) in outlying areas and higher density and commercial uses in existing built-up areas. Sensitive areas (such as flood plains) are also identified and targeted for conservation, as they are in Castleton.

The award-winning Rutland Regional Plan was completed in 2008

HISTORY OF CASTLETON

Castleton shares a birth time and circumstance with a number of other towns and it shares the impacts of trends and developments important to Vermont and the United States. Castleton's people dote on its history as they deal with its future. Its history is a case study of change, why it has occurred and what it has meant.

The brick Congregational Church on Main St. was built in 1836 combining a Greek Revival Temple form with Gothic Revival style pointed arch widows and doorway. This was an early use of both these architectural styles in Vermont.

From the first Census of 1791, until the one in 1870, each decade witnessed population growth in agriculture, business and industry. Probably because of the post-Civil War economic decline and the severe depression that began in 1873, the town went into a gradual period of decline in population and economic activity. This continued until the town began to mirror the new prosperity of the post-World War II Era in 1950. Growth and development have continued to the present.

Evidence of another kind of change, land use, can easily be found in the town's land owning and tax records. Abundant archeological remains can be found in almost every corner of the town. The second-growth forests are full of cellar holes, stonewalls, old fashioned apple trees, antique rose bushes, lilacs as well as family and farm debris. The growth and development of farms, as well as their struggle, decline and conversion to industrial, recreational and residential uses is another example of change.

Fire caused major changes in the business parts of Castleton Village, Castleton Corners and Hydeville. Demolition, recycling, remodeling, and moving buildings have also promoted visible changes. Cookville has vanished. Two of the hotels on the lake burned and the last three were demolished in the early 1970s. Two of the public beaches are gone and Crystal Beach has been drastically changed.

Castleton's hills roll back, both north and south, from their westerly flowing Castleton River and east and west from the shores of Lake Bomoseen. In some cases there is very little level or easy rolling land before the hills become quite steep. Regardless of the steepness, those hills were more often than not cleared. The timber provided lumber for building, the most level land was used for cropland, and the hills provided pasturage. The Castleton River and such tributaries as North Britain

Brook, Succor or Pencil Mill Brook, and the outlets of Lake Bomoseen and Glen Lake provided waterpower sites, which began to be developed early in the town's history. Sawmills, marble mills, slate mills and other kinds of uses became common.

Lake Bomoseen has been put to many uses over the years. There was some commercial fishing, in addition to sport and subsistence fishing year-round. As the timber was cut from its hilly shores, logs were rolled onto the ice in winter and floated to the mills in Hydeville after the lake thawed. Every dairy farmer, local stores, hotels and other businesses all had icehouses, which had to be filled each winter. Ice was cut, transported and stored by farmers as a way of supplementing their winter incomes. The lake was also used to transport slate by barge from West Castleton to the Hydeville Mills and to a rail spur, which ran east of the Channel.

The most dramatic change on Lake Bomoseen came shortly after the Civil War when it began to be developed as a summer recreation and vacation site. Guests, who arrived by train in either Castleton Village or Hydeville, were frequently transported up the lake to their hotels by steamboat. At one time six hotels were built on the shores of the lake. These were supplemented by expanded farmhouses and picnic houses, which took guests. Early in the Twentieth Century the Rutland Street Railway, Light and Power Company built its trolley park, which made the lake Rutland's playground. The coming of the automobile brought a major resort and three public beaches, which were crowded on summer Sundays. An increasing number of summer cottages and cottage communities have been built since the end of the nineteenth century.

Community Centers of Life

People settled in Castleton where they found land that was suitable to their purposes and where other conditions suited their needs. They tended to group in villages along the Castleton River, from Castleton Village in the east, west through Castleton Corners to Hydeville. The road, railroad and trolley followed the valley west. As the valley land was settled people moved out into the rolling hills. Those in the outlying areas were grouped according to school districts. There were twelve of these at first. Each district had to support its own school until the state mandated town districts.

Each of the villages was a recognizable community, although none in the Town of Castleton was ever incorporated into a separate government unit. Each of the villages had a store and school, which tended to be the focus of community life. Castleton Village had four churches and Hydeville had two. Blacksmiths and other craftsmen worked and served the larger villages. Each, too, had a variety of commercial activities. Sometimes, as in Castleton Village, there were specialty stores such as drugs and meats. Each community had a post office. The three larger villages along the River had one or more hotels or inns. At first these were to accommodate travelers, but more and more they were operated in greater number to serve vacationers. Professional services tended to be grouped in the largest of the villages, Castleton. Here one could find lawyers, doctors and, for a time, a newspaper and bank.

The three River Valley villages experienced significant change as the result of transportation developments. Castleton Corners was where two stage lines intersected, presently Routes 4A and 30. The railroad had stations in Castleton and Hydeville. In Hydeville, the station was closer to the center of the village and it certainly stimulated businesses and the slate mills in the area. Passenger service was important. It made it possible for people to go to either Fair Haven or Rutland. High

school students who went to Fair Haven, West Rutland or Mount St. Joseph traveled by train, trolley and later by bus.

The villages in the slate belt, Blissville, Cookville and West Castleton were temporary. Their fate was tied to the slate industry, which seemed to peak in the late 1800's and then decline. The West Castleton operation ended with the beginning of the Great Depression. Some of the other quarries and mills, smaller operations, lasted into the 1950's. A resurgence in this industry has occurred over the last twenty-five years.

Education was important to all parts of the town. The Village of Castleton had the good fortune of being the site of several non-town, educational developments. They helped to publicize the village and brought money and investment to it. The first of these was the Rutland County Grammar School, a private secondary school for the County. The State of Vermont granted it land in Rutland County towns chartered after Vermont had achieved Statehood. The second important educational development came with the founding and opening of Castleton Medical College in 1818. It had made its mark on the medical profession by the time it closed in 1862. The main part of the building was given to and moved to the Castleton Normal School. The Seminary, then Normal School and Castleton State Teachers College, now Castleton State College, has grown considerably since the early 1960's. Today, it is the largest employer in town.

The town is dynamic. Changes are continuing to occur. Managing change is our challenge.

Map of Central Vermont.

Castleton is located in the western part of Rutland County, within the Taconic Mountain Range. The landscape is characterized by rolling and rugged mountains with elevations approaching 2,200 feet

COMMUNITY PROFILE

The Town of Castleton is the second largest community in Rutland County. The estimated population of 4,618, in 2008, ranked it behind only Rutland City and marked a new population peak for Castleton. Castleton has a land area of 39 square miles and is located in the western part of the county. The town is situated on the western slopes of the Taconic Mountain Range at an approximate elevation of 450 feet.

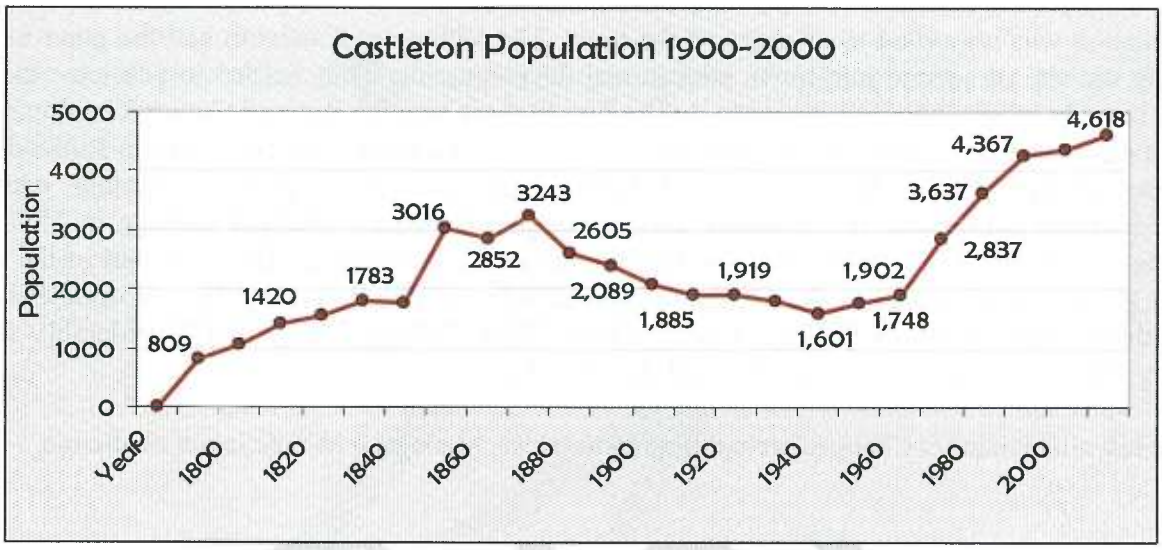


Figure 1: Town of Castleton Population **Source:** 2000 US Census & Vermont Indicators Online

After 30 years of sharp growth from 1960 to 1990, during which time the Town's population more than doubled, Castleton's population growth has generally leveled off since. After successive decades of 50, 28, and 17 percent growth, the Town's population grew by only nine percent between 1990 and 2008.

Age Distribution

The Age Distribution in Castleton over the past 30 years reflects two population trends. The more dramatic of the two trends is the continued aging of the Baby Boom population. In 1990, the majority of the Baby Boomers were between 25 and 44 years of age. A decade later, most of them were between 35 and 54 years of age. Figure 2 shows dramatic changes in the proportion of Castleton residents reflecting this population group. The second trend is a more general increase in the proportion of residents over 55 years of age. In 2000 they represented 20.2 percent of the population, up from 17.2 percent in 1990, and 16.0 percent in 1980. Figure 2 also shows a marked increase in the proportion of people in the older age groups from 1990 to 2000 and a drop in the proportion of people between 15 and 34 years of age.

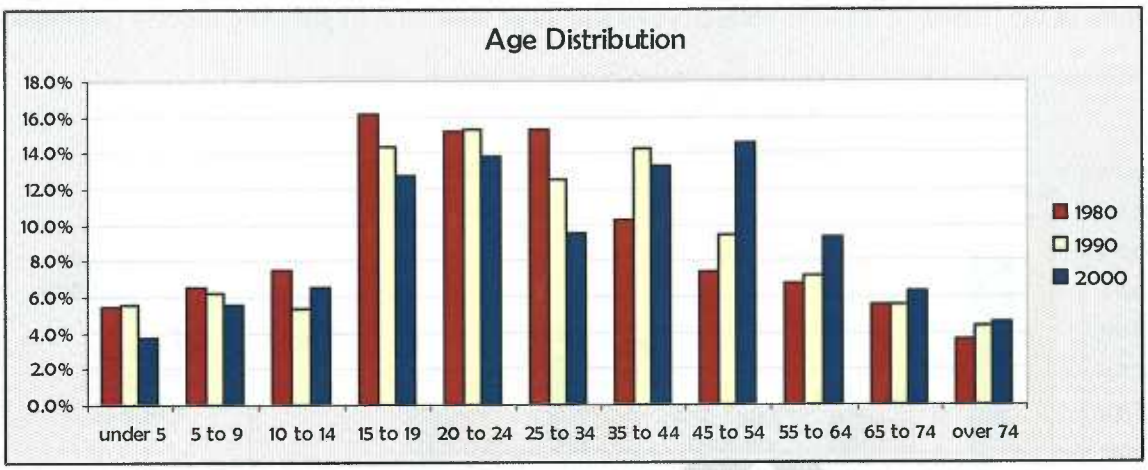


Figure 2: Age Distribution **Source**: 2000 US Census

Race and Ancestry

As was the case throughout most of Rutland County and Vermont, the overwhelming proportion of Castleton residents listed themselves as white in the 2000 Census. Of the 4,618 residents in the Town, 97.3 percent were white. Hispanic and Latino residents made up the next largest group with 1.1 percent of the population. Residents of Asian, Native American/Native Alaskan, Black/African American and Pacific Island descent made up the remainder of the population.

The most prominent ancestries include: Irish (14.9%), English (11.5%), French (11.3%), Italian (6.8%), German (6.3%) and American (4.6%).

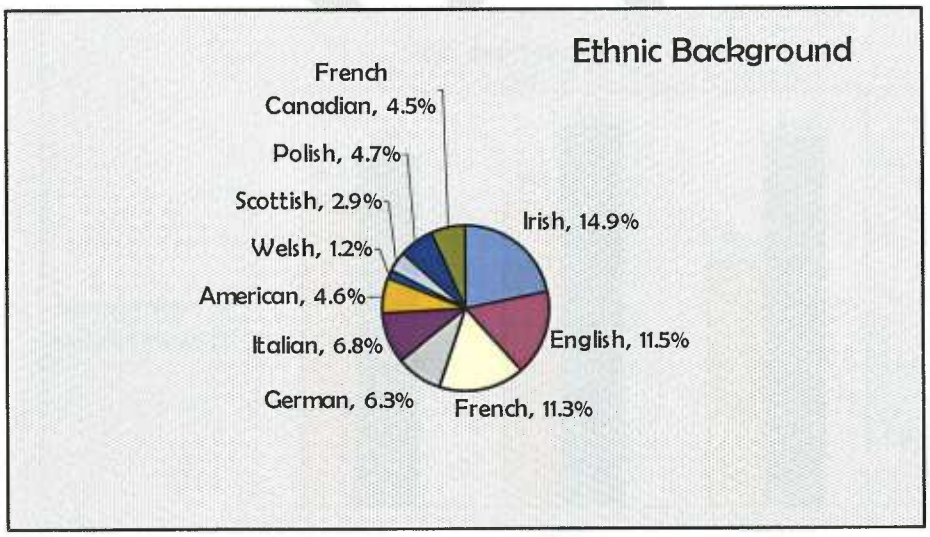


Figure 3:
Ethnic Background

Source:
2000 US Census

Households and Income

Married couples represent the largest proportion of householders, or primary residents of a home, in Castleton. In 2000, they accounted for 52.8 percent of all households, a drop from 58.9 percent in 1990. Residents living alone account for a larger proportion of the households in Castleton than

elsewhere in the region, a statistic reflective of the large student and growing elderly population.

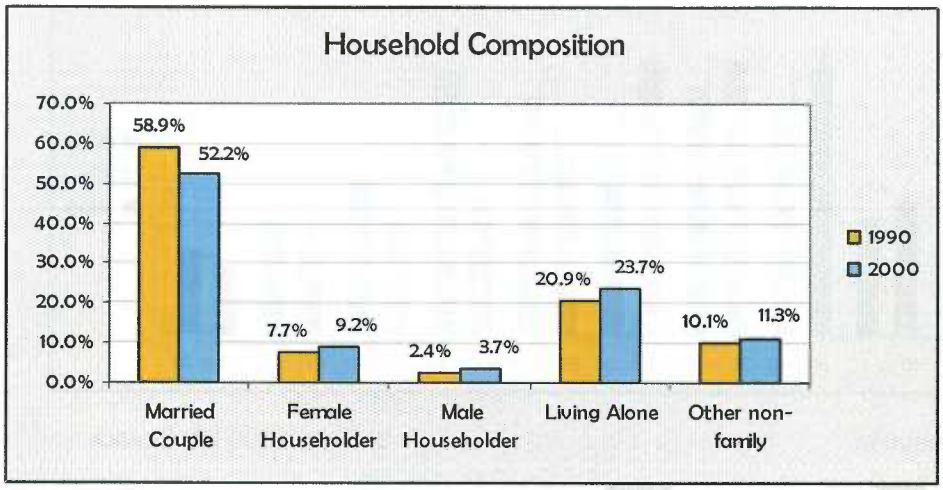


Figure 4: Household Composition

Source: 2000 US Census

Two-person households continued to grow in Castleton in the 1990s. Whereas in 1980 they accounted for 30 percent of the total, in 2000, they had risen to 37.5 percent. Meanwhile, the proportion and number of larger households (especially with four or five residents) has dropped dramatically.

The average number of residents per household in Castleton has shifted unusually in the past twenty years. Whereas there has been a national trend towards fewer persons per household, in Castleton, those figures are inconsistent. Among owner-occupied units, the average number of persons per unit increased in the 1980s, but then decreased to below the state and national averages in the 1990s.

Figure 5: Household Size

Source: 2000 US Census

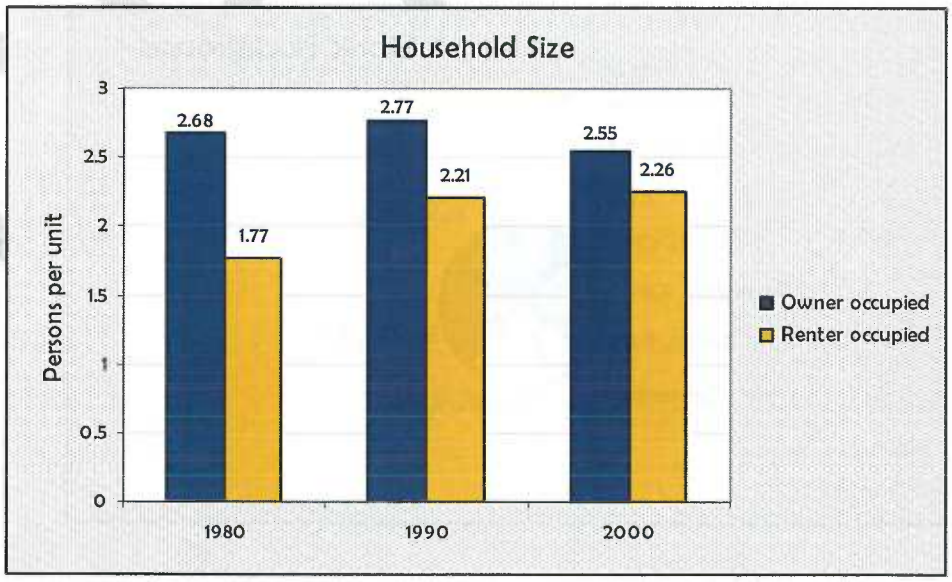


Figure 6 illustrates the year householders of owner-occupied units moved into their homes in the Town of Castleton. The chart shows that new residents are moving into the town at an increasing rate.

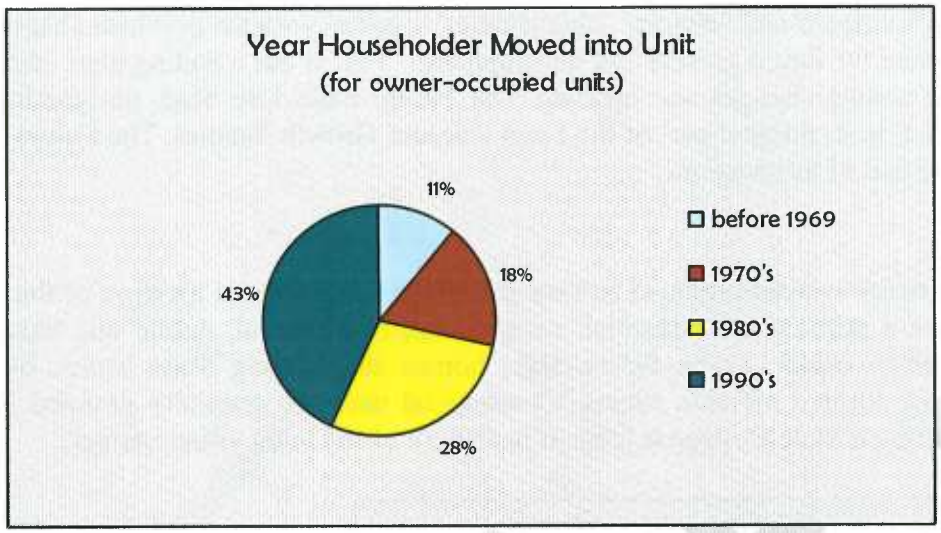


Figure 6: Year Householder Moved into Unit

Source: University of Vermont; VT Housing Finance Agency

The Median Household Income (MHI) in 2008 for the Town of Castleton was $50,561; higher than the Rutland County level of $46,858, but slightly below the State of Vermont level of $52,104. In 2000, the Town of Castleton MHI was $39,615; and in 1990 the MHI was $30,255. In eighteen years the MHI has increased 60%.

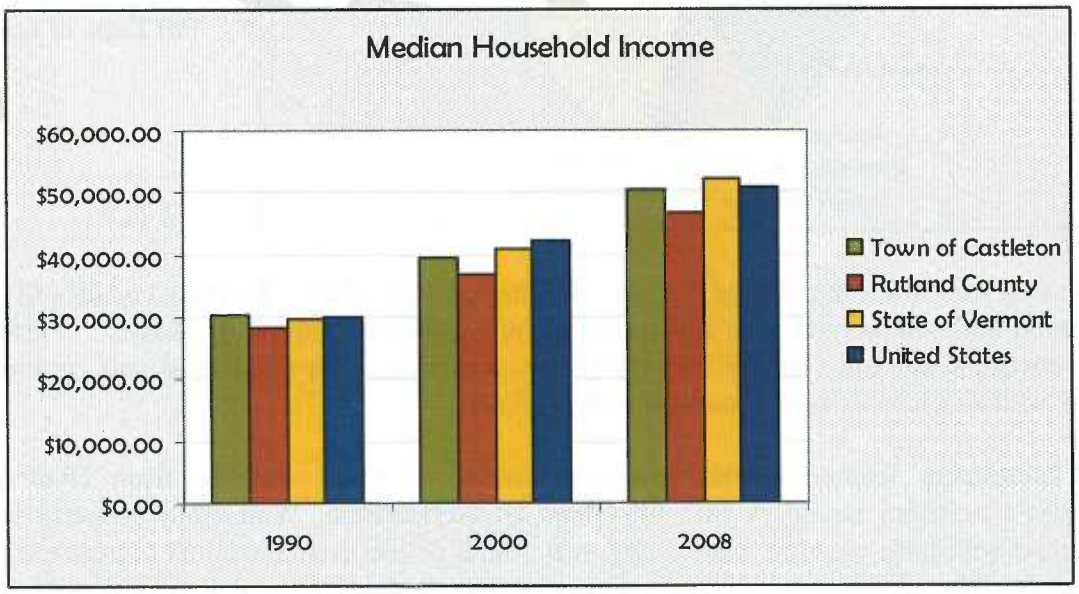


Figure 7: Median Household Income **Source:** 2000 US Census & VT Indicators Online

LAND USE AND GROWTH

As new development opportunities present themselves, the Town of Castleton must balance preservation of its community and character with support of opportunities for economic growth in order to sustain the town's citizens and services. This chapter, together with the previous chapters of this plan, provides guidance for future growth and development. This is not a zoning plan, although it provides guidance for zoning changes and updates. The Future Land Use Map, designating the boundaries of each district, is an integral part of the Land Use and Growth Section. The Future Land Use Map is located at the end of this section.

Existing Conditions

Castleton Village is the major concentration of settlement within the town and location of the town offices. The Village has a mixture of residential, commercial, institutional, public and industrial uses forming a small urban center. Large federal-style homes stand along Main Street, but the majority of residences are located off side streets. Commercial uses are generally grouped in the center of the village. Castleton State College is located just south of the main village center.

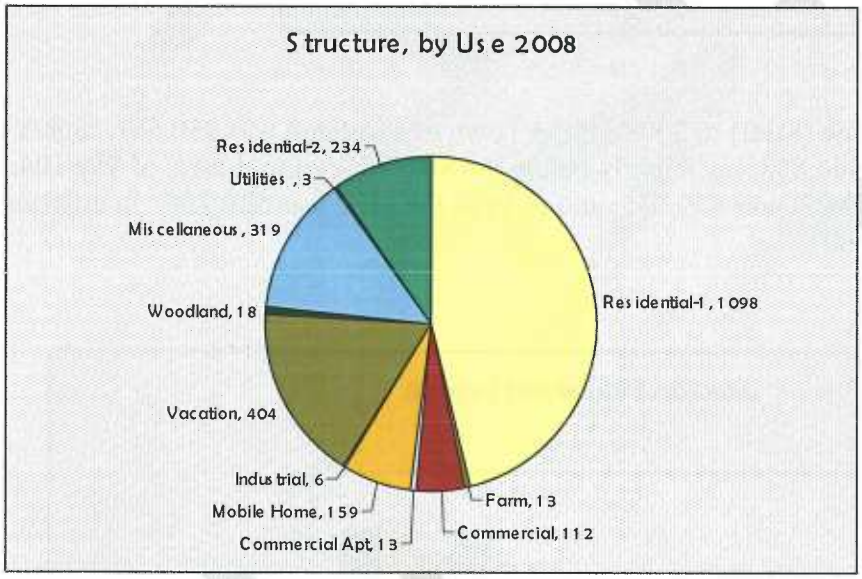


Figure 8:
Structure by Use

Source:
2000 US Census;
VT Dept. of Taxes

Continuing west from the village, the area leading up to Castleton Corners consists of a mixture of residential and commercial uses and includes the Castleton Community Center. Further west, the area between Castleton Corners and Hydeville, continues with residential and commercial mixed uses as well as a tract of land zoned for industrial use.

Lake Bomoseen, located in the northwest corner of town, extends from Hydeville through Castleton's northern boundary into the Town of Hubbardton. Waterfront property is intensively developed with both seasonal homes and year round residences as well as recreational/commercial businesses. The western shore has a few stretches that remain in a natural state. Residential development occurs throughout the remainder of Castleton.

The upland hills and mountains remain undeveloped due to their inaccessibility by town roads and

the limiting influence of steep slopes and shallow soils. These areas are forested with trees of the northern hardwood association.

Castleton has several extensive land areas that are publicly owned. Lands under the jurisdiction of the state are Love's Marsh and Blueberry Hill Wildlife Management Areas, which are managed by the Fish and Game Department. Bomoseen State Park, located in West Castleton includes a large portion of Glen Lake. Part of the park also fronts on the Lake Bomoseen and is under the management of the Department of Forests and Parks. The Town of Castleton owns a town forest and short segment of shoreline in the Crystal Beach area, and a parcel on Sand Hill road that was donated by the college.

Land Use Districts

The Land Use Districts, defined in the following paragraphs, are a guide for the growth and development of the Town of Castleton. The nine land use districts in Castleton are: Residential 20,000 sq. ft., Residential 40,000 sq. ft., Rural Residential 2 acre, Rural Residential 5 acre, Village Commercial, Recreation/Commercial, Industrial, Water Source Protection and Flood Hazard. These land use areas provide for a variety of residential, commercial, and recreational opportunities for the future while considering local environmental constraints as well as existing land use patterns. Castleton encourages planned growth and concentrated development in those areas of the town which provide for higher density and which can provide the necessary infrastructure to more readily support development than more rural sections of town.

Residential 20,000 Sq. Ft.

The Residential 20,000 sq. ft. district in Castleton is essentially the Castleton Village area described above. This area is built-out and contains the vast majority of Castleton's historic structures, municipal service buildings, and cultural amenities. Should additional land become available for development in the future through the acquisition of privately held parcels, changes in state land use regulations, or through other means, the residential 20,000 sq. ft. district's compact development pattern and municipal infrastructure make it among the most suitable areas for future development.

Residential 40,000 Sq. Ft.

The residential 40,000 sq. ft. district includes nearly the entire shoreline of Lake Bomoseen as well as a contiguous tract of land south of Hydeville and Castleton Corners and a smaller area east of Route 30 south of the Corners. While doubling the minimum lot size of the Castleton Village area, the 40,000 sq. ft. district does promote development of moderate density suitable to these areas close proximity to commercial enterprises and transportation corridors of moderate to heavy traffic.

Rural Residential 2 Acre

The rural residential 2 acre district includes the vast majority of land in Castleton. The two-acre minimum residential lot size is a common standard used in many towns in rural Vermont. This area is appropriate for semi-rural to rural private residences.

Rural Residential 5 Acre

The rural residential 5 acre district, located in Castleton's north-east border region, is intended to provide land area for low-density residential development, farming, forestry, recreation and other rural land uses. Growth should be managed and consistent with the rural character of the area and

site conditions. Despite the limitations on clustered development, conservation of open space and natural resources should be a high priority to maintain Castleton's rural atmosphere.

Village / Commercial District

The purpose of the Village Commercial District is to allow commercial enterprises of a scale that will blend well with existing residences and complement the "village" atmosphere preferred by Castleton's residents. All commercial uses in this district are to have adequate parking, suitable landscaping, screening, lighting, and signage and be designed to minimize traffic impacts in order to protect the character of the neighborhood.

Castleton Main Street looking east, in the Village/Commercial District.

Recreation/Commercial District

The recreation / commercial district is intended to promote a mixture of entertainment related commercial enterprises located in popular public recreation areas along the lakeshore. The primary recreation / commercial district is located on the lake's eastern shore adjacent to the popular Crystal Beach area with a smaller parcel designated at the extreme southwest shore. These areas are heavily trafficked during the peak summer months and are intended to be appealing areas for seasonal visitors and year round residents alike.

Industrial District

Castleton has designated industrial districts in the north-east quadrant of interchange 5 off of U.S. Route 4, south of Castleton State College, just south of Route 4A between Castleton Corners and Hydeville, and along the eastern side of Route 30 south of the Corners area. While recent efforts at attracting additional industrial activity to Castleton have been unsuccessful, as noted in the Economic Development section of this Plan, there are several industrial enterprises that have operated in Castleton for quite some time.

Castleton State College

The largest employer in town and situated within walking distance to the village area, the College has 22 buildings on 165 acres of land and provides housing for approximately 1,000 students. In 2009 the College completed a new sports stadium and upgraded its student center. Other construction activities have included additional student housing and expansion of the existing athletic complex. The College recently donated a parcel of land on Sand Hill to the town, which is currently studying how best to use this gift. The town and College have continually worked together to address the issues that exist whenever expansion is contemplated.

LAND USE AND GROWTH GOALS, POLICIES AND PROGRAMS

Goal

Provide for development that fits the character of existing development, functions in an efficient and coordinated fashion and supports the vitality of the community.

Rationale

The proposed land use patterns in this section are the basis for a preferred pattern of development. Proposed land use patterns are intended to accommodate future growth in harmony with the natural capabilities of the land and the ability of the town to adequately provide municipal services. Castleton's scenic and natural resources are among the town's primary assets. The unspoiled mountain peaks and ridgelines are a community asset of inestimable value: dollars and cents value to the town's economic enterprise, and emotional value to each Castleton citizen's sense of place, our home. Future land use and development should proceed in such a way that these assets are protected and enhanced while establishing a built environment that is both functional and aesthetically pleasing.

Policy 1

Maintain a sound land use policy to regulate, preserve and encourage further growth and development.

Programs

- Restrict development in areas of severe limitations for septic systems unless they can be overcome through proper engineering and design.
- Adopt regulations for ridgeline development, shoreland, groundwater recharge areas and other identified natural areas to carefully regulate development in these areas.
- Generally restrict development on slopes in excess of 25% in grade.

Policy 2

Encourage orderly and attractive development of commercial uses.

Programs

- Discourage strip development.
- Create additional industrial zones.
- Encourage Bed and Breakfast establishments around the college, on Main Street and around Lake Bomoseen where there is an existing sewer line.

Policy 3

Maintain and protect the quality and character of historic settlement patterns.

Programs

- Study the feasibility of establishing design control districts to protect historic structures, particularly in the village area.
- Encourage future residential development to be concentrated where community facilities and services are currently provided.

- Establish a Zoning Ordinance section to regulate outdoor advertising through uniform sign codes.

- Channel non-residential growth into existing growth areas and areas serviced by sewer and/or water.
- Continue to require site plan review of all commercial development proposals to encourage the sound design, orderly maintenance and establishment of infrastructure responsibility.
- Encourage the preservation and renovation of existing housing stock.

Policy 4

Preserve agriculture, scenic resources and open space.

Programs

- Inventory significant scenic resources and open space.
- Contact area land trusts for assistance in inventorying landowners' interest in preserving scenic resources and open spaces.
- Provide economic incentives for those property owners keeping land in agricultural uses or maintaining open space uses.
- Ensure future development provides for adequate streets, utilities and open space and the preservation of the character of surrounding properties.
- Support use-value taxation, cluster subdivision techniques and other methods of conserving agricultural land and open space.
- Encourage the inclusion of greenbelts and common land areas in subdivision design.

Ariel View of Lake Bomoseen

COMMUNITY FACILITIES AND SERVICES

Community facilities and services are provided by the municipality for the health, benefit, safety, and enjoyment of the general public. High quality services and facilities such as schools, highway maintenance, police and fire protection, solid waste disposal, and town government administration have a significant effect on the local quality of life as well as the community's ability to

accommodate development and grow in an orderly and appropriate manner. Careful planning is essential for community facilities and services in order to meet local health, safety, and welfare needs and community goals for future growth. If the facilities are at capacity, further development may strain them, causing financial burdens and environmental problems. The Castleton Town Plan shall promote and encourage the development of an integrated and efficient utilities infrastructure system to provide the services required by both commercial users and residents.

Local Government Organizational Structure - In Accordance with State Statues

Elected Positions:

The **Select Board** is comprised of five members, three having three year terms and two having one year terms. Each year at town meeting a total of three board members are elected. The Board's authority extends to the general supervision of the affairs of the town. They must perform all duties required of towns and town school districts not committed by law to the care of any particular officer such as the Town Manager.

The **Town Clerk** is elected for a three year term. The Clerk maintains all land and vital records required to be kept in the town clerk's office, presides over elections, works with the Listers on the grand list and tax appeals, administers oaths, and is an ex-officio notary public.

Justices of the Peace are elected annually. Their duties include administering oaths, solemnizing marriages, and, serving as members of the Board of Civil Authority.

The **Board of Civil Authority** comprised of the Select Board, Town Clerk, and the elected Justices of the Peace is responsible for determining voter eligibility, checklist maintenance, delivering and counting ballots, and hearing property tax appeals.

Three **Listers**, are elected to overlapping three-year terms. They are responsible for determining the value of the real and personal property in town.

The **Town Treasurer** is elected for a three-year term The Treasurer pays all orders drawn by the Select Board, credits the general, highway and school funds as taxes are received and keeps accounts of the money, bonds, notes and evidences of debt paid and of monies paid out.

The **Board of Tax Abatement** consists of the members of the Board of Civil Authority, the Listers and the Treasurer. This board may abate taxes, interest and collection fees in certain cases.

The **Town Agent** is an elected position responsible for hiring an attorney when necessary to defend or pursue litigation involving the town or town school district. Duties are limited to civil matters and criminal matters brought against the local government.

A **Grand Juror** is elected annually and is responsible for criminal matters: prosecuting all violations of town ordinances, rules and regulations, or insuring they are prosecuted by the state's attorney's office.

The **First Constable** and **Second Constable** have authority to arrest, and powers of search and seizure within the town. They may also serve civil or criminal process; destroy unlicensed dogs; assist the health officer; and remove disorderly people from town meeting. Terms are two-years and are staggered.

The **Town Moderator** is elected annually and is responsible for the conduct of the Town Meeting.

School Directors administer the school district. There are five directors: two for three-year terms and three for one-year terms, staggered so that three are elected each year. They expend funds appropriated by the voters and take any action, which is required for the sound administration of the school district.

Trustees of Public Funds invest and prepare the accounting of public funds.

Library Trustees are elected officials who manage public library property.

Appointed Positions:

Castleton has adopted the **Town Manager** form of government. State statutes give general supervisory powers over the affairs of the town to the Manager who is considered the administrative head of all departments of town government. Specifically, it is the Manager's duty to perform all functions required of the town and town school district not committed to the care of any particular officer, and to assist the Select Board in all matters reserved for their sole authority, as well as perform all other duties conferred by law on the Select Board

The Manager performs all of the Select Board's duties except preparing tax bills, signing orders, calling town meetings, laying out highway or parks, making assessments, awarding damages, being a member of the Board of Civil Authority, filling vacancies, but shall assist the Select Board in these matters.

Two of the five **Planning Commissioners** are appointed to three-year terms while the other three are appointed to a one-year term. Their duties include the preparation of the municipal town plan and bylaws for recommendation to the Select Board.

The Planning Commission appoints, with the approval of the Select Board, a **Zoning Administrator** to administer the bylaws.

A five-member **Development Review Board** is appointed to hear appeals of the Zoning Administrator and to grant variances and conditional use applications.

The Town appoints **Dog Wardens** for animal control.

An **Emergency Management Director** is appointed to coordinate disaster-planning efforts.

The local **Health Officer** is appointed by the **State Commissioner of Health** after receiving a recommendation from the local legislative body for appointment of a three-year term. The local Health Officer and the Select Board constitute the local **Health Board**, which has jurisdiction over

conditions that create a risk to the public health as a result of sewage disposal and treatment or effects on the water supply.

The **Deputy Health Officer** addresses state and local health regulations regarding housing codes, disease control and animal bites.

Other appointed officials with self-explanatory titles include the **Fire Chief, Forest Fire Warden, Highway Foreman, Librarians, Police Chief, Recreation Commissioners, Tree Warden, Waste Water Treatment Plant Supervisor, Representative and Alternate to Rutland County Solid Waste District; Representative and Alternate to Rutland Regional Planning Commission and Town Service Officer**

Castleton Town Office

The Castleton Town Office, located on Main Street, is a two-story building built in segments between 1814-1834. The office houses the Town Manager, Town Clerk, Treasurer, Zoning Administrator, Listers, Health Officer, Tax Collector, and Police Department.

Castleton's distinctive town office is a prominent feature of the Village Historic District.

Castleton Free Library

The Castleton Free Library, a two story building located on Maine Street, was established in 1897 by a group of interested citizens; it was incorporated in 1916. According to state law each public library in Vermont must have a board of trustees to develop policy and guide its operation. Trustees' responsibilities are to establish and manage library policy and keep library services responsive to the changing needs of the citizens. In addition, trustees hire and evaluate the librarians, manage the library's finances and act in keeping with Vermont State law and the American Library Association's Code of Ethics. Finally, long range planning and serving the library as community liaisons are important duties of each trustee.

The Castleton Free Library currently has a five-member board of trustees, a Library Director (also serving as the children's librarian), a librarian in charge of the adult collection, and about 10 dedicated volunteers without whom the library would be unable to provide the high quality service that it does. The Castleton State College Library is also available to Castleton residents.

The Castleton Free Library on Main Street

Post Offices

There are three post offices within town boundaries serving Castleton residents: The Castleton Post Office, Bomoseen Post Office and Hydeville Post Office.

Castleton Post Office

The Castleton Post Office is located at 576 Main Street next to the Town Offices. As of this writing the office had no plans for expansion or relocation.

Bomoseen Post Office

The Bomoseen Post Office is located at 63 Route 4A West in the Castleton Four Corners area. The office has no plans for expansion or relocation in the foreseeable future.

Hydeville Post Office

The Hydeville Post Office is located at 912 Route 4A West. The office building was renovated in 1998/99 and there are currently no plans for expansion or relocation of the facility.

Senior Citizens

Castleton Community Seniors Inc. (CCS) is a very active group that organizes a wide variety of activities and events year-round for people of all ages. Formed in 1998, one of the group's primary activities has been the development of a community center at the Historic Old Homestead building. A gift from the Alma Gibbs Donchian Foundation, the Castleton Community Center is located on Route 4A between Castleton Village and the Castleton Four Corners area.

CCS currently provides programs and services that include an Elderly and Disabled transportation program providing over 5,000 rides a year, a senior meal program serving over 2,100 meals annually and a wide variety of health related programs for seniors including; osteoporosis prevention, tai chi and yoga, chronic disease self-management and falls prevention. The fall of 2005 saw the completion of a walking trail offering area residents of all ages a 1/3 mile packed surface, suitable for wheel chairs, and providing an outdoor exercise option for those with limited physical mobility.

In March of 2009, CCs completed the renovation of a c.1905 barn into a 1200 sw. ft. Wellness

Center providing much needed additional space for classes, workshops and programs to encourage healthy living. Educational programs are offered in a wide range of subjects including; personal safety issues, legislative concerns, financial issues, the arts and computer literacy. The Wellness Center project was funded through donations from members, local businesses and individuals, special events, grants and a community facility loan. The Castleton Community Center was chosen by the Vermont Department of Aging and Independent Living as the site for the Governor's 2009 proclamation of Older American's Month.

Castleton's seniors, indeed the entire Castleton community, are fortunate to have such an active and energetic group working to maintain the health and vitality of the town.

A private residence for many years, Castleton's renovated Old Homestead Community Center is a valuable asset for the use of all Castleton residents.

Child Care

The availability of child care for our residents is a big factor related to the affordability of living in Castleton. Approximately 9% of the female headed households with children under fifteen years of age comprised approximately 16% of the population, according to the 2000 Census figures. Of those under fifteen, 10% were under the age of ten and 5% were under the age of five.

With the growing need for more than one income per family, parents of young children need to have safe, accessible, and affordable child care options; otherwise, choices have to be made between earning a living or raising a family. There are currently 10 registered and two licensed day cares on record for the town of Castleton. Childcare information for Castleton is available on-line from the Vermont Department of Children and Families.

While the benefit of affordable child care is widely acknowledged as a boost for the economy and workforce, it is especially important to the survival of families already struggling to make ends meet. It is difficult to assess the need for child care facilities in Castleton because of the high proportion of adults who commute to other communities to work. It is expected that many parents choose to have their children near to their places of work, thus potentially reducing the need for facilities in Castleton. Even so, it is reasonable to assume that child care is potentially an important issue to

Castleton residents, given the high percentage of families living in Castleton who have young children. Parents and/or child care providers in Castleton should be asked to provide input on the need for additional child care facilities.

Health Services

Castleton has a health ordinance administrated by the Town Health Officer. Sewage and water questions should be directed to this office.

Several health organizations and services are available to Castleton residents:

- Castleton Community Health Center
- Castleton First Response
- Rutland Regional Ambulance Service
- The Rutland Area Mental Health Association
- Rutland Area Visiting Nurse Association, Inc.
- Rutland County Women's Network and Shelter
- Rutland Area Hospice, Inc.
- Southwestern Vermont Area Agency on Aging, Inc.

Rescue

Castleton First Responders (CFR) in conjunction with Regional Ambulance Service, Inc. of Rutland provides emergency response services in Castleton. Castleton First Responders is a volunteer organization made up of Castleton residents and Castleton State College students. The organization's purpose is to provide medical assistance, stabilization, and readying patients for transport to the hospital by Regional Ambulance Service Inc. CFR and Regional Ambulance are a coordinated team of state certified medical personnel who care for Castleton residents in need of medical attention. All CFR personnel are trained and tested to Vermont State Department of Health standards. Responders are trained as ECA's (Emergency Care Attendants), and EMT's (Emergency Medical Technicians – two levels, intermediate and paramedic). CFR had 19 members in 2009. During fiscal 2009, CFR was called out over 300 times. The installation and use of the 911 telephone service has improved CFR's average response time, which was three to four minutes as of this writing.

Regional Ambulance Service Inc. serves 12 communities in the region and responded to 5,664 ambulance calls and 1,295 paramedic intercept calls in fiscal year 2000.

Emergency Management

The Emergency Management Department for the town of Castleton is responsible for maintaining an emergency plan and coordinating town departments and functions in the event of an emergency. The Castleton Emergency Management Plan was updated and revised during 2008-2009. Copies of the revised plan were distributed to town officers and department heads and a copy is available at the Castleton Town Office for public review. The Basic Emergency Operations Plan is a condensed version of the Emergency Management Plan that documents all the steps that need to be taken in the event of an emergency and includes a complete listing of contacts, selected methods for alerting the public, locations that are to be used as shelters and emergency operations centers, emergency equipment available, and a map of evacuation routes

In 2009, the Town updated its All Hazards Mitigation Plan. The Plan identifies the most likely types of emergency incidents and locations where these incidents are most likely to take place. The Plan also sets forth a prioritized list of tasks to be completed to reduce the damage from future emergencies.

According to the plan, key issues in Castleton include flooding, landslides and fluvial erosion. Priorities for Castleton in the Mitigation Plan include town hall structure upgrades, protection of town records, increasing fire protection in the village, culvert upgrades, remediating recurrent flooding issues on certain roads and erosion prevention measures.

Two emergency shelters have been designated in Castleton: the Elementary School and the American Legion Post. The school has worked with the town to install an emergency generator to power the building in the event of a power loss. The Legion is planning, with the town, to do the same. The American Red Cross has worked with the school and Legion to train staff members of both facilities on how to open and run a shelter. The Emergency Management Coordinator is grateful for the assistance of the town departments, town officers and staff, and many volunteers that have worked together to improve emergency management planning in Castleton. A map detailing emergency management facilities and updated E-911 road names is located at the town offices.

Public Safety/Police

The Castleton Police Department operates seven days per week providing 18 to 20 hours of daily coverage including weekends and holidays. Department personnel include a Chief of Police, two full-time officers, six special officers, and one part-time administrative assistant. The town also has two locally-elected constables to assist with issues as per local request. The town owns three cruisers, two of which are equipped with both UHF and VHF radios as well as Mobil Data Terminals. The Castleton Police Department is able to draw on the resources of the State Police barracks located on Route 4A west of the Castleton Four Corners. The state police breathalyzer, fingerprinting equipment and holding cell are used on a regular basis and have saved the town from incurring expenses for these items.

Castleton's Part I crime rate in 2008 was 16.94 crimes per thousand population or 72 crimes committed. The Part II crime rate in 2008 was 18.31 crimes per thousand or 232 crimes committed. These figures continue to be considerably lower than the Part I and Part II crime rates for Rutland County.

Castleton experiences an average of 1,200 to 1,300 calls for service per year. During the 2008/2009 fiscal year, the Castleton Police Department responded to 1,158 calls for service, a slight decrease over the previous 5 year average.

Fire Protection

Existing Facilities

The town Fire Department is located on Elm Street housed within a two-story 4,440 square foot fire station and a one-story, 1,940 square foot Quonset storage building. While the building is somewhat outdated, the location is excellent and equipment and supplies are adequate. Future needs have been anticipated and a capital budget plan exists with sinking funds dedicated to replacement of needed items. The membership of approximately 20 is voluntary. Training and fire prevention awareness

have been top priorities of the department. Results from this prioritization show that although our population has doubled since 1969, the number of fire calls has been reduced.

Fire Rating

Castleton enjoys a good fire rating. Insurance Service Organization is the ratings authority that evaluates fire departments. They consider factors such as distance from the fire station, distance from a hydrant, volunteer members or paid, and the department's capacity and size. The ISO rating directly affects all property insurance premiums.

Where municipal water is available, the rating is 7; areas outside of hydrant protection are rated at 9. Isolated areas are rated as unprotected. For perspective, Rutland City with a paid fire department is rated with a 4; Fair Haven is rated at 6 near hydrants and at 9 in outlying areas. Poultney has similar ratings to Castleton with a 7 and a 9 depending upon the distance factors.

Mutual Aid

The Castleton Volunteer Fire Department is a member of the Rutland County Mutual Aid Association. Membership enables the Castleton FD to call for men and equipment from towns in Rutland County should the need arise. Castleton's fire chief considers mutual aid agreements as a significant resource and is comfortable with the department's ability to meet present and future residential need largely because of the existence of mutual aid agreements.

Castleton Highway Department

A Highway Supervisor, three maintenance/equipment operators, and two mechanics make up the Castleton Highway Department responsible for the maintenance and improvement of Castleton town roads. Department responsibilities include snow removal and salting in the winter months and brush cutting, limb and tree removal from the right-of-way in the summer months as well as resurfacing projects, guardrail installations, bridge repairs, sign installation, and other activities as required. The Department has an approved budget of $1.1 million for fiscal 2010-2011.

Telephone and Television Services

Fairpoint and Shoreham provide Castleton's telephone utility needs while Comcast services the town's television programming. Both Fairpoint and Comcast are investor owned and operated while Shoreham is a privately owned company. Each of these providers utilizes digital communications systems providing Castleton with state-of-the-art services.

Wireless Telecommunications Facilities and Services

Given the industry's plans to increase its presence in Vermont and the sometimes highly sensitive nature of telecommunications tower proposals, it has become increasingly urgent that every Vermont town adopt regulations specifically addressing siting and application requirements for these towers. Thoughtful regulations balance the desire for better communications facilities with the desire to preserve scenic landscapes and ensure safety in each community.

Vermont towns and cities may regulate wireless telecommunications facilities for aesthetic and environmental reasons but may not regulate their siting, construction and modification on the basis of potential radiation effects relating to health and interference. Traditional tools: planning, adopting reasonable bylaws, and relying on aesthetics, safety concerns (other than radiation) and character of

the neighborhood provide communities with the best tools to regulate the location of wireless telecommunications facilities.

The town of Castleton is committed to the protection of the quality of its aesthetic, natural, historic, and cultural resources as well as, above all else, the health, safety and welfare of Castleton residents. Given this paramount commitment, the Castleton Development Review Board will closely scrutinize all telecommunication tower and facility applications. The DRB will utilize all means at its disposal to ensure that the applicant is in compliance with all applicable federal, state and local requirements and can adequately demonstrate the necessity for siting of the telecommunications facility in the Town of Castleton.

Wastewater

Existing system

Town sewer is available to approximately 714 parcels or 1,100 users. The sewer service extends throughout the Main Street village center; along most of Route 4A and Route 30 north of the Four Corners including the senior housing project and part of the east shore of Lake Bomoseen; and, to much of Sand Hill Road. Some areas of the town are serviced by privately owned sewer lines.

The town has two full-time employees to operate the plant located on Route 30 south of the Castleton Four Corners. The Plant, situated on eight acres, consists of a 1,500 square foot building built in 1971. A smaller outbuilding is also located on the parcel, as are numerous storage vats, including a 400,000-gallon vat added in 2000.

The collection of waste is handled by a main pumping station located across from Goddard's Transportation on Route 4A. Smaller stations are located in Hydeville, at the Prospect House, on Route 4A near the Main Street Bar and Grill, at Sucker Brook, in Blissville, on South Street and at the Elementary School. In addition, the town owns and maintains 62 grinder pumps on Route 30 north of the Four Corners.

Castleton's Waste Water Treatment Facility underwent a significant capacity upgrade in 1999. The system has a designed capacity of 540,000 gallons per day and utilizes state-of-the-art technology to process and disinfect the daily flow of effluent. Disinfection of the effluent is achieved through the use of 256 ultraviolet lamps submersed in the passing treated effluent. Utilizing this technology enables the facility to consistently exceed disinfection requirements without the use of chemicals. The treatment plant operates as an Enterprise Fund in that it is funded and supported by users.

Future Needs

The existing plant has a permitted flow limit of 480,000 gallons per day and on an average day processes 300,000 gallons. However, there are peak days when the flow levels do exceed the permitted limit. Normally occurring after heavy rains or quick snow melts, this excess flow can still be handled by the current plant. However, any significant expansion of sewer service within the town or substantial development within areas already served will require that either the existing treatment facility be expanded or that another treatment facility be built to handle the anticipated increase in volume. This plan recommends that the Castleton Select Board establish a committee to identify future sewage treatment needs and means by which those needs can best be met.

Water Supply

Existing facilities

The municipal reservoir is owned by Fire District #1, and is located in the Ellis Orchard. The reservoir consists of two 112,500-gallon concrete water tanks. The reservoir is supplied by two wells: one is located at North Road and one is located across the river on Mill Street.

Approximately 304 units are serviced with municipal water. The service area is in the village center and along Route 4A from Hutchins & White to the Castleton River, on South Street slightly past South Street Extension, along Staso Road to the Town Garage, and Route 30 from Castleton Corners to the Fellowship Bible Church. Outside of the service area, residences primarily use private wells. However, a few Lake Bomoseen residences are serviced with lake water.

Castleton Fire District #3 / Municipal Water Service Expansion

Castleton Fire District #3 was formed on November 1, 1999 with the goal of establishing a community water system in the Four Corners/Hydeville area. The District, which now encompasses existing commercial, industrial and residential development along Route 4A and the aforementioned Route 30 from Castleton Four Corners to the Fellowship Bible Church, opted to connect to Fire District #1's water supply to serve the needs of the area. As of this writing, discussion is underway to consider consolidating Fire District #1 and Fire District #3 into a single managed district.

Solid Waste Disposal

Solid Waste in Castleton is managed in cooperation with the Rutland County Solid Waste District (RCSWD), a special purpose municipality overseen by a board of directors representing its member towns. The District has contracts in place to provide its members with access to lined landfill space, hazardous waste collection, recycling, and related services and facilities. Membership in the District establishes a guaranteed waste disposal option for the town. In the event all other means of disposing of solid waste were closed off, the District would continue to provide services to the town. The District also provides unregulated hazardous waste collection services to both households and businesses.

The Town of Castleton presently operates a transfer station located on Staso Road sharing a twenty-five acre parcel with the Town Garage. The station accepts municipal solid waste and construction/demolition materials as required to comply with state standards. The Town of Hubbardton pays an annual fee for usage of the Castleton transfer station. Transfer station hours of operation are 8:00 A.M. to 4:00 P.M. Tuesday, Thursday, and Saturday. The Town of Castleton encourages recycling and mandates it for newspapers and cardboard.

Castleton State College

It must also be recognized that the College affects many areas of the town's infrastructure. Increased vehicular traffic from the students and visitors drawn to the many cultural and sporting events held by the College impacts the town's road system, parking and law enforcement. The need for an adequate supply of drinking water and wastewater collection and processing also impacts the town's ability to meet non-college demand. These issues should be considered as the planning and decision making processes move forward.

COMMUNITY FACILITIES AND SERVICES GOALS, POLICIES AND PROGRAMS

Goal 1

To provide the highest quality community facilities and services to meet anticipated growth and protect the health, safety, and welfare of town residents within the context of fiscal capabilities and land use planning objectives.

Policy 1

Improve the capacity of the Castleton Town Government to perform effectively.

Programs

- Support the efforts of community residents and the Select Board in pursuing grants to fund the improvement of the historic Town Office.
- Improve the quality of intergovernmental communication by conducting bi-annual or annual meetings inviting all members of each of the municipal boards and town government employees to openly discuss issues concerning the efficient function of municipal business.
- Encourage regular public comment on the performance of the Castleton Town Government by posting anonymous comment boxes around the community and encouraging residents to attend regular meetings of municipal boards.
- Increase community participation in local government and in community events.

Policy 2

Ensure that the location and capacity of infrastructure is consistent with other planning goals, such as protection of natural resources, the provision of quality housing for all residents, and the recruitment of appropriate businesses to Castleton.

Programs

- Use the Castleton Town Plan to help guide decision-making regarding community facilities.
- Review Castleton's zoning and subdivision regulations to ensure that they are consistent with the Goals, Policies, and Programs of the Castleton Town Plan and update as needed.
- Stay abreast of innovations and emerging technologies in order to keep town policies and regulations concerning siting of necessary infrastructure up to date.
- Continue the consolidated permit process whereby sewer and water concerns are addressed in all development projects.
- Continue to protect groundwater and surface water supplies with an effective and efficient sewage treatment facility.
- Encourage industrial growth in areas served by the municipal water and sewer system.
- Develop a comprehensive plan that addresses the future needs of wastewater treatment requirements with the town.
- Ensure that any over-riding State agency is aware of the critical importance of the mountain peaks and ridgelines in our town to the benefit and enjoyment of the general public.

Policy 3

Protect the health, safety and welfare of Castleton residents through the provision of high quality municipal services.

Programs

- Maintain a current and effective rapid response plan and continue to engage in more comprehensive emergency management planning as resources become available.
- Maintain a superior volunteer fire department through an awareness campaign to solicit volunteer members and a comprehensive plan for facilities upgrade.
- Explore options for relocating the police department to a building that is accessible to the disabled and will provide sufficient workspace and privacy required of a police station.
- Utilize the State Police facilities as much as possible, but be prepared to increase the size of the police force to correspond to future needs.
- Continue capital budgeting for equipment needs.
- Solicit the help of the business community in inventorying hazardous materials contained within town borders.
- Encourage cooperation between the town and the college chemical safety officer.
- Continue participation in meetings with Poultney and Fair Haven on the potential formation of a joint police department.

Policy 4

Provide the town with adequate waste disposal facilities and manage costs effectively.

Programs

- Continue to monitor all possible alternatives for waste disposal.
- Strictly control access to residents of Castleton and Hubbardton.
- Identify a long-term solution to rising solid waste disposal costs.
- Investigate revenue generation potential.
- Develop a plan to increase recycling where economically justified.

Policy 5

Encourage maximum flexibility for parents to have access to quality child care providers.

Programs

- Continue to permit the use of single family homes in Castleton for small-scale family child care facilities that meet state and federal regulations.
- Meet with current child care providers and parents of young children to determine if there is a need for additional child-care capacity in town.

EDUCATION

Castleton is a member of the Addison-Rutland Supervisory Union along with Benson, Hubbardton, Fair Haven, Orwell, and West Haven. Castleton is unionized with neighboring Hubbardton forming a K-8 elementary / middle school. The K-6 building is located on Route 30 in Castleton, and 7th and 8th graders attend the Village School located on Mechanic Street in downtown Castleton. Grade 9-

12 students attend Fair Haven Union High School (FHUHS), a six-community union school of 484 students, located on the Mechanic Street Extension in Fair Haven. FHUHS offers a wide variety of academic courses, technical training and extra-curricular activities.

Educational Attainment

Castleton had a greater concentration of residents who had completed *at least* some college than the region, or the state in 2000. Nearly 53 percent of all residents of the town continued their education past high school, compared with 48 percent for the county.

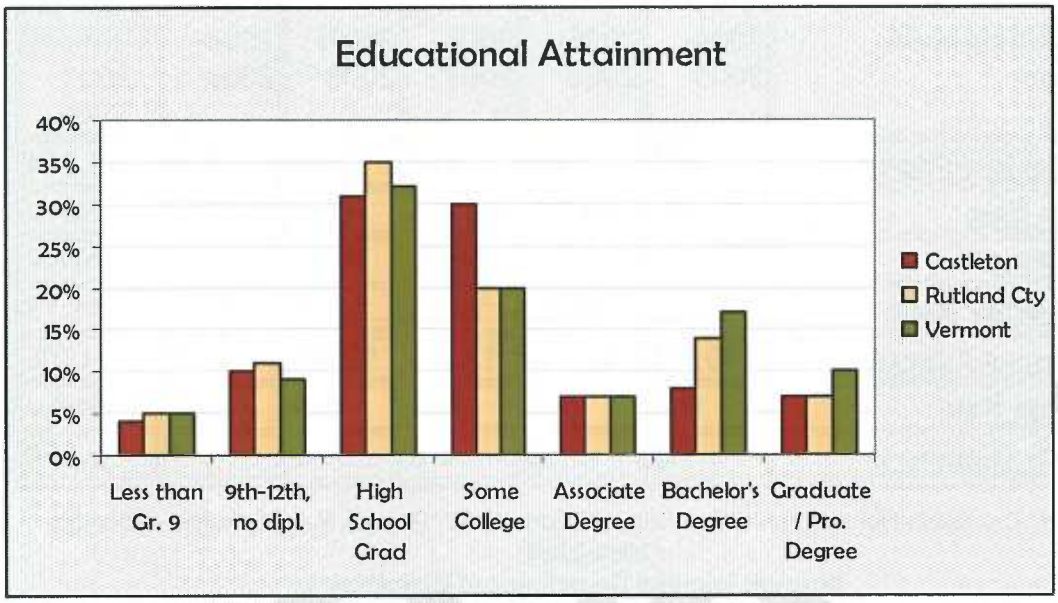


Figure 9: Educational Attainment

Source: 2000 US Census

Castleton-Hubbardton Union School District # 42

K-8 Existing Facilities

Castleton-Hubbardton Union School District # 42 includes Castleton Elementary for Castleton and Hubbardton students grades K-6 and the Village School for grades 7 and 8. Castleton Elementary, located on Route 30, was built in 1971 on 42 acres. It is a 64,000 square foot two-story building with approximately 38 rooms. The Village School was built in 1955 and is located on 4.55 acres.

In addition to housing grades 7 & 8, the Castleton Village School is often used for community meetings and events.

Statistical Indicators

Table 1 provides a summary of several statistical indicators of trends at the Castleton Elementary and Village Schools. Similar to Rutland County averages, total school enrollment has been decreasing over the past few years.

Castleton Hubbardton US #42: General School Information

School Participation Information	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	State of Vermont 2007-2008
Total School Enrollment	461	462	433	404	411	94,114
Attendance Rate	95.6%	95.9%	95.9%	N/AV	94.7%	N/AV
Retention Rate	3.4%	2.4%	N/AV	N/AV	2.4%	N/AV
Student/Teacher Ratio	11.03	11.32	10.93	10.07	14.47	11.13
Eligible Special Education	10.4%	12.1%	13.2%	13.4%	15.33	14.9%
9-12 Dropout Rate	N/A	N/A	N/A	N/A	N/A	N/AV
Home Study (Number)	12	3	5	2	1	2,096

Table 1: Castleton-Hubbardton Union School District # 42, Grades K-8 Statistical Indicators (2004-2008)
Source: Vermont Department of Education

Castleton Hubbardton US #42: Staff Information

	2005-2006	2006-2007	2007-2008	2008-2009	State of Vermont 2007-2008
Classroom teachers	26.60	27.00	26.43	28.4	6,800.38
Other teachers	17.20	15.60	16.70	15.8	2,045.55
Instructional aides	27.13	25.60	24.50	28.6	3,732.87
Instructional coordinators and supervisors	3.00	0.80	0.88	N/A	204.40
Licensed administrators	2.00	2.20	2.12	3	445.57
Administrative support	5.00	5.00	5.00	5	744.89
Other staff	12.84	14.60	13.60	6.6	2,659.19
Average teacher salary	$37,866	$40,548	$40,086	$43,170	$49,521

Table 2: Castleton-Hubbardton Union School District # 42, Grades K-8 Statistical Indicators (2004-2008)
Source: Vermont Department of Education

Fair Haven Union High School

9-12 Existing Facilities

The main building of the Fair Haven Union High School was built in 1957. Located on Mechanic Street Extension in Fair Haven, the school is an all brick building of 47 classrooms with a capacity of approximately 670 students. Additions to the school were built in 1973 and 1984 and in 1996 construction of a new science wing was completed. The facility was re-roofed in 1985, underwent asbestos removal in 1991 and was made fully accessible to the disabled in 1993. A large greenhouse, separate from the main school building is used for horticulture classes. School grounds include a number of athletic fields and a new track was completed in the autumn of 2001.

Statistical Indicators

Table 3 and 4 provide a summary of several statistical indictors of trends at Fair Haven Union High School. Similarly to the K-8 statistics, total school enrollment has declined significantly.

Fair Haven UHS #16: General School Information

School Participation Information	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	State of Vermont 2007-2008
Total School Enrollment	594	551	540	526	484	94,114
Attendance Rate	92.8%	92.8%	93.3%	N/AV	93.3%	N/AV
Retention Rate	1.8%	6.0%	N/AV	N/AV	3.5%	N/AV
Estimated HS Cohort Graduation Rate	84.31 %	85.71%	90.14%	N/AV	N/A	N/AV
Student/Teacher Ratio	12.32	12.09	13.25	11.70	15.12	11.13
Eligible Special Education	10.1%	11.4%	10.9%	11.0%	13.64%	14.9%
9-12 Dropout Rate	3.31%	3.44%	4.36%	N/AV	3.25%	N/AV
Home Study (Number)	9	2	3	8	6	2,096

Fair Haven UHS #16: Staff Information

	2005-2006	2006-2007	2007-2008	2008-2009	State of Vermont 2007-2008
Classroom teachers	41.57	34.77	39.97	32	6,800.38
Other teachers	10.60	12.00	10.00	19	2,045.55
Instructional aides	27.84	26.90	26.70	26	3,732.87
Instructional coordinators and supervisors	2.30	2.30	2.30	N/A	204.40
Licensed administrators	2.00	2.00	2.00	4	445.57

Administrative support	7.09	5.50	6.00	5.5	744.89
Other staff	17.85	17.50	19.88	14	2,659.19
Average teacher salary	$43,306	$42,442	$42,336	$45,870	$49,521

Table 3 & 4: Fair Haven Union High School Statistical Indicators (2004-2008)
Source: Vermont Department of Education

Transportation/Bussing

The Castleton Town School Board oversees a fleet of thirteen buses with two spares for backup on local routes, as well as two vans accessible to the physically impaired. The Board employs a mechanic as well as a professional crew of bus drivers and annually asks Castleton's taxpayers to support a bus fund to continually upgrade the fleet as necessary.

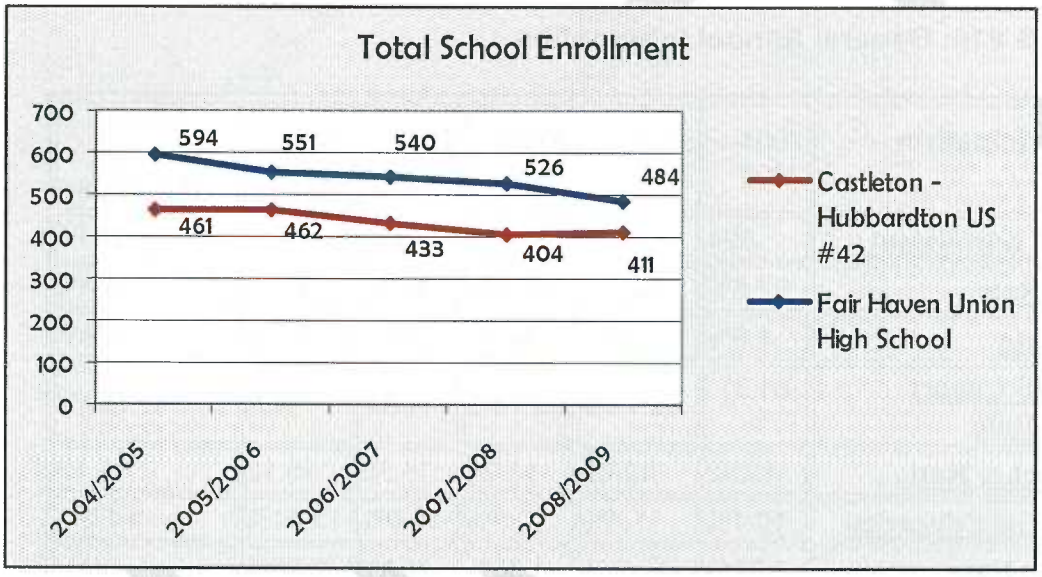


Figure 10: Total School Enrollment

Source: 2009 Vermont Department of Education

Budget / Funding

Funding for education comes from a mix of state and local sources. Act 60 was first implemented in the 1998-99 school year and reallocated state funding for education. A statewide property tax for education was implemented and distributed according to the number of students per district and their demographic needs. The local share of funds is raised predominately through the local property taxes to cover tuition, special education, transportation and administration. Under the Act 60 system, property "wealthy" towns (known as gold towns) are required to share some of their taxes with less property wealthy towns (known as receiver towns). Castleton has been a receiving town during the first twelve years under Act 60.

Future Needs

The *Rutland Regional Plan* identifies two key sets of economic and demographic trends that are likely to affect education in the Rutland Region in the coming years:

- A level, or continued decline in school aged population Region-wide, because of the aging of the Region's population, low birth rates and limited in-migration of young families.

- A need for professional unskilled workers in the coming years - but not of well-paying, manufacturing type work - because of the retirement of baby boomers and the continued outsourcing of manufacturing work abroad.

These two trends will create opportunities for current students who acquire needed skills and education, but also leave those without skills with few opportunities outside of low paying service jobs.

Castleton State College

Castleton State College was founded in 1787 with a charter from the Vermont General Assembly. It is the oldest college in Vermont, the fifth oldest college in New England and the eighteenth oldest college in the United States. The College saw dramatic growth in students and its stature in the 1920s and 1930s and with increased enrollment from men began intercollegiate athletics in the 1950s. In 1962 Castleton joined other state supported colleges in becoming a part of the Vermont State Colleges, a consortium of five colleges governed by a common board of trustees, chancellor and Council of Presidents, each college with its own president and deans. Castleton, an NCAA Division III level college, added varsity football along with a new stadium in 2009 and now has 20 varsity sports, competing in both the North Atlantic Conference and the Eastern Collegiate Athletic Conference.

Castleton continues to expand its facilities, programs and student population. Currently headed by President David Wolk, the College offers 30 academic programs to approximately 2,000 students and is dedicated to the intellectual and personal growth of students through excellence in teaching, close student-faculty interaction, numerous opportunities for outside-the-classroom learning, and an active and supportive campus community. Castleton strives to learn, use, and teach sustainable practices. The College prepares its graduates for meaningful careers; further academic pursuits; and engaged, environmentally responsible citizenship.

Castleton State College has an enrollment of approximately 2,000 students

EDUCATION GOALS, POLICIES AND PROGRAMS

Goal

Each institution in the Castleton school system will, in partnership with the community, promote in all students the knowledge and skills necessary to become independent thinkers, lifelong learners, and responsible productive citizens.

Rationale

High quality school systems that are responsive to the needs of both the students and their parents are important in every community, but this is especially true in rural towns where many activities center on school programs. A positive relationship between the local school system and a community's residents is a good indicator of a high quality of life in town. Continued open communication between parents and the schools' boards and administration as well as active support and involvement of community residents in the schools curriculum, programs, and activities will help to insure that the high standard of education provided to Castleton's children is maintained.

Policy 1

Challenge all children to be responsible and productive citizens and expect high performance of all students.

Programs

- Provide a safe and orderly environment conducive to learning.
- Provide the resources, staff, and facility necessary for each student to achieve his/her individual potential.
- Provide an integrated, diverse, and challenging curriculum that meets the changing needs of students.
- Provide and adequately fund a wide variety of co-curricular/extracurricular activities that promote students' personal and social development.
- Improve student performance through professional development efforts for administration and faculty in annually identified focus areas.
- Take an innovative approach to the use of new technology for learning purposes.

Policy 2

Encourage all parents, teachers, students and citizens to work together toward educational goals

Programs

- Provide regular opportunities for teachers, parents, and citizens to communicate openly (school open house, parent teacher conferences, school board meetings, etc.).
- Maintain an "open door policy" wherein parents are encouraged to contact school administrators whenever they feel a need to discuss an issue or event that concerns the welfare of their child.
- Promote opportunities for parents and residents to get involved in school programs and activities.

Policy 3

Control the cost of education.

Programs

- Match expansion of the school systems to the town's economic ability to support additional costs.
- Ensure that additional infrastructure costs, such as expansion or renovation of schools, which become necessary as a result of residential growth, are borne by the developers.
- Continue capital budgeting for future need.
- Investigate the feasibility of consolidating the existing school facilities in the event student population continues to decline.

ENERGY

The plan shall encourage energy efficiency, recycling, innovative house siting where applicable, and encourage renewable and alternate power and fuel sources within the Town of Castleton and in cooperation with other organizations.

Residential Heating

Heating and other related household activities account of 31% of all energy use in the State. Most home energy use in Castleton is provided by heating oil, propane, wood and electricity.

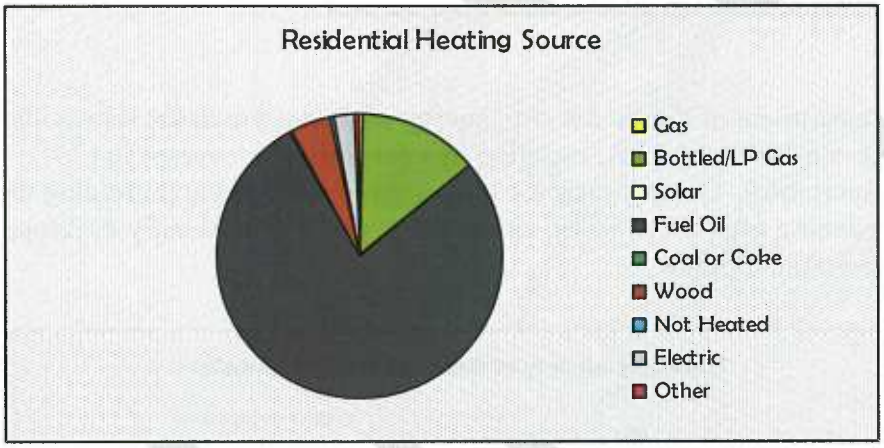


Figure 11: Residential Heating Source

Source: 2000 US Census

Electricity

According to the Vermont Department of Public Service, nearly 40% of the energy consumed in Vermont comes from electricity. CVPS's power is purchased mainly through long term contracts with Vermont Yankee Nuclear Power Station (54.2% of its power) and with Hydro-Quebec (38.2%). While both of these energy sources are reliable and stable, there is some uncertainty about the long-term viability of these sources due to the approaching expiration of their contracts. The *Regional Plan* also predicts that energy use is likely to increase throughout the region at a slow pace, with high demand during the summer months. A small amount of power is also derived from wood (3.4%), oil (1.5%), CVPS Cow Power (0.1%), and other sources.

Central Vermont Public Service Corporation (CVPS) serves the electricity needs of the town through its district office in Poultney. There are two substations in the community, one in Castleton and the other in Hydeville. The town is served by a 12.5 KV distribution system, which has sufficient

capacity for additional customers, both residential and commercial.

Transportation

Transportation is a significant source of energy use in the Rutland Region and Vermont as a whole. According to the Vermont Department of Public Service, transportation accounts for 31% of all energy consumed in 2000 in Vermont. Private automobile use is the primary source. 33% of Castleton residents work outside of the town. The average commute time is 22 minutes.

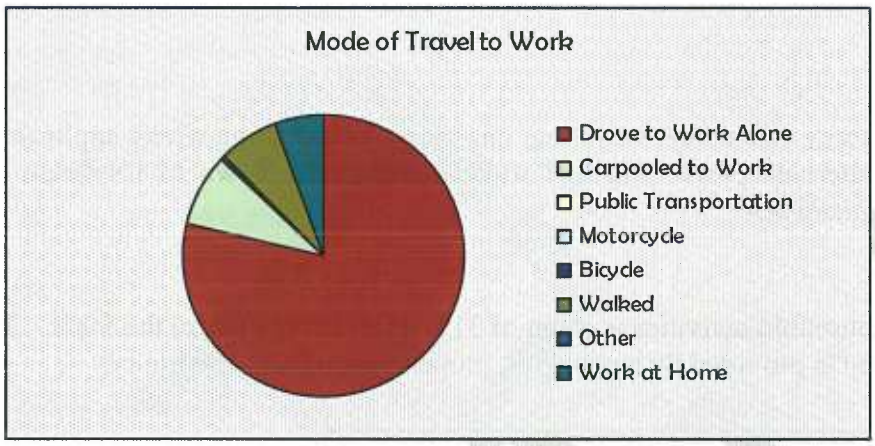


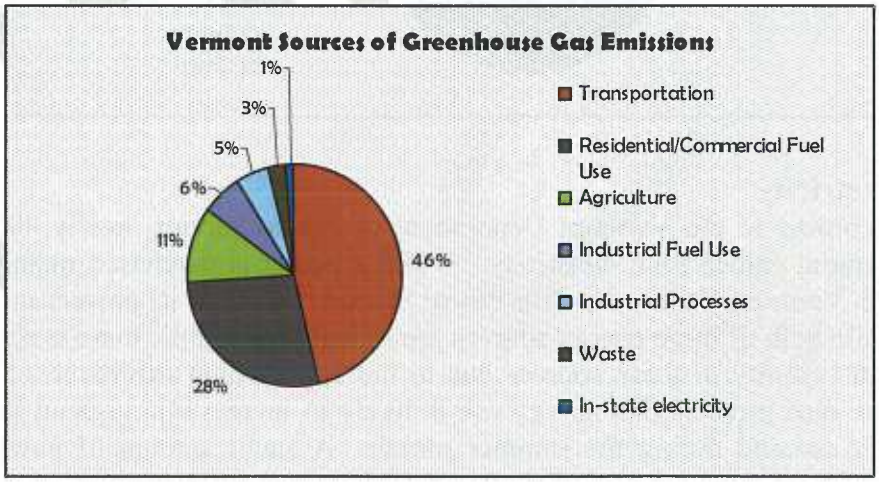
Figure 12:
Mode of Travel to Work

Source:
2000 US Census

According to the Vermont Department of Public Service, energy consumption in the transportation sector increased by 23% between 1990 and 2001, resulting in a proportional increase in CO_2 emissions generated by transportation. Cutting costs for transportation will mean promoting the use of more efficient vehicles, reducing trips out of town, encouraging pedestrian friendly development, and developing public transportation options.

Figure 13:
VT Source of Greenhouse Gas Emissions

Source:
VT Climate Change Commission



Regional Energy Trends

The *Rutland Regional Plan* identifies several trends in energy use over the next 5-20 years.

- Electrical energy consumption is likely to continue to increase in the commercial and industrial sectors.
- Peaks in demand will likely become a significant concern for providers and consumers, as large-scale storage of electricity is not an option.
- Demand for fossil fuels will continue to increase, despite increases in cost. Reduction in demand is currently limited by our built environment, which is automobile oriented.
- CVPS' SmartPower initiative and associated Smartmeters will replace most existing structure meters within five years. This will improve the efficiency of the system and allow customers to understand and regulate usage.

Renewable Energy Sources & Conservation Measures

Renewable energy as an alternative to energy generation with fossil fuel can provide for electricity needs while protecting the environment.

Solar energy is an important renewal resource. The solar resource available to much of Vermont may not be enough to provide the total energy needs of a household, but can contribute significantly as a substitute to electric heat and hot water. Solar energy can be harvested through solar panels in the form of electric current to power appliances or as a passive energy used to heat a home. Passive solar design uses the sun's energy in heating a structure so that the need for supplemental heat is greatly reduced.

Wood which is also a renewable resource when well managed, is sustainable, and is often used for home heating fuel. When a forest is managed so that for every tree cut there is a tree planted, a no-net-carbon-gain occurs. Using wood as fuel is both renewable and environmentally benign.

Small WECS (Small Wind Energy Conversion Systems) are good renewable resources for a household and can contribute to a utility distribution system.

Hydro-power is a renewable resource which could be used in Castleton.

Construction of large commercial/industrial wind towers and related infrastructure such as roads, power lines and staging areas on any of Castleton's ridgelines would undermine the specific goals and policies established for the ridgelines, and must be avoided.

The character of the town of Castleton and the surrounding communities of Ira, West Rutland, Hubbardton and Pittsford is defined by the rural mountain setting and the pattern of undeveloped ridgelines. In 2012, the Select Boards of each of these towns unanimously voted to oppose ridgeline development for commercial/industrial wind power.

Commercial/industrial scale wind development in the Castleton Ridgeline Protection Overlay zone would threaten the character of the surrounding towns; would be incompatible with the town plans of these communities; and must be avoided.

Castleton supports incentives to encourage the exploration of alternative energy sources such as

wind, water, micro-hydro, biomass and solar power, provided they fit with the natural environment and surroundings. The *Rutland Regional Plan* also notes the potential for local energy production in the form of methane captured from dairy farms or landfills, reestablishment of hydroelectric dams, solar generation, wind power, geothermal and biomass/biodiesel. These alternative energy sources are being installed in schools and farms, as well as in individual homes around the state and the region. Several homes in Castleton get all their domestic energy from solar and wind.

Although municipalities have little control over the fluctuations in the global energy market, there are many steps they can take at a local level to help their citizens and government offices function cost-effectively and with the smallest possible impact on the environment:

- **Efficient building design** - low-flow toilets and shower heads; energy efficient appliances and lighting; using local materials during construction; passive heating and cooling, through building orientation, proper fenestration and landscaping; solar hot water; super insulation and renewable heating sources such as geo-thermal heat pumps.

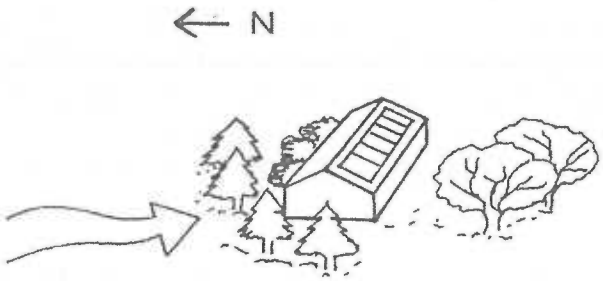


Illustration shows basic building orientation and landscaping that maximizes passive heating and cooling.

- **Development Patterns** - Land use patterns are a significant factor in determining energy demand and transportation is the leading source of energy use in the Region and State. Compact development and mixed use village/town center development helps reduce demand for transportation by locating many goods and services in the same place and facilitates pedestrian and bicycle modes of travel. Supporting compact development surrounded by more rural open areas also maintains the traditional land use pattern that residents and visitors associate with the history and character of the region.

Ideas for Promoting Community Energy Efficiency:

- Conduct energy audits and energy efficiency upgrades to public buildings
- Residential building audits and energy efficiency upgrades
- Compact Fluorescent Light-bulb exchange programs
- Enact land use bylaws which promote compact development patterns and discourage "strip" development and sprawl.
- Purchase energy efficient appliances
- Lights out policies (night-time, not in use)
- Municipal street light change-out programs
- Water treatment efficiency retrofits (grey water reuse, high efficiency pumps)
- Building sidewalks and bike paths
- Hold a community energy fair
- Acquire and managing (sustainably) town forests

- Form a local energy committee
- Encourage citizen participation in statewide and regional energy programs such as: Button-Up Vermont, Vermont Community Energy Mobilization, Way-to-Go Commuter Challenge, No Idling Campaign and the Rutland County Energy Challenge sponsored by the Rutland Regional Planning Commission.

Regulatory Implementation – Putting Energy into Local Bylaws

The following is language from *VSA 24, Chapter 117 – Municipal and Regional Planning and Development,* regarding energy planning. This, or similar language may be used in local land use regulations to address energy issues.

A "proposed **conditional use** shall not adversely affect:

- **(v) Utilization of renewable energy resources."**

"In reviewing **site plans**, the [board] may impose appropriate conditions and safeguards with respect to:

- **…circulation and parking, landscaping and screening; the protection of the utilization of renewable energy resources."**

"**Subdivision** bylaws may include:

- **(C) Specific development standards to promote the conservation of energy or to permit the utilization of renewable energy resources, or both."**

Planned Unit Development:

- **Any municipality may adopt zoning regulations providing for planned unit developments to encourage new communities, innovation in design and layout, and more efficient use of land.**

ENERGY GOALS, POLICIES AND PROGRAMS

Goal

Reduce energy consumption where possible.

Policy 1

Improve energy efficiency of town operations as well as public, commercial and residential buildings.

Programs

- Encourage all new public and commercial construction to meet advanced energy standards.
- Encourage residents to take advantage of NeighborWorks of Western Vermont for energy efficient testing and loans for insulation, windows, etc.
- Encourage residents and businesses to utilize the resources of energy efficient programs such as "Efficiency Vermont" and CVPS's economic development incentives to help improve home and commercial energy efficiency.
- Conduct an energy audit of public buildings to evaluate potential energy savings and

encourage local businesses to do the same.

- Encourage installation of outdoor lighting in accordance with the guidelines in the *Outdoor Lighting Manual for Vermont Municipalities.*
- Encourage the use of renewable sources of energy such as small scale wind, solar, wood, hydropower and methane if they comply with all of the conditions, restrictions and directions set out elsewhere in this Town Plan.

Policy 2

Promote more energy efficient methods of land use and transportation.

Programs

- Encourage siting of buildings so as to reduce energy costs, such as solar orientation, use of natural windbreaks and shade trees, and development in previously existing growth centers.
- Allow flexibility in the siting of solar energy systems in the Castleton zoning regulations.
- Encourage the use of carpools, vanpools, and public transit for commuters and others.

Policy 3

Educate and encourage citizen participation in statewide and local energy conservation programs.

Programs

- Form a Castleton Energy Committee.
- Use Town Meeting Day to increase energy awareness.
- Promote energy conservation programs such as Button-Up VT, Way-To-Go commuter challenge and Vermont Community Energy Mobilization Project.

NATURAL RESOURCES

The natural environment has played an important role in shaping Castleton's image, appearance and attractiveness to town residents, seasonal homeowners, and tourists alike. Lake Bomoseen is one of the most actively used water bodies in Vermont and clearly of great importance to Castleton's seasonal visitor economy. Many rolling forested hills and mountains, quiet trails, and scenic rivers, ponds, and wetlands round out the town's lush landscape. Castleton Natural Resource Maps 1 and 2, located at the end of this section, depict each of Castleton's principal natural resources as well as areas of land use regulation designed to protect natural features as well as the health and safety of humans and wildlife. These maps are referenced frequently throughout the detailed discussion of Castleton's natural resources that follows.

Climate

Castleton's climate is classified as humid, continental, with cool summers; meaning there is wide daily and annual variation in temperature and variability between the same seasons in different years. The average annual precipitation in the town ranges from 38 to 42 inches and the mean annual snowfall is just less than 60 inches. Higher elevations may, however, receive considerably higher amounts of precipitation. The average wind speed is slightly higher in the winter months and predominately from the northwest, while during the summer months the prevailing winds are from west-southwest. Sun orientation generally ranges from northeast to northwest in the summer and southeast to southwest in the winter.

Topography

The Town of Castleton is located entirely within the Taconic Range characterized by rugged mountains with irregular topography and elevations approaching 2,200 feet. The town may be further subdivided into the Taconic Foothills and the Taconic Mountains. The western half of the town consists of Taconic Foothills, which are a series of oval shaped, north-trending hills averaging 500 feet in elevation. The higher elevations of the Taconic Mountains rise in the eastern half of the town, including Bird Mountain (elevation 2,216'), Grandpa's Knob (elevation 1,976') and Blueberry Hill Peaks ranging in elevation from 1,245 to 1,918 feet.

Geology

The geological formation of the town accounts for deposits of slate. The most common formation underlying the town yields purple, gray, green, and variegated slates, important sources of commercial slate, particularly in the western foothill portion of the town. The West Castleton formation is another dominant geological formation in the town. This formation is a gray to black slate of limited economic importance.

Agriculture and Forest Resources

Agriculture and silviculture are not only important economic activities in Vermont, but are also the foundation of a highly valued rural lifestyle and a significant factor in shaping the landscape. Land capable of supporting agricultural uses requires prime agricultural soils as well as moderate slope, adequate parcel size, and access. Like agriculture, forestry is an important activity in the state and region. Lands capable of supporting forests are critical to the support of silviculture, a Vermont tradition, as well as providing wildlife habitat, and places for recreation.

Primary agriculture soils are depicted on Castleton Natural Resources Map 2. The Natural Resource Conservation Service (NRCS) has classified Vermont's soils into four categories with respect to their potential for agriculture – highest, good, low and limited. NRCS recommends that highest and good categories qualify as primary agricultural soils as defined in Act 250. These classifications only consider physical and chemical soil properties. They do not consider location of specific areas, accessibility, and current land use. As is the case with most Vermont towns, there are a number of active farms in Castleton sustaining families and making an important contribution to the economy and culture of the town.

Castleton's upland hills and mountains remain undeveloped due to their inaccessibility by town roads and the limiting influence of steep slopes and shallow soils. These areas are forested with trees of the northern hardwood association. There are also several extensive land areas in Castleton that are owned by the state (2287.5 acres in total). Lands under the jurisdiction of the State include Love's Marsh and Blueberry Hill Wildlife Management Areas that are managed by the Fish and Game Department. Bomoseen State Park, located in West Castleton, fronts, in part, on the lake and is under the management of the Department of Forest and Parks. The Town of Castleton owns a town forest (96 acres), a short segment of shoreline in the Crystal Beach area (5.9 acres), and a small parcel adjoining the Crystal Beach area to the north (5.9 acres).

Water Resources

Watersheds

A watershed is a land area, also known as a drainage area, which collects precipitation and contributes runoff to a receiving body of water or point along a watercourse. All land uses that occur in the watershed can affect water quality. For example, pollutants that are carried off the land and into streams may eventually enter a lake. Because rivers join to become larger rivers, many watersheds may be considered sub-watersheds of larger ones. The Town of Castleton is located in the north central portion of the Poultney-Mettowee Watershed, one of 17 major drainage basins classified by the state (see Figure 11). The Castleton River and its tributaries drain the majority of the town, including Gully Brook, North Breton Brook, Pond Hill Brook and Lake Bomoseen.

Surface Water

Surface water resources, which include lakes, ponds, rivers, streams, and wetlands, provide many important benefits. For example, surface waters support economic activities such as agriculture, manufacturing and processing; residential activities such as drinking and cleaning, and recreational activities such as swimming and boating. They also serve as habitat for wildlife and as an important component of the hydrologic cycle.

Significant bodies of water in Castleton include the 2,360 acre Lake Bomoseen, 202 acre Glen Lake, 42 acre Pine Pond, 62 acre Love's Marsh, and the town's largest flowing water body, the Castleton River.

Discharges to the surface waters in the Rutland Region occur from a variety of sources and involve a wide range of pollutants. Sources are generally described as either point (direct e.g. industry, wastewater treatment plants) or non-point (indirect or diffuse e.g. agricultural run-off) discharges.

When surface waters become polluted, humans can be affected directly through exposure to pollutant concentrations in the aquatic environment, or indirectly through exposure to secondary impacts (e.g. impacts caused by excessive algal growth resulting from nutrient discharges), incidental contact with contaminated water, and through the consumption of contaminated and/or aquatic organisms (food chain exposure).

Wetlands

Wetlands are defined areas that are inundated by surface or ground water with a frequency sufficient to support plants and animals that depend on saturated or seasonally saturated soil conditions for growth and reproduction. These areas are commonly known as ponds, bogs, fens, marshes, wet meadows, shrub swamps, and wooded swamps. Wetlands often occur in association with lakes, ponds, rivers, and streams, creating transitional areas between dry land and open water. However, wetlands can also be isolated from any obvious connection to surface water.

Wetlands provide important wildlife habitat, but also provide other benefits such as storing stormwater runoff, purifying surface and groundwater supplies, recharging aquifers, controlling erosion, and providing areas for recreation. Numerous wetlands in Castleton are identified on Castleton Natural Resources Map 1.

In order to be classified as a wetland under Vermont law, an area must have wetland soils and wetland plants, in addition to at least seasonal water. Wetland soils are often anaerobic and the plants have adapted to growing in such waterlogged conditions. The Vermont Wetland Rules classify all wetlands into one of three classes. Classes One and Two are considered "significant" and protected under the Vermont Wetland Rules. All three wetland types are protected by Vermont's Act 250. Class Three wetlands are not within state jurisdiction and should be addressed under municipal regulations.

Wetland losses may be incurred both directly and indirectly. In addition to direct loss of acreage, the quality of the habitat may deteriorate due to several factors: invasion of exotic weeds; vulnerability to a variety of pollutants; litter from recreational users; and atmospheric pollutants that alter chemical compositions of wetland waters. Because of their many beneficial functions direct loss of wetlands due to filling can have dramatic ecological effects besides habitat losses.

Wetlands are not only unsuitable for building construction and onsite septic systems, they also protect and enhance water quality and shoreline areas. Wetland buffer shorelines from wave impact, slow stormwater runoff from uplands, remove phosphorus from the water during spring and summer growth periods and provide wildlife habitat. Wetlands slow and capture stormwater runoff storing it for recharge or springs and streams or wetlands themselves at a later time.

Love's Marsh, located on the northwestern shore of Lake Bomoseen, is the most extensive wetland wholly contained within the town. Maintained by the Fish and Game Department as a wildlife management area, the marsh offers excellent cover and abundant food for a diversity of animal life and migratory waterfowl. Other highly productive wetlands in Castleton include: the northeastern end of Lake Bomoseen, Pine Pond Marsh, and Lilly Pond. There are also numerous smaller wetland areas located throughout the township, particularly in the poorly drained upland areas of the Taconic Mountains and along the Castleton River and its tributaries.

Local planning commissions and citizens should not assume that state or federal agencies can protect every wetland. The state's principal authority is to protect wetlands mapped on the Vermont Significant Wetland Inventory maps and wetland areas contiguous to mapped wetlands. Many ecologically productive small wetlands may not be protected under the state's protection program. Also, some landowners may not be aware that a wetland is protected at the state level and unknowingly violate the state rules. Local officials often have more direct contact with landowners than state employees, and therefore can be very effective in providing landowners with the information they need.

Municipalities in Vermont have the regulatory tools to effectively protect wetlands. These include the municipal plan, zoning and subdivision regulations, shoreland protection bylaws, health ordinances and flood hazard regulations. Check 24 V.S.A. Chapter 117 for a complete description of the statutes governing municipal and regional planning in Vermont or call the Vermont Wetlands Office for more information. ***Municipalities also were given a responsibility in the 1986 wetland legislation to notify the state about developments in wetlands in 24 V.S.A. §4409.***

Flood Hazard Areas and Floodplain Management

Flood hazard areas are identified on Castleton Natural Resources Map 1 and in more detail within

the Digital Flood Insurance Rate Map (DFIRM) for Castleton updated in 2008 by FEMA and the State of Vermont. A flood hazard area may be defined as the land areas adjacent to rivers and streams that are periodically inundated during periods of high surface water runoff. The Flood Disaster Protection Act of 1973 requires: 1) the town to regulate development in designated flood hazard areas and, 2) that property owners in flood plain areas purchase flood insurance administered by the National Flood Insurance Program (NFIP). Should the community or property owners fail to meet these NFIP requirements any federal and federally related financial assistance for buildings in the flood plain will be unavailable to either the community or property owner.

A floodplain is the flat land adjacent to rivers and streams that is periodically inundated to varying depths during periods of high water. Small floods tend to be more frequent than large ones. The 100-year flood frequency is used as the standard for delineating flood hazard areas by the Federal Insurance Administration. The 100 year flood will have a one percent chance of being equaled or exceeded in any given year. The large 1927 flood is estimated to be a 100-year frequency and was used as a standard for mapping Rutland Town's floodplains.

An important function of floodplains is the storage and conveyance of flood waters. New development and the associated fill placed in a floodplain can obstruct flood flows and reduce the ability of the floodplain to store water, which can subsequently cause floodwaters to rise to higher levels on upstream and adjacent properties. Municipalities should consider the effects of floodplain encroachment on all properties when making land use planning and management decisions.

The most cost-effective way for towns to mitigate flood hazards is avoidance: limiting building and other investments in river corridors. In addition to preventing future flood losses to structures built in hazardous areas, this approach avoids constraining a river, allowing the stream or river, over time to become more stable. Statute 24 V.S.A. §4424 specifically authorizes towns to adopt zoning for shorelines, floodplains, and other hazardous areas, including fluvial erosion zones. Municipalities are uniquely enabled to apply local land use planning and regulations to preventing fluvial hazards and can do so by applying local knowledge and historical perspective to craft approaches that can work for each particular municipality. Although adopting land use regulations to mitigate flood hazards are likely to be controversial or even unpopular in some communities, municipal officials have a responsibility to consider these measures, as they can have important long-term public health and safety benefits, as well as the economic benefits of reduced flood losses.

Unfortunately, most communities in Vermont rely solely on the minimum standards of the NFIP to protect their communities from flood hazards. However, all communities should recognize that floodplain management based solely on NFIP minimum regulations allows for development in floodplains that will reduce the floodplain's ability to convey and store water and will cumulatively result in increases in the 100-year flood elevation. A rise in floodwaters not only can cause properties that were once flood-free to now be flood-prone but can also cause increases in the velocity of floodwaters, thereby increasing the potential for erosion of stream banks during flooding.

In addition to not preserving the floodplains' flood storage and conveyance functions, NFIP minimum standards do not preserve other natural and beneficial functions of the floodplain, such as water quality maintenance and protection, groundwater recharge and discharge, and biologic resources and functions, which can have negative impacts on a community's economic and other

resources. Therefore, communities should consider adopting flood hazard area regulations that are more stringent than the minimum requirements of participation in the NFIP. Communities that adopt more stringent regulations are eligible to receive insurance premium discounts for their residents through participation in the Community Rating System.

While participation in the NFIP is one important approach to flood hazard mitigation, NFIP maps are based only on inundation hazards and fail to consider the hazards associated with erosion due to physical adjustments of the stream channel during flooding, which is the cause of the majority of all flood damage in
Vermont.

Fluvial Erosion Hazard Mitigation and River Corridor Protection

While inundation-related flood loss is a significant component of flood disasters, the more common mode of damage is associated with Fluvial Erosion, streambed and stream bank erosion often associated with physical adjustment of stream channel dimensions and location during flood events. These dynamic and oftentimes catastrophic adjustments are due to bed and ban erosion, debris and ice jams, or structural failure of or flow diversion by human-made structures. Without the expertise and tools to manage fluvial erosion hazards, towns have been helpless to break out of this cycle of repetitive and costly flood damages.

The benefits of understanding and planning for fluvial erosion hazards are numerous and diverse. It is important to remember that fluvial erosion hazards are just that: hazards that can jeopardize public safety and cause enormous economic losses to individuals and to the public. As a result, local governments have a responsibility to protect citizens and their property by acknowledging and mitigating (reducing or moderating) fluvial erosion hazards. Fluvial erosion hazard mitigation can lead to enhanced public safety and reduce long term flood damages. Some fluvial erosion hazard mitigation activities can even lead to additional benefits that are harder to put a price tag on, like healthier rivers, enhanced recreational opportunities, improved aesthetics, and better fish and wildlife habitat.

Municipal adoption of a Fluvial Erosion Hazard overlay district is one of the best avoidance strategies for fluvial erosion hazard mitigation. An overlay district is an additional zoning requirement placed on a specific geographic area (in this case the FEH zone) without changing the underlying zoning. The degree of protection afforded by an FEH overlay district depends on the exact wording, but could include limits on structures, land use activities, or even vegetation. Limiting development within an overlay district based on the boundaries of an FEH map has two major functions. First, it will prevent development in hazardous areas, reducing costly flood losses. Second, it will prevent river corridor encroachment, which would increase overall fluvial erosion hazards and even impede a river's natural tendency to adjust toward a more stable condition.

Economic loss and risks to public safety caused by flood and fluvial erosion hazards are experienced most dramatically by individuals and local governments. Local governments are also the most appropriate entities to guide and implement efforts to mitigate these hazards. Armed with a better understanding of ongoing river processes, towns can take action to reduce flood and fluvial erosion hazards, which will enhance public safety, save money, and lead to healthier rivers.

The Vermont Agency of Natural Resources has sponsored a Stream Geomorphic Assessment (SGA) of the Castleton River. The data indicates that these streams have been highly modified in the past to make room for human investments such as roads and houses. These modifications have led to unstable stream systems resulting in increased flooding and erosion hazards and compromised habitat for aquatic species. For more information on Flood Hazard Areas and Fluvial Erosion Hazards see the Castleton Annex of the Rutland Region All Hazards Mitigation Plan.

Stormwater

The management of stormwater runoff is at once a simple concept and a complex problem. Precipitation runs off impervious surfaces rather than infiltrating naturally into the soil. The cumulative impact resulting from the increased frequency, volume, and flow rate of stormwater runoff events can lead to destabilization of downstream channels and can also result in increased wash-off pollutant loading to receiving waters.

Phosphorus and other pollutants in stormwater runoff are addressed to some extent for new developments in Vermont that require state stormwater discharge permits or state land use (Act 250) permits. Erosion control and stormwater management requirements are generally included as conditions in these permits and these practices help limit new sources of phosphorus loading caused by land development. However, these permits are required primarily for large projects, and many small developments may have a significant cumulative effect on urbanization and phosphorus loading to Lake Champlain. Few local programs exist in Vermont that adequately limit phosphorus runoff from new development.

Simple erosion control measures are possible for one or two family dwellings and accessory uses. These can include setbacks and buffers along surface waters, wetlands, and property lines so that no soil or water move into these areas. They can also include the use of stone check dams, silt fence, stormwater diversion ditches, designated areas of infiltration, seeding, and mulching. The following erosion control policies and requirements should apply to all development activity, including single family and double family residential development with accessory uses. Site visits from local regulatory individuals should be conducted to ensure compliance with these measures during construction, and to take appropriate enforcement steps if necessary.

Adequate erosion control is required on projects that go through the Act 250 development review process. However, most development is regulated not through Act 250 but through local zoning. At the municipal level, simple erosion control measures should be required for one or two family dwellings and accessory uses through the permit application process. The applicant should provide the following information on the applicable municipal permit application:

- The locations of any surface waters and wetlands.
- How the structure and any disturbed soil will remain at least 50 feet from these features.
- Where the limits of disturbance will be and how the applicant is minimizing the area of disturbance.
- Where silt fence or stone check dams will be installed.
- Where any roof and driveway runoff will go to infiltrate once the house or structure is complete.

Impervious Surface Minimization and Site Design

Impervious surfaces are surfaces which cannot be effectively penetrated by water. Examples include pavement, buildings, and gravel surfaces. There is a direct link between impervious surface coverage and phosphorus export to surface waters. Replacing natural cover and soils with impervious surfaces will lead to greater phosphorus loading to surface waters, increased runoff volume and velocity, and long-term, adverse hydrologic changes through flooding and channel erosion. Pavement areas such as streets, driveways, and parking lots, produce the most serious phosphorus runoff potential. Commercial, industrial, and high-density residential land uses often contain the most impervious surfaces used by vehicles.

Careful site planning can reduce the impervious area created by pavement and roofs and the volume of runoff and phosphorus loading. Careful site planning can also preserve the natural topography, drainage, and vegetation by preserving intact as much as possible the natural features that help retain runoff. Natural depressions and channels act to slow and store water, promote sheet flow and infiltration, and filter out phosphorus-bearing sediment.

Zoning codes and development standards affect the amount of runoff generated by projects by defining street widths, housing densities, setback distances, and other factors. Development standards should encourage minimization of impervious surfaces and use of open vegetated channels for stormwater runoff. Provisions for narrower streets, shorter or shared driveways, smaller parking spaces, and reduced setback distances from roads should be part of urban or suburban zoning regulations. Alternative modes of transportation such as mass transit, bike paths, and commuter parking areas should also be encouraged in order to reduce the need for new roads and parking.

Towns can use subdivision regulation standards to minimize the creation of new impervious surfaces (Vermont DEC 1999). Planned unit developments that concentrate development while maximizing open space should be encouraged. Open space preservation should maximize natural surface water corridors and buffers. Existing parking ratio requirements should be reviewed to see if lower minimum ratios are warranted and feasible. Maximum parking ratios should be established in order to curb excess parking construction. The initial subdivision proposal should ensure that lots with difficult access are not created.

Water Quality Threats in Lake Bomoseen

Development and Recreational Use

Development and increasing recreational use are inevitable threats to all of Castleton's lakes and ponds, particularly Lake Bomoseen. There are a number of regulatory methods available to the town in order to help mitigate the impacts of increased usage in and around Castleton's lakes and ponds. The town can ensure that setback requirements for lakeside dwellings are a sufficient distance from the water's edge to allow a greater filtering distance before run-off can enter the lake, establish vegetative buffer strips along the shorelines to help prevent run-off and erosion, and require that all year-round or enlarged lakeside dwellings have properly designed and installed septic systems.

A tremendous recreational, scenic, and natural resource, Castleton's Lake Bomoseen faces numerous threats to its long-term health.

Eurasian Watermilfoil

Another problem that has been identified in a number of Castleton's water bodies is the proliferation of the non-native aquatic plant Eurasian watermilfoil. A nuisance to swimmers and boaters, milfoil also threatens native plants that have provided traditional habitat for fish fry and other aquatic fauna. The use of the chemical herbicide Sonar has been tested in some Vermont lakes and a growing number of lake associations and towns have expressed interest in its application in their lakes. The only other current method of reducing the impact of milfoil is through periodic manual removal by divers and volunteers trained to do so. While manual removal is commonly practiced it is time consuming and difficult to cover the vast areas where milfoil is a problem. While both of these methods have had a degree of success, permanent eradication of water milfoil is nearly impossible as it has a tremendous ability to reestablish itself after having been removed.

Zebra Mussels

The stability of the Lake Bomoseen ecosystem is also threatened by the proliferation of the Zebra Mussels throughout the lake. The dark white-striped Zebra Mussels are generally about the size of a thumbnail. These mussels filter plankton, which is used as food by other organisms, and remove oxygen from the lake, both of which make it increasingly difficult for native aquatic species to survive. Zebra mussels have also been known to foul water intakes and can be carried by just about anything that has been in infested water, including gear, buckets, boats and trailers. To combat the proliferation of the mussels to other water bodies in Vermont, boaters are encouraged to thoroughly pressure-wash their boats with hot water and leave them out of the water and in the sun. Currently, Zebra Mussels have spread throughout the entire Lake Bomoseen ecosystem.

Ground Water

Groundwater is water that has infiltrated into the soil through sand, gravel, or rock. The areas where groundwater is stored are called aquifers. An aquifer is a geologic formation containing enough water to yield significant quantities to wells and springs. Places where groundwater is replenished by surface waters are known as recharge areas. Groundwater is drawn from aquifers through wells. Areas surrounding wells are called areas of influence. In the same way that pollutants introduced from watersheds can affect the water quality of streams, rivers and lakes, contaminants can be introduced into ground water supplies through areas of influence as well as through direct discharge to the subsurface (as through an abandoned well or leaky storage tank). Groundwater pollution in

rural areas is primarily associated with agricultural practices, road salt, and septic tank problems.

Groundwater is an extremely valuable natural resource of the Town of Castleton. It serves as the source for municipal and domestic water supplies, process water for industry, the treatment and dilution of wastes and the focus for many recreational activities. The Federal Groundwater Favorability Map shows the potential for groundwater is excellent from the Blissville area, following along-Route 4A to the Castleton Four Corners and then narrowing slightly and extending into the village area. This area has the capability of producing wells yielding sufficient quantities to meet municipal and industrial requirements.

Two large wells supply the village municipal water system. One is located on Mill Street. It is 35 feet deep and yields 130 gallons per minute (gpm). The other is located on North Road at Dewey Field. It is 25 feet deep and yields 210 gpm. (Yields may be limited by the capacities of the pumps.) The water supplying these wells lies within an unconsolidated gravel aquifer. Wellhead Protection Areas have been defined for both municipal wells and are depicted on Castleton Natural Resources Map 2. Three additional wellhead protection areas have been defined for privately managed, community water supplies located at Ft. Warren Trailer Park, at the Castleton Four Corners and in Blissville.

Wildlife Habitats and Fragile Areas

The benefits provided by wildlife habitats and other natural and fragile areas are numerous. They contribute to the economy by attracting travelers, recreation seekers, and wildlife admirers as well as add to the community's character and sense of place.

Wildlife habitats and other natural and fragile areas are mapped generally by the state and include deer wintering areas (commonly known as deer yards), bear habitat, migratory staging areas for waterfowl, fisheries, and sites of rare plants and animals. A number of these features are depicted on Castleton Natural Resources Map 1. Other types of wildlife habitat include large forested tracts capable of supporting larger mammals and "wildlife corridors" such as streams and windows that help connect the habitat areas together.

Castleton's largest deeryard is located on Cedar Mountain. Another large deeryard is located on the southern slopes of Blueberry Hill. The Blueberry Hill area is owned and managed by the Vermont Fish and Game Department.

There are both cold and warm water fisheries in Castleton that offer excellent recreational fishing for local residents and seasonal campers. Native and brown trout are found in the Castleton River and many of its upland tributaries including Belgo Brook. Bass, perch, pike and brown trout, as well as some cold-water species, are found in Lake Bomoseen. Continued health of these habitats depends upon the maintenance of stream banks and water quality.

Lake Bomoseen is the site of several Indian campgrounds and burial grounds. The lake also supports two rare or threatened macrophyte species: the pondweed *Potamogeton friesii*, which was last documented in 1990; and the horned pondweed *Zannichellia palustris,* for which only one record from 1977 exits. Given the extent of the Eurasian watermilfoil problem in Lake Bomoseen, both pondweeds are highly threatened. Glen Lake supports a population of *Potamogeton friesii,*

which was last observed in 1990. A major geologic fold is located on the southeastern shore of Glen Lake. This phenomenon is the product of the geologic forces, which folded and uplifted the town. It is of prime educational value to geologists and to the general public as well. The majority of the Glen Lake shoreline is in state ownership, as a component of the Lake Bomoseen State Park. Love's Marsh, attached to Lake Bomoseen, hosts *Ceratophyllum echinatum*, a rare Vermont plant. Eurasian watermilfoil has also infested both Glen Lake and Love's Marsh.

Approximately 40 acres of fine, second-growth oak-hickory forest is located along the east shore of Lake Bomoseen. This area is representative of the oak hickory forest association that is characteristic of the Taconic Range. Although the stand is dominated by oak and hickory, beech, birch and basswood are also present. The area is presently in private ownership.

Riparian Buffers

A riparian buffer is a band of vegetation between human land uses and surface waters that serves in many ways to protect the water quality and aquatic habitat of the adjacent river, stream, lake, pond, or wetland. A buffer needs to have certain characteristics in order to provide a phosphorus removal function. The most effective buffer is a natural, diverse, multi-layered plant community with a well-developed duff layer, uneven and uncompacted ground surface, natural obstacles (e.g., downed trees, rocks, branches), and no eroded or channelized routes for water to take through the buffer zone.

The phosphorus removal effectiveness of vegetated buffers depends on the width of the buffer zone, the hydrologic soil group within the buffer, the average slope of the buffer area, and the type of vegetation in the buffer. There is no minimum statewide setback or buffer requirement in Vermont. Vegetated buffers are required on projects adjacent to surface waters that go through the Act 250 land use permit review process, but for most development activity, buffer protection depends on local level decisions.

Towns have a clear legal authority under state statute to regulate riparian buffers and should adopt a minimum setback and buffer requirement on all rivers, streams, lakes, and ponds. This requirement can be included as one of the general regulations in the zoning bylaws, and then would apply to all projects town-wide. Alternatively, a buffer requirement could be included as a district standard, and the setback and buffer distance could vary depending on the nature of the district.

The Agency of Natural Resources Riparian Buffer Guidance (12/9/05) recommends a buffer zone width of 50-100 feet for streams and 100 feet for lakes, with greater or lesser widths possible when on-site evaluations are conducted by appropriate staff. The recommendations in the draft buffer procedure are directed at projects subject to Act 250 permitting or other Agency of Natural Resources regulatory programs.

The Vermont League of Cities and Towns has produced a model riparian buffer ordinance and technical paper to offer guidance to towns that are interested in adopting regulations that protect and conserve riparian buffers. The model riparian buffer ordinance can easily be modified and incorporated into existing land use regulations. It can also dovetail with the objectives of the National Flood Insurance Program and River Corridor Protection Plans.

Air Quality

Air quality has a great impact on the quality of life and the ecology of an area. Due to relatively low emission densities and relatively favorable meteorological conditions, ambient concentrations of locally generated pollutants are relatively low in Vermont by national standards. However, the Air Pollution Control Division has reported the Rutland area's particulate matter levels to be among the highest in the state, while 24 hour sulfur dioxide levels are higher than the Burlington areas. Nitrogen dioxide levels are comparable to or lower than other parts of Vermont. Overall, the Rutland Region's air pollution levels have not violated EPA standards for air pollutants. Town's like Castleton can help to maintain and improve air quality by promoting the use of public transit and carpooling, enforcing prohibitions on the burning of trash, and protecting forest resources, which can help to filter out a number of potentially harmful pollutants.

Open Space and Scenic Resources

In the course of planning for Castleton's future, it is important that the presence of high quality open space and scenic resources, broad scenic areas as well as scenic landmarks, are recognized and the integrity of such resources is preserved. Scenic resources have aesthetic, historical, and economic value. Siting of future construction as well as community facilities and infrastructure should always consider the potential impact on the aesthetic qualities of the community and preserve the undisturbed integrity, wherever possible, of Castleton's quality scenic and open space resources.

NATURAL RESOURCES GOALS, POLICIES, AND PROGRAMS

Agriculture and Forestry

Goal

Protect Castleton's farm and forest resources for future generations to enjoy.

Rationale

Clean air and water, as well as intact forests and working farms are essential to the health and quality of life of all living things that inhabit a community. Castleton is blessed with abundant natural amenities that remain largely unscathed by the polluting forces of the industrial world. 79.6 percent of respondents to the 2001 Castleton Community Survey stated that they believed Castleton should explore all measures available to protect farmland, open space, and forested areas within the town. This figure indicates that protection of natural resources is important to Castleton residents and vital to the continued welfare of the town.

Policy 1

Maintain and improve the quality of important soils, such as agriculture and forestry soils, when considering the future development of the town.

Programs

- Discourage development in areas of important agricultural and forest soils.
- Preserve farm and forest lands and maintain the working landscape through conservation, agricultural easements, and land acquisition.
- Encourage landowners to collaborate with the Cooperative Extension Service in the use of

Best Management Practices to assist them in learning more about how to employ these practices for soil quality protection.

- Promote the use of acceptable soil erosion control measures in development of slopes in excess of 8%.

Water Resources

Goal

Protect and retain the quality of Castleton's surface water, groundwater and wetlands resources and enhance opportunities for access, recreation, education and natural beauty in these areas.

Policy 1

Prohibit any development that will degrade water quality in Castleton.

Programs

- Establish and enforce setback and vegetative buffer requirements in Castleton zoning regulations for development along lakes, rivers, streams and wetlands.
- Enforce all provisions of Castleton's shoreland zoning requirements.
- Reduce erosion and siltation of shorelines and stream banks by requiring proper stabilizing measures for new construction under Castleton's site plan review.
- Require on site storm water management measures be implemented on all new construction sites under Castleton's site plan review.

Policy 2

Protect lakes, ponds, rivers, streams and wetlands from pollutants.

Programs

- Discourage application of lawn fertilizers and pesticides along lakeshores and streambeds.
- Establish and enforce setback and vegetative buffer requirements in Castleton zoning regulations for development along lakes, rivers, and streams.
- Keep abreast of the results of the Department of Environmental Conservation's water quality monitoring program in the Castleton River.
- Support the efforts of the Poultney-Mettowee watershed Partnership to educate the public about threats to surface water resources, best management practices to reduce human impact, and to work proactively to remediate and restore impaired, eroded or polluted surface water resources.

Policy 3

Reduce or eliminate ecological threats of non-native species encroachment in Castleton's surface water resources.

Programs

- Support efforts to educate the public on the importance of proper cleaning of boats and propellers to reduce the spread of Eurasian water milfoil in Castleton waters.
- Support the manual removal of Eurasian water milfoil from Lake Bomoseen and other areas in Castleton where it has become a problem.

- Monitor the results and overall ecological effects of Sonar usage in other Vermont lakes for consideration of its application in Castleton waters.
- Keep informed of DEC monitoring efforts in Castleton waters for additional non-native threats such as Zebra Mussels, and Water Chestnuts.

Policy 4
Restrict land development where water supplies are inadequate.

Programs

- Ensure that Castleton's zoning and future land use development plans direct development in areas where infrastructure and water supply are readily available.
- Encourage those using water from Lake Bomoseen to move to private wells.

Policy 5
Protect wellhead recharge areas from pollution.

Programs

- Promote awareness of potential groundwater contaminants.
- Encourage all fire districts and private managers of community water systems to gather the necessary information to develop Source Water Protection Plans and to identify potential sources of contaminants located within well-protection areas.
- Inventory culvert systems in the area of the town wells.

Policy 6

Ensure adequacy of groundwater supplies.

Programs

- Enact regulations in accordance with the recommendations of the fire districts and public comment.
- Encourage the development of guidelines to determine the capacity of town wells.

Policy 7

Control water distribution costs.

Programs

- Conduct a feasibility study to evaluate consolidating all existing fire districts into a single entity.

Flood Hazard Areas

Goal
Control development within areas subject to periodic flooding

Policy 1

Continue to review development in Flood Hazard Areas for compliance to the Castleton Flood Hazard Area Regulations.

Fragile, Unique Habitats and Open Space and Scenic Resources

Goal
Protect fragile, unique habitats and open space and scenic resources from the adverse effects and encroachments of development.

Policy 1
Ensure that all proposed developments that might affect these resources are referred to the appropriate state agency for comment and thorough visual assessments are provided prior to approval.

Programs

- Require applicants proposing projects that may have broad visual impact on Castleton residents (e.g. telecommunications and radio towers, wind turbines, etc.) to provide detailed view-shed analysis prior to approval.

Policy 2
Support education of the public as to the importance and sensitivity of these resources and measures that can be taken to reduce human impact upon them.

Policy 3
Support the conservation of large tracks of forest areas and open space so as to maintain critical wildlife habitat, ample corridors to accommodate seasonal migration patterns, and a scenic balance between the built and natural landscape.

Air Quality

Policy 1
Improve public awareness of air quality issues and steps that can be taken to reduce pollutants.

Programs

- Encourage the use of public transit and ride share programs.
- Strictly enforce prohibitions against the burning of trash.
- Promote awareness of alternative, less polluting, wood-burning technologies.
- Protect forest resources and review proposed development for impact upon air quality.

HOUSING

A sufficient supply of quality housing is necessary for any community that expects to have strong, healthy families and a stable workforce. Housing in Rutland County and the State of Vermont, particularly affordable housing, is becoming an increasingly critical concern. A 2009 report by the National Low Income Housing Coalition entitled *Out of Reach,* found that in order for Vermonters to afford a modest two-bedroom apartment, including utilities and without paying more than 30% of

income on housing, a household must earn $3,046 monthly or $36,553 annually.

According to the 2009 "Between a Rock and a Hard Place" report published by the Vermont Housing Council and Vermont Housing Awareness Campaign, the State of Vermont has the tightest rental housing market in the nation. The rental vacancy rate was 3.5%. The homeownership vacancy rate was 1.6%, the fourth lowest in the nation.

Homeownership in Vermont is also difficult for many credit-worthy households due to the high up-front costs of purchasing a home and the increase in median home sales prices in recent years. Castleton's housing situation is influenced by the presence of Castleton State College. In addition to the needs of permanent local residents, there is a demand amongst the student population for affordable rental units creating a larger market for rental housing than would be otherwise expected in a town of Castleton's size.

Castleton's Main Street is lined with many handsome, historic homes.

Existing Conditions

Age of Housing

According to the 2000 Census, 30% of Castleton's 2,107 total housing units were built before 1939, indicative of the historic nature of many homes in Castleton, particularly Castleton Village. However, with 1,354 housing units added since 1960, and the particularly significant growth during the housing boom of the '80s (562 units added), the majority of homes in Castleton are less than 40 years old. Figure 12 provides an overview of housing development in Castleton since 1939.

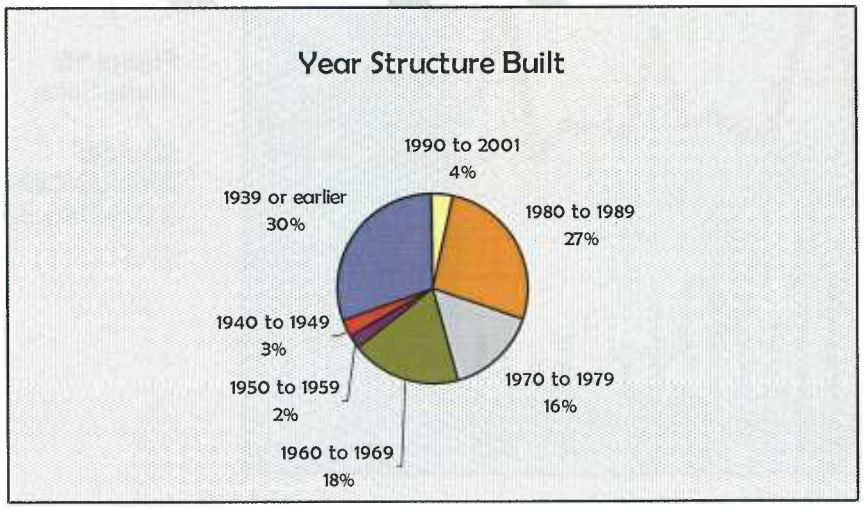


Figure 14:
Year Structure Built

Source:
2000 US Census

Housing Stock and Occupancy Status

Table 5 provides a summary of Castleton's housing stock and occupancy status in 1990 and 2000. 1,123 of Castleton's 1,550 total occupied units (72%) were owned in 2000 while 427 were rented (28%). The vacancy rate for both rental and owner units has decreased since 1990 indicating a tighter housing market. The number of seasonal homes in Castleton has decreased from 577 in 1990 to 491 in 2000, but still represents a substantial 23 percent of the town's housing units. The total number of housing units in Castleton has increased from 2,026 in 1990 to 2,107 in 2000, a total of 77 units overall. While most of these are likely newly built single-family and mobile homes, a number of the additional units could be the result of the conversion of preexisting homes into duplexes or multi-family units.

	1990	2000
Total Housing Units	2026	2107
Total Occupied Units	1361	1550
Owner Occupied	992	1123
Renter Occupied	379	427
Vacant Housing Units	665	557
Seasonal and recreational	577	491
Housing Stock		
Single Family	769	910
Duplex	15	35
Multi-family (3+ units)	N/A	20
Mobile Home	200	163
Other	8	0

Table 5: Housing Stock and Occupancy **Source:** VT Housing Indicators On-line

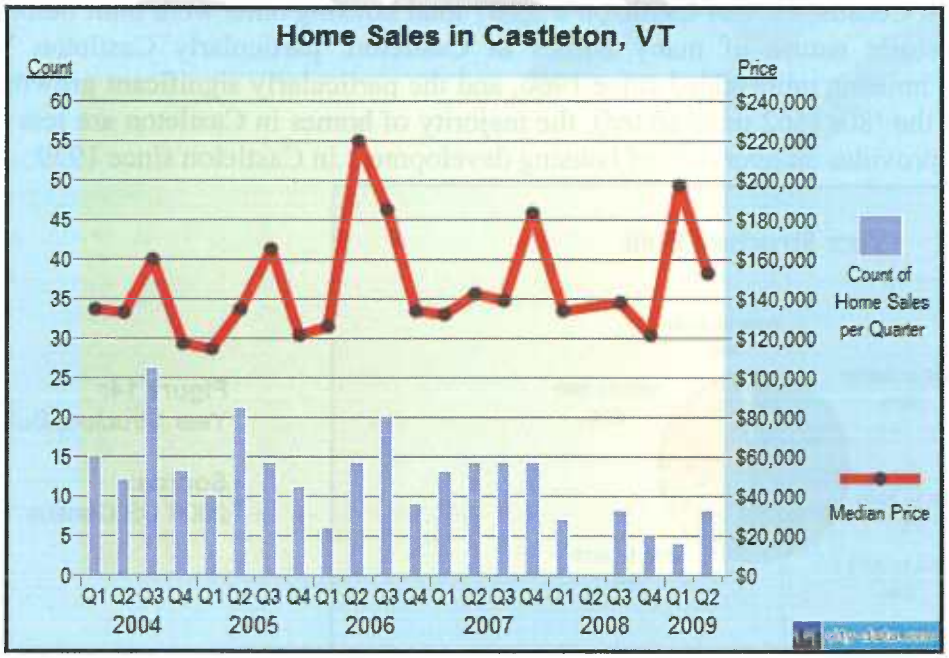


Figure 15: Home Sales

Source: 2000 US Census & City-Data.com

Households

Married couples represent the largest proportion of householders, or primary residents of a home, in Castleton. They accounted for 52.8 percent of all households in 2000, a drop from 58.9 percent in 1990. Despite the drop, however, they remain the most common household type in the Town. Residents living alone account for a larger proportion of the households in Castleton than elsewhere in the region, a statistic reflective of the large student and growing elderly population in the Town. The proportions of both female and male-led households increased between 1990 and 2000, as did the proportion of residents living in non-family households.

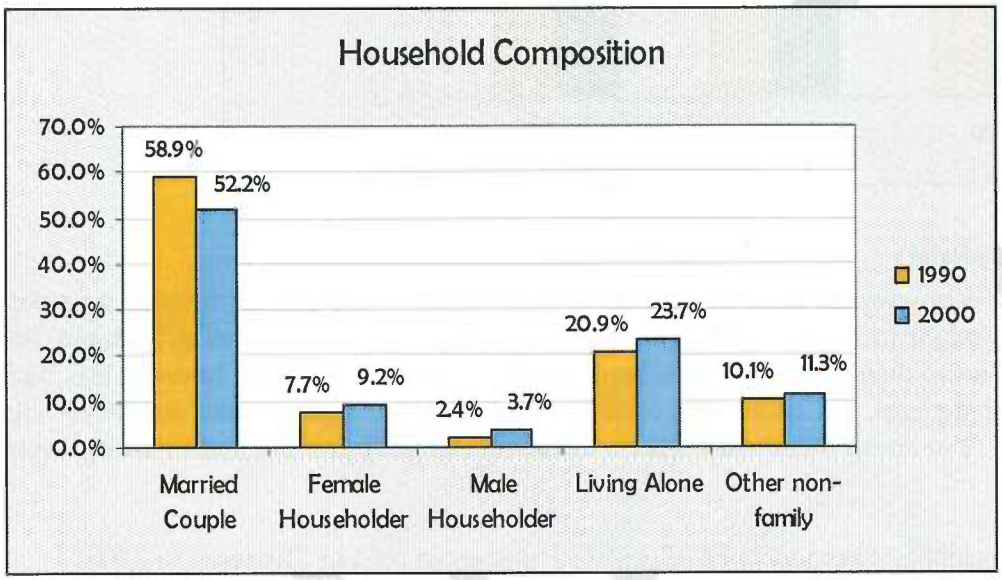


Figure 16: Household Composition

Source: 2000 US Census

Household Size

Two-person households continued to grow in Castleton in the 1990s. Whereas in 1980 they accounted for 30 percent of the total, in 2000, they had risen to 37.5 percent. The actual growth was 258; from 324 in 1990 to 582 in 2000. Meanwhile, the proportion and number of larger units (especially with four or five residents) has dropped dramatically.

The average number of residents per household in Castleton has shifted unusually in the past twenty years. Whereas there has been a national trend towards fewer persons per household, in Castleton, those figures are inconsistent. Among owner-occupied units, the average increased in the 1980s, but then decreased to below the state and national averages in the 1990s. Among renter-occupied units, the average has risen dramatically over two decades, from 1.77 to 2.26, above the regional and state levels. One likely reason for this increase in the average household size in renter-occupied units is the general increase in housing and tuition costs for students.

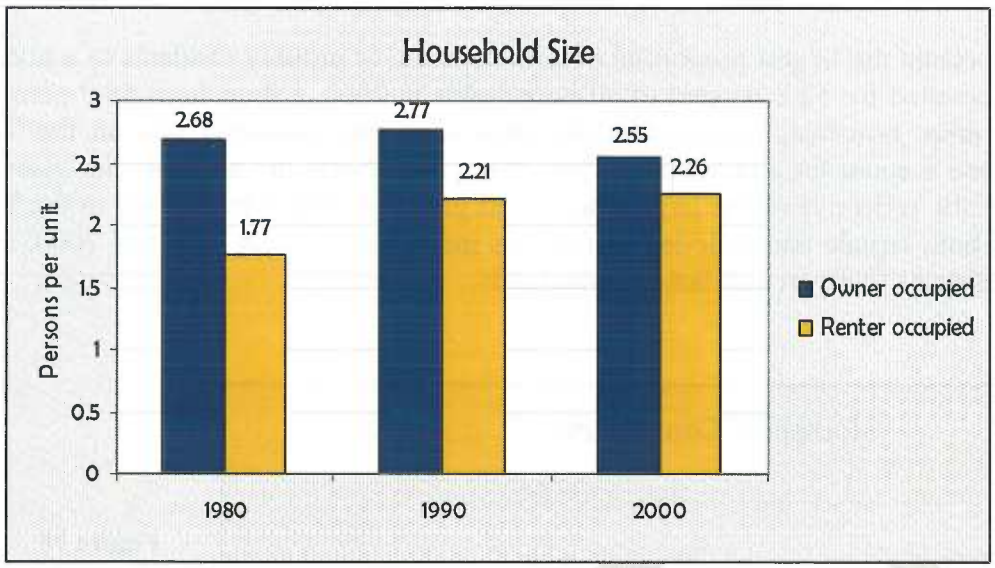


Figure 17:
Household Size

Source:
2000 US Census

Housing Affordability

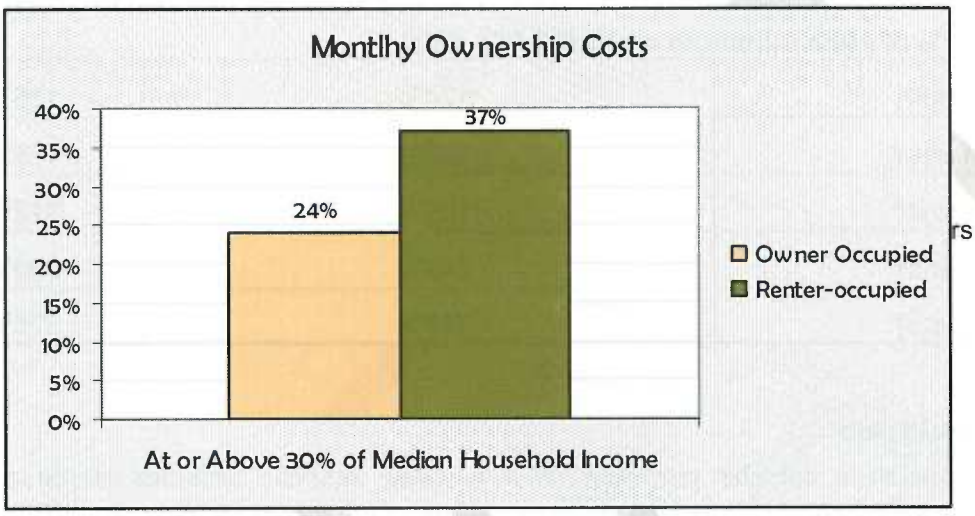
Affordable housing is an average price new home or older home in good condition that a person with an average income ought to be able to buy or rent. In order to be considered affordable, housing costs should be no more than 30%-35% of a household's income. For rental housing this includes: rent & utilities (fuel for heat, hot water, and cooking; electricity for lights; water and sewer charges; and trash removal). For home ownership this includes: mortgage (principal and interest), taxes, and property insurance.

Table 6 details the number, type and price of primary residences sold in Castleton in 2008.

Primary residences sold, 2008	**Castleton**	**Rutland County**	**VT**
... number sold	28	401	4,880
... average price of homes sold	$141,689	$173,970	$231,995
Number of primary residences sold, 2008	28	401	4,880
... single family homes	25	369	3,933
... condominiums	2	21	875
... mobile homes with land	1	11	72
Average price of primary residences sold, 2008	$141,689	$173,970	$231,995
... single family homes	$147,567	$176,830	$238,696
... condominiums	$73,050	$160,990	$213,603
... mobile homes with land	$132,000	$102,809	$89,512

According to the 2009 "Between a Rock and a Hard Place" report published by the Vermont Housing Council and Vermont Housing Awareness Campaign, the State of Vermont has the tightest rental housing market in the nation. The rental vacancy rate was 3.5%. The homeownership vacancy rate was 1.6%, the fourth lowest in the nation. A healthy, stable housing market will have vacancy rates of about 3% in the homeownership market and about 5% in rental.

It should be noted that costs for renters tend to consume a larger percentage of household income, as renters generally tend to have lower incomes than homeowners and have a larger representation of individuals over the age of 65 living on a fixed income. 2000 Census data for Castleton indicated that 37 percent of all renters and 24 percent of all owners spent more than 30 percent of their household income on housing.



rs Online

Figure 18:
Owners and Renters

Source:
2000 US Census

Another method of evaluating housing affordability is to look at fair market rents and the wages need to afford those rents. A modest two-bedroom unit in Rutland County rents for $788 per month. To afford that rent, an earner would have to make $15.15 per hour or $31,250 annually and work 62 hours per week. A minimum wage earner would have to earn 188% of the minimum wage of $8.06 per hour or work 87 hours per week to afford a two-bedroom apartment.

Fair market rent (HUD), 2009	Castleton and Rutland County	
... 0 bedroom unit (40%)†	$518	—
... 1 bedroom unit (40%)†	$678	—
... 2 bedroom unit (40%)†	$788	—
... 3 bedroom unit (40%)†	$1,042	—
... 4 bedroom unit (40%)†	$1,333	—

†County and town/village figures are identical, because HUD calculates county values only.

Table 7 & 8: Fair Market Rents and Housing Wage **Source:** National Low Income Housing Coalition

Housing wage, 2009	Castleton and Rutland County	Vermont
... 0 bedroom unit†	$9.96 or $20,720 annually	$12.50
... 1 bedroom unit†	$13.04 or $27,120 annually	$14.34
... 2 bedroom unit†	$15.15 or $31,520 annually	$17.57
... 3 bedroom unit†	$20.04 or $41,680 annually	$22.86
... 4 bedroom unit†	$25.63 or $53,320 annually	$26.31
Housing wage as % of state minimum wage ($8.06), 2009		
... 0 bedroom unit†	124%	155%
... 1 bedroom unit†	162%	178%
... 2 bedroom unit†	188%	218%
... 3 bedroom unit†	249%	284%
... 4 bedroom unit†	318%	326%

Special Needs Population

The special needs population for the purposes of a housing analysis includes single parent households, physically and mentally impaired persons, elderly and the homeless. In addition to requiring certain services that differ from typical single-family households (i.e. physical accessibility, assisted living) these groups also tend to be in the lower income category.
The 2000 Census indicated that Castleton had 367 householders living alone 124 of whom were over the age of 65. There were 94 female householders in Castleton in 2000 with no husband present, who had children living with them under 18 years of age and 36 such male led households. Each of these figures represent slight increases from 1990, indicating that Castleton's special needs population is growing, which could result in an increased demand for lower rent housing.

Castleton has publicly-assisted housing with limited subsidies. Castleton Meadows on Route 30, run by Berkshire Management, shelters 41 elderly individuals and has a 30-year subsidy due to expire in 2013. Parson's Hill on Route 4A, provides housing for 12 low-income families and had a 20-year subsidy that expired in 2002, with five-year renewable periods thereafter.

Impact of Castleton State College

Castleton State College affects the town's current and future housing inventory in several ways. In 2009 there were 1,800 full time and 200 part time students attending the College with housing facilities for approximately 1000 students. Thus, with on campus student housing at a premium, many students must either commute or rent apartments off campus. As a result privately owned residential dwellings have been turned into rental units by their owners to accommodate the

overflow. In some instances this has taken affordable housing off the market. Coupled with faculty housing requirements, the need for off campus student housing continues to put pressure on the town's ability to provide affordable permanent housing.

Future Housing Needs

According to the *Rutland Regional Plan*, "Changes in the Regions population structure and an ongoing need for additional housing units will continue to shape housing needs in the future. Among the key trends:

- In the next 15-20 years, a significant proportion of the County's population will retire. The result will be A need for assisted living facilities and accessible apartments.
- Household sizes have declined steadily over the past 30 years and are expected to do so into the future. The number of 1 and 2 person households will rise, making for a glut of larger homes and a need for smaller units.
- The Region's population will continue to grow, both in terms of year-round and seasonal residents. These influxes will add additional competition for homes and house sites and may inflate purchase and rental costs in certain communities.
- New construction in all towns will place additional burdens upon municipal services and continue to challenge town officials with how and where to accommodate housing.
- The availability of empty lots, both within existing urban and village centers and on their outskirts, is limited throughout Rutland County.

HOUSING GOALS, POLICIES, AND PROGRAMS

Goal

Provide a variety of housing options that meet the needs of diverse social and income groups and is located conveniently to employment, services, retail centers, and educational and recreational facilities.

Rationale

A sufficient supply of quality housing is necessary for any community that expects to have strong, healthy families and a stable workforce. Housing in Rutland County and the State of Vermont, particularly affordable housing, is becoming an increasingly critical concern.

Policy 1

Collaborate with not-for-profit housing organizations, government agencies, private lenders, developers and builders in pursuing options and meeting the housing needs of local residents.

Programs

- Establish working relationships with the Rutland County Community Land Trust, NeighborWorks of Western Vermont and Housing Vermont.

Policy 2

Ensure that individuals with special housing needs, including the elderly, those with physical or

mental disabilities, single parent households, as well as low and moderate-income households are able to attain suitable and affordable housing.

Programs

- Continue to allow accessory apartments within or attached to single-family residences.
- Locate affordable and special needs housing in areas with access to appropriate services.
- Promote single-family cluster housing, for example, town houses, condominiums and apartments.

Policy 3

Maintain and promote the historic character of housing in Castleton.

Programs

- Encourage home ownership and property upkeep efforts of Castleton residents.
- Ensure that new and rehabilitated housing is constructed to meet safety and sanitary minimum standards and coordinated with existing public services (water, sewer, and transportation networks).
- Maintain a detailed inventory of the condition of Castleton's historic housing units.

Policy 4

Enable our aging citizens to remain within the community by providing differing types of housing options.

Programs

- Review town's existing zoning regulations to allow for higher density housing while maintaining Castleton's historic character.
- Promote the development of commercial or private senior housing.

RECREATION, HISTORIC AND CULTURAL RESOURCES

Recreational opportunities, high quality historic resources and cultural activities are among the principal elements that contribute to the quality of life in a community. A town's historic and cultural resources are often integrally linked as history informs culture and many cultural activities in Vermont communities' center around historical appreciation or remembrance. So too are cultural activities, such as visiting a museum or touring a town's historic sites, recreational past-times as valuable to a community as its hiking trails or most popular swimming hole. Well-maintained historic buildings, located in cohesive recognizable districts, are not only attractive; they are good for business.

Numerous studies indicate that many people choose to visit Vermont because of its rich history and the unique local flavor and well-preserved ambiance of its towns and villages. Castleton residents echoed this sentiment in public forums and agreed that the town should explore all available measures to protect historic buildings and structures. Castleton is fortunate to be well endowed with countless recreational opportunities, historic resources, and cultural amenities as well as residents who recognize their important contribution to the community's overall quality of life.

Recreation

Castleton residents have many outdoor recreational opportunities available within a short walk, bike or drive including downhill and cross country skiing, swimming, boating, fishing, hundreds of snowmobile, hiking and biking trails and several excellent golf courses. Exercise facilities and a swimming pool at Castleton State College are also available to Castleton residents. Additionally, Castleton's close proximity to Rutland City provides easy access to indoor recreation facilities such as movie theatres, shopping centers, bowling alleys, fitness clubs, and restaurants and bars, many of which feature live music on the weekends.

Golf is just one of many outdoor recreational opportunities available in Castleton.

Castleton has an active volunteer Recreation Commission that coordinates activities for all ages. Youth activities include softball, baseball, soccer and swimming. The town has three ball fields and two soccer fields available for resident use. A walking path with exercise stations has been completed across from the Castleton Community Center. Programs are also offered specifically for teens on an intermittent basis. Adult programs include fine arts, crafts, educational and sports activities. Community activities include bus trips and a summer concert series.

Lake Bomoseen, with three state-access areas, is a large recreational asset offering swimming, fishing, boating, water and jet skiing in the warmer months as well as skating, cross country skiing, snowmobiling, and ice-fishing during the winter. The town-owned Crystal Beach, located on Route 30 along the lake's eastern shore, is a popular area for picnics, volleyball, sunbathing, swimming and other warm-weather activities for residents and visitors alike. Bomoseen State Park and Campground, located on the lake's western shore provide facilities for RV's and tent camping. The Edward F. Kehoe Green Mountain Conservation Camp at Lake Bomoseen, overlooking the southwest shore, offers summer camp activities for children and teens, under the direction of the Vermont Fish & Wildlife Department.

Castleton is fortunate to have a number of additional outdoor recreational amenities. A provisional access and parking area is available for use of Glen Lake located in the Bomoseen State Park just west of Lake Bomoseen. Abandoned railway rights-of-way serve as walking paths through the Castleton State College campus and South Street area. On Route 30 the town owns 65 acres of forest and another 39 acres located on Coon Hill in Hydeville. Castleton State College recently

donate a parcel of land on Sand Hill Road to the town and the ultimate use of this is under study. The town is evaluating the potential of these tracts for recreational use. Numerous commercial facilities offer horseback riding and stables, tennis, golfing, boat rentals and marine services.

Castleton State College's S.H.A.P.E. (Student Health and Physical Education) facility is available to the Castleton community at reasonable membership rates. The facility includes two racquetball courts, a fitness center, two recreational gyms and a pool. Programs are offered in aquatics and aerobics for all ages. The Athletics and Physical Education Departments, housed within the S.H.A.P.E. facility, also offer various sports programs for children. The College's Saturday Morning Program and swim lessons are also very popular. The College allows the town and school systems to use their athletic fields, when available, for sports programs at no cost.

Crystal Beach offers a variety of recreational opportunities.

Historic Resources

The majority of Castleton's historic sites are concentrated in the village area along Main St. (Route 4A). In addition to the many fine homes of historical and architectural quality, there are a multitude of distinguished commercial and industrial structures, such as stores, unique barns and saw and grist mill sites. Castleton is fortunate to have nine National Register districts: Crystal Haven, Eastern Lakeside, Southeastern Lakeside, Green Bay, Avalon Beach, Point of Pines, Hydeville, Castleton Corners, and Castleton Village. Published by the State Division for Historic Preservation, *The Historic Architecture of Rutland County*, details all of the historic districts and structures in Castleton. Listing over 100 sites, and providing photographs and detailed descriptions of many, this reference is highly recommended to anyone interested in finding out more about Castleton's cultural heritage and historic architecture. The Castleton Free Library, maintaining an archive of historic letters, photographs and articles is also a great source of information about the town's history.

Located in the heart of Castleton's Village Historic District, the Birds Eye Diner pays homage to a bygone era and remains a popular gathering place today.

Castleton has an active historical society, which sponsors frequent activities aimed at sharing stories and information about Castleton's past. The Higley Homestead on Main Street, a brick house built in 1811, is home to the Castleton Historic Society Museum. The museum's collections pertain to Castleton and include furnishings, paintings, costumes, documents, and photographs. The walls of the house feature original as well as restored stenciling. The historical society also owns the Old Cobbler Shop on Main Street and is open to the public on Colonial Day. The Society also puts on an annual potluck picnic for the public on the 3rd Thursday afternoon in June at the Hubbardton Battlefield.

Cultural Resources

Castleton State College hosts many cultural activities that are available to Castleton residents. The College frequently features concerts, plays, dance troupes and an occasional comedian. Topical forums and lecture series at the College also enhance the cultural experience in Castleton. Main St. in the old Castleton Village features a number of unique art galleries displaying a diversity of sculpture, jewelry, paintings, mosaics, quilts and other fine pieces created by the hands of Castleton residents. As is the case in many communities, Castleton's free library is another great cultural resource in town. In addition to its many books, periodicals, and archived newspapers the library often hosts nature oriented talks and activities for children and seniors.

Programs at Castleton State College offer frequent cultural and recreational opportunities.

Perhaps Castleton's most important annual cultural event is the locally organized Castleton Colonial Day. Sponsored by the Women's Club the event has been a Castleton institution since the 1920s. Each year hundreds of visitors and residents don traditional colonial garb and purchase tickets for guided tours of many of Castleton's privately owned historic houses. As they travel from house to house participants enjoy this splendid opportunity to pay homage to Castleton's cultural heritage as well as celebrate the thriving community spirit that still exists in the town today. Proceeds from the event support educational opportunities for Fair Haven Union High School and Castleton State College students.

Castleton has one of the most storied cultural histories in all of Vermont. Every effort should be made to protect and enhance the town's many diverse historic and cultural amenities.

RECREATION, HISTORIC AND CULTURAL RESOURCES GOALS, POLICIES AND PROGRAMS

Recreation

Goal
Maintain and enhance recreation resources and opportunities.

Rationale
Recreation takes many forms and means different things to different people. No matter what the form, much of our recreation takes place out of doors. Hunting, fishing, walking, biking, skiing, boating, or just enjoying a sunset depends on maintaining open areas and public access to them. These areas are an essential component of rural life and help define Castleton's character.

Policy 1
Retain and improve existing recreational activities for all ages.

Programs

- Retain the town forest lands located near Crystal Beach and on Coon Hill in Hydeville and develop a management plan for recreational use.
- Continue efforts to improve the quality of lake water.
- Explore opportunities for funding the improvement of existing recreational facilities.
- Maintain and improve public access areas and facilities for lake recreation.

Policy 2
Expand recreational opportunities within the town.

Programs

- Pursue opportunities for funding the development of new recreational opportunities facilities and activities.
- Work towards increased safety for cyclists by increasing signage and repainting road markings.
- Explore grant opportunities to fund multi-use paths for biking and walking.
- Promote development or expansion of passive recreation opportunities, such as creating or publicizing hiking and biking trails and ATV riding areas.
- Develop a more robust recreation program including after school and summer activities.
- Promote the creation of a recreational complex or center.
- Promote development of the land adjacent to elementary school for recreational uses.

Policy 3
Encourage commercial enterprises that provide or support recreational opportunities for Castleton residents and visitors.

Historic and Cultural Resources

Goal
Protect, maintain, enhance and promote historic sites, structures and artifacts important to the history and cultural heritage of Castleton.

Rationale
Historic sites are an essential link to Castleton's past, represent significant social and cultural investment, and are an important and valuable consideration in planning for the town's future. In their response to a community survey in the Fall of 2001, 78 percent of the respondents agreed that the town should explore all available measures to protect historic buildings, structures and sites indicating broad based support for the town's efforts in this capacity.

Policy 1
Enhance, conserve and protect the architectural integrity and character of village neighborhoods.

Programs

- Continue to emphasize the value of historic resources to the Castleton Select Board.
- Encourage improved collaboration between organizations in Castleton who share concerns about the protection and maintenance of the town's historic amenities.
- Consider the creation of a design control district for the village area and other areas and

structures of significant historical value.

- Assist the Historical Society in its inventory of historic resources.
- Support the efforts of the Historical Society to establish a dedicated funding source for the maintenance of several of Castleton's neglected small cemeteries.
- Encourage the adaptive reuse of historic buildings as commercial enterprises or for other purposes while preserving the historic integrity of the structure.

Policy 2
Maintain the quality and frequency of the many cultural events and activities available in Castleton.

Programs

- Support the efforts of Castleton State College and the Crossroads Arts Council to host high quality cultural programming at the College.
- Promote cultural activities through posting flyers and calendars of events in town owned buildings and assisting in other promotional activities as requested by the event coordinators.
- Support the Summer Concert Series on the Town Green.

TRANSPORTATION

A transportation network is comprised of all the forms, or "modes", of transportation that provide mobility to residents of an area. The compact settlement pattern of the old Castleton Village and State College area lends itself well to pedestrian and bicycle traffic, while the other settlement areas in Castleton are more spread out and automobile oriented. Passenger air and long distance bus service are available in Rutland City while access to rail transportation is available in Rutland City and now in Castleton. The Town shall provide a safe, efficient transportation system for residents and businesses in the community. Additionally, The Bus, provides local transportation to and from Castleton. The town also provides a Park 'n' Ride facility at Main Street and E. Hubbardton Road.

Regional Overview

The transportation system in the Rutland Region, though containing many diverse elements, is dominated by the highway mode. This highway mode consists of a trio of major arterial routes (US 7, US 4, and Vermont 103) connecting the Region to other regions, supplemented by a web of lesser collectors (e.g., Vermont routes 22A, 100, 30 and 3) and local routes.

Highways are classified by their functions in a community and are generally divided into arterials, collectors, and local streets. Arterials are designed to move people through an area in an efficient manner and with relatively few stops. They include major arterials such as Interstates and minor arterials such as Route 7 and Route 4. Collectors serve both "through movement" and local accessibility, providing connections between local roads and arterials. The primary function of local roads and highways is to provide access to adjoining properties.

In Vermont, highways are also characterized by their administrative classes: 1, 2, 3 and 4. Local towns have legal authority to define access on all Class 2, 3 and 4 roads; they share jurisdiction on Class 1 roads.

Class 1 town highways are those highways which form an extension of a state highway route (usually in a downtown area) and which carry a state highway route number.

Class 2 town highways are those highways selected as the most important highways (after State roads) in each town. As far as practicable they are selected with the purpose of securing truck lines from town to town and to places that by their nature have more than the normal amount of traffic.

Class 3 town highways make up the majority of local roads. The minimum standards for Class 3 highways are a highway negotiable, under normal considerations, all seasons of the year by a standard manufactured pleasure car. This would include, but not be limited to, sufficient surface and base, adequate drainage, sufficient width, and suitable for maintenance.

Class 4 town highways are all other town highways. Select Boards determine which highways are Class 4 town highways.

Castleton's Highway System

The most significant component of the transportation system in Castleton is its roads. The highway system provides vehicle circulation to all parts of the town and between neighboring communities. The highway system is necessary to facilitate travel to benefit the inhabitants of the town for commerce, safety, and leisure travel.

Castleton's road network includes 21.6 miles of State highways and 76.3 miles of highways in total. Like most towns in the region, Castleton has road segments in all four classes described above. Castleton's only Class 1 town highway, Route 4A, runs for 1.96 miles through the village area. The towns 17.86 miles of Class 2 highways include:

- Creek Road, VT 4A to Fair Haven Town Line
- E. Hubbardton Rd., US 4A to Hubbardton Town Line
- South Street, VT 4A to VT 30
- North Road, VT 4A to VT 30

All other town highways are considered Class 3 while 4.8 miles of Class 4 roads had been designated by the Select Board at the time of this writing.

US 4 is part of the regional network and has two exits in Castleton. The two major arterials in Castleton are VT 4A, connecting Hydeville, Castleton Corners, and the village area; and VT 30, connecting the east side of the lake and Castleton Corners. These are both under state jurisdiction. Collector roads include all of the Class 2 network, as well as Blissville Road, and Staso Road from South Street to the Town Garage and Solid Waste Transfer facility.

Surface Conditions

In general, whenever gravel roads begin to carry heavy traffic, with a daily traffic count exceeding 400-1,000, they should be paved. Where paving has been extended in the past, a good base has been provided, and these roads are performing adequately. Castleton's highway crew works hard to service the highway system as efficiently and effectively as possible and the quality of this service is reflected in the generally high approval rating of its performance. Those residents that do experience

maintenance problems in areas in which they frequently travel are encouraged to call these problems to the attention of the highway supervisor, town manager and/or Select Board so that these areas might be better serviced. The town is dedicated to repaving at least 2 miles of road per year, as budgets allow.

High Accident Locations

The main street, village area has been identified as a high accident location. Examining accidents individually reveals a number of types, mostly intersection accidents, rear-end collisions, and backing accidents. The existence of two busy intersections, at North/South Streets and at Elm Street creates a number of conflicts, as well as the right-angle parking between the post office and Mechanic Street on both the north and south sides of Main Street. The intersection of Route 30 with Rice-Willis Road (Brown's Four Corners) is also considered a high accident location. A caution warning light has been placed there to slow Route 30 traffic until the state addresses this intersection properly.

Parking

Currently, there is adequate parking in Castleton. The college generates a great deal of parking demand, but it is almost all accommodated by on-site parking. Occasionally, some does spill over onto Main Street.

Bridges

Castleton has 14 bridges in its highway network as well as many large culverts, which are not technically classified as bridges but function in much the same way from a maintenance perspective. Some of the town's bridges are severely lacking in adequate maintenance due to a lack of necessary funding. State funds and the current allotment are simply not enough to cover the considerable expense and labor required to ensure that bridges perform adequately. Dedicated funding for bridges would greatly help to alleviate this threat to the safety and convenience of Castleton's highway users.

Access Management

Access management involves a number of specific road design, land use management, and transportation management strategies to reduce the number of driveways and intersections on arterials and highways, and improve pedestrian access. The goals are to increase safety and mobility on existing roadways, better accommodate alternative transportation modes, and reduce the demand for new highways. Access management should be considered when reviewing all new development proposals in Castleton.

Towns in Vermont may regulate private access to local highways through "curb cuts", places where a private driveway or road cuts through curb (even though there may not be an actual curb in place) to gain access to town roads and highways. Authority to approve the proposed location of curb cuts lies with the Select Board, which bases its decision on safety considerations such as lines of sight, proximity to intersections, etc. Access management on state highways is governed by VTrans.

Bicycle/Pedestrian Transportation

As previously mentioned, Castleton's compact settlement pattern and sidewalk network, particularly in the old village and College area lend themselves well to bicycle and pedestrian traffic. The Town

should work in cooperation with the State to improve the roads to accommodate bicycle and pedestrian uses as well as explore options for recreational trails, which were also high priorities for attendees at the 2009 planning forums. One potential trail area, already popular with local residents although it is unimproved, is the abandoned railway corridor leading down to Poultney. The Castleton Planning Commission feels that improvement of this corridor, as a dedicated trail, would be an excellent recreational addition to the community.

Public Transit

The largest provider of public transportation to the area is the Marble Valley Regional Transit District (MVRTD) commonly known as "The Bus." The Bus provides service between Castleton and Rutland.

Air Transportation

Rutland Regional Airport, located in Clarendon, is one of ten state-owned and operated public use airports in Vermont. The nearest major airports to the Rutland market are Burlington International, located 67 miles to the north, followed by Albany International Airport in New York State, 80 miles to the southwest. The airport in Manchester, NH while farther away, also serves increasing numbers of residents due to the presence of budget airlines. Plans to improve service, increasing access to the Rutland region, are under review. The Rutland airport supports one scheduled air carrier, Cape Air, which is affiliated with Jet Blue and provides direct flights to Boston's Logan International Airport.

Rail

Access to passenger rail service is available to Castleton residents via AMTRAK at the newly renovated depot in town.

The renovated depot reopened in 2009

The Future: Castleton and the Region

In order to increase local participation in transportation planning in Vermont, the Agency of Transportation (VTrans) supports regional Transportation Advisory Committees, or "TAC"s. The members of the TACs are appointed by the towns and they work together to prioritize projects and issues for attention by VTrans. In Rutland County, the TAC is known as the Rutland Region Transportation Council (RRTC). Castleton actively supports the efforts of this regional transportation advisory committee and will continue to participate through its designated

representative.

Future Trends

- Rutland County's economy is changing from manufacturing to service industry. This fact, coupled with new development of housing and commercial uses located outside of town and village centers is increasing the demand for travel on the network.
- There is an increasing awareness of health, encouraging people and communities to make healthy lifestyle choices. As a result, more communities are recognizing that people want facilities for walking and bicycling.
- Transit ridership has been increasing due to increased fuel costs. Fuel costs will likely continue to rise which means an increased demand for ridership and other forms of transportation such as pedestrian, bicycle and rail will be necessary.
- As Rutland County continues to age, its large and increasingly elderly population will rely heavily on transit providers for their needs.

TRANSPORTATION GOALS, POLICIES AND PROGRAMS

Goal

Provide an accessible, cost-effective, balanced transportation system that meets the need for local and through movement of people and goods.

Rationale

Safe, convenient, and affordable transportation is almost as essential as food and water in today's mobile society. Public investment in transportation should be based on need, energy efficiency, and cost effectiveness.

Policy 1

Ensure the provision of adequate funding and a satisfactory maintenance schedule for Castleton's highways through effective management of *local* resources.

Programs

- Develop a management plan for highway pavement projects.
- Develop a management plan for maintenance of town bridges.
- Examine traffic volumes and usage annually on major thoroughfares within the town as the basis for paving consideration.
- Continue capital budgeting for highway department equipment needs.
- Encourage Castleton residents to bring specific locations in which service is currently inadequate to the attention of the Highway Supervisor and Select Board.

Policy 2

Ensure the provision of adequate funding and a satisfactory maintenance schedule for Castleton's highways through effective management of *state* resources.

Programs

- Maintain regular communication with the VTrans District Transportation Administrator as to the condition and maintenance requirements of Castleton's transportation infrastructure.
- Continue to Participate in the Rutland Region Transportation Council's efforts to prioritize transportation infrastructure projects in the region.

Policy 3

Improve safety of existing roads and highways.

Programs

- Continue to pursue enactment of a 25 M.P.H. speed limit in the village area.
- Dedicate a portion of the town's annual budget for the maintenance and improvement of Castleton's bridges.
- Create left turn pockets at Mechanic/Elm Streets, Seminary Street, and North Road/South Street
- Prohibit parking within 30 feet of the above intersections to provide for adequate sight distance.

Policy 4

Plan future roads to maintain existing land use patterns and contain development within established centers.

Programs

- Enforce existing specifications for road construction and maintenance.
- Consider access management when reviewing all new development proposals.

Policy 5

Work in cooperation with the state to improve roads to accommodate bicycle and pedestrian uses as well as explore options for recreational trails.

Programs

- Consider bicycle and pedestrian safety and uses when upgrading existing roads.
- Explore grant opportunities for the planning and improvement of the abandoned rail corridor in Castleton.

Policy 6

Consider options for the improvement of public transit service in Castleton to better meet the needs of all current and potential users.

Programs

- Conduct quality of service interviews with passengers on "The Bus" on several days over a period of a few months.
- Discuss the quality of public transit service at town meeting.
- Encourage use of passenger rail service at the Castleton Rail Station.

DRAFT

ECONOMIC DEVELOPMENT

Economic development, despite the challenges in a small community such as Castleton, should be an important part of a town's planning goals. Economic development, once the sole province of the private sector, is the process by which the community sets out to improve the *climate* for retaining old and attracting new businesses that support jobs and sustain tax revenues. Like many other municipalities in Rutland County, Castleton derives most of its revenue from the taxation of local property in order to support municipal services. While the town budget is small and the town services are limited, they are no less affected by local, regional and national economics. Castleton, like other Vermont communities, will need to be more active in managing economic growth to ensure the future of its tax base and quality of life.

Commercial Activity in Castleton

Castleton has a strong visitor economy particularly in the summer months when recreational activities revolving around Lake Bomoseen reach their peak. The presence of approximately 1,500 full time students at Castleton State College also helps support a healthy retail and restaurant economy in town. Castleton has had land available for light industrial development in recent years, but has been unable to attract significant interest from the business community to develop the land.

Economic amenities within Castleton include the educational institutions, Lake Bomoseen and the unspoiled beauty of the Town's unique landscape especially the undeveloped mountain peaks and ridgelines, and the attractiveness of the town for tourism, slate quarries, and small businesses. Castleton State College is the largest employer. It also provides the town with numerous cultural and recreational opportunities. While the college does not pay a property tax to the town because of its state-owned status, its contributions to the Castleton community are significant.

Lake Bomoseen is Castleton's most significant visitor attraction. Maintaining the quality of the Lake's water and the desirability of the shoreline and surrounding area must be priorities. Visitors expect decent lodging, food and recreational opportunities to be available to enjoy their visit to the area. Vacation (second-home) property represents a large proportion of Castleton's total fair market real estate value.

Industrial properties in Castleton include:

- Vermont Unfading Green Slate Company
- Hadeka AA Slate Company
- David & Shawn Camara
- Glenbrook Realty Partnership (Hubbardton Forge)
- Rutland Marble and Granite
- Luxury Homes
- Micro Components
- Morton Building Supplies

Most of the town's numerous small businesses are involved in service and retail oriented operations. There are fourteen eating establishments while the largest lodging operation has a capacity of approximately 120.

Castleton State College

The largest employer in town and situated within walking distance to the village area, the College has a significant impact on the economic wellbeing of the town because of the size of its student body, its faculty and the visitors it attracts. Local businesses that serve the needs of this potentially diverse population thrive. And by its very presence the College affords the community with educational and cultural opportunities that might not otherwise exist in the town. Additionally both students and faculty provide volunteer services to the local schools, recreational activities and other organizations within the town. The College also makes its facilities available for use by community members or groups whenever possible, minimizing in many instances the need for private or public development of these same facilities.

Employment Activity in Castleton

Figure 19 provides an overview of employment activity in Castleton. As the figure indicates, overall employment in Castleton continued to grow throughout the 1990s and 2000s. Service and Government (which includes Castleton State College) are the two largest employment trades and have grown steadily since 1990. Leisure and Hospitality and Food Service also contain a large share of employment activity in town and have grown steadily since 1990. All other trades have maintained their numbers or grown slightly except manufacturing.

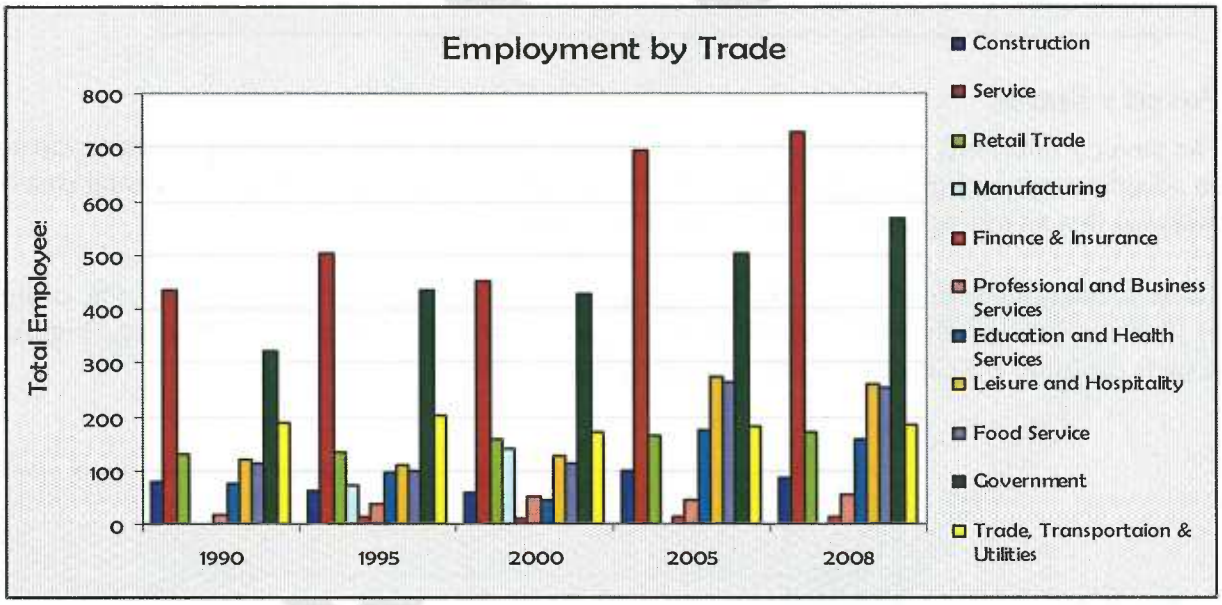


Figure 19: Employment by Trade **Source**: VT Department of Labor

The estimated Median Household Income (MHI) in Castleton was $50,561 in 2008. This is a 7.8% increase from the 1999 MHI of $39,615. Castleton's MHI is above the Rutland County amount of $46,558, however, below the State of Vermont amount of $52,104.

Unemployment Rate

The unemployment rate in Castleton has remained relatively consistent with the state and regional trends over the past decade. For the last three years, however, Castleton's unemployment rate has

been consistently above the rates of both Rutland County and the State. As of December 2009, Castleton's unemployment rate was 9.0% compared to the County rate of 8.2% and State of Vermont rate of 6.6%. Currently, only Rutland City (10.2%), West Rutland (12.1%) and Fair Haven (10.4%) have higher unemployment rates in the Region.

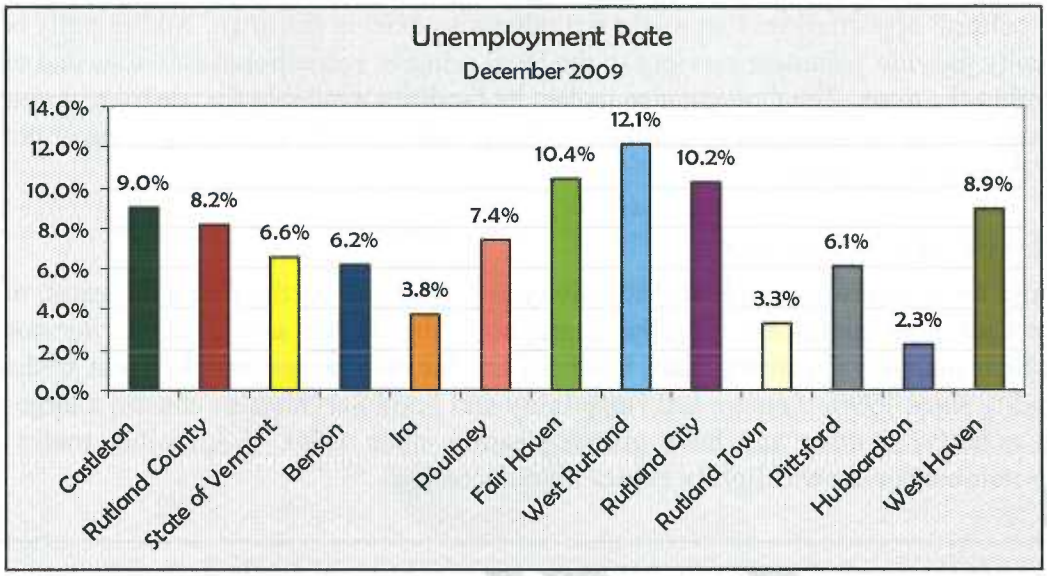


Figure 20: Unemployment Rate

Source: VT Department of Labor

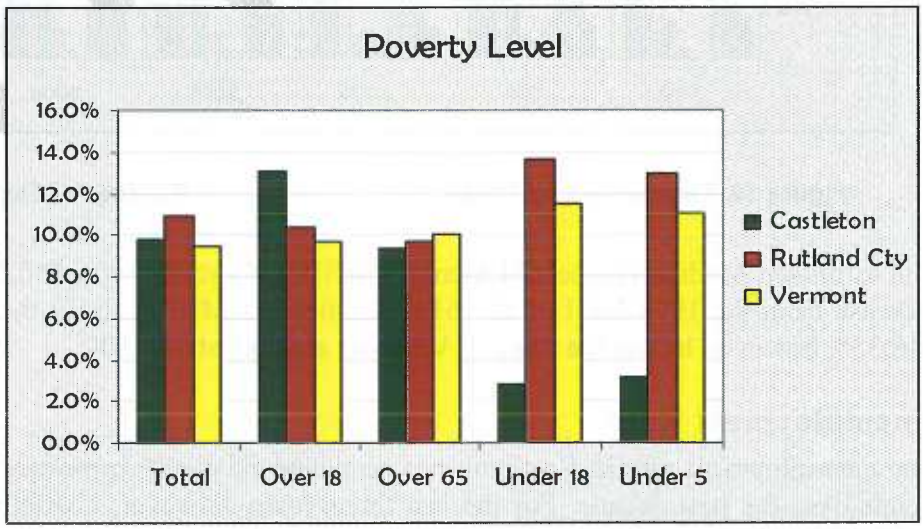
Poverty Status

The poverty threshold, or poverty line, is the minimum level of income deemed necessary to achieve an adequate standard of living. Determining the poverty line is done by finding the total cost of all essential that an average human adult consumes in one year.

The percentage of residents in Castleton living below the poverty line in 2007 was 9.8%, compared to 10.9% in Rutland County and 9.4% in the State of Vermont. Source: City Data.org. Figure 21 depicts the 2000 US Census Poverty figures by age group.

Figure 21: Poverty Level

Source: US Census, 2000



Economic Development Challenges facing Castleton

- The ability to find qualified employees is constraining business growth across industry sectors. Employers have revealed that the availability of a trained workforce is limiting job growth. Skilled professionals set to retire are not easily replaced by the existing, younger workforce. This has resulted in some companies foregoing opportunities for expansion.
- The town's topography and extensive hills and mountain network place limitations on which areas can appropriately handle growth. In addition, there is a tension between the need for new development and the desire to maintain the rural character of the area.
- The national economic downturn and tight credit markets will have negative impacts on state and local commercial activities for years.

Economic activity in historic and modern structures

Future Trends

The future of economic activity in Castleton will probably not differ much from what is present today. The increase in agricultural operations statewide and nationwide could add more farms to the community; however, due to the lack of land available, the increase will not be significant.

- According to the 2000 Census, the population of the Rutland Region is experiencing a high outmigration of youth. The results have been a limited rate of population growth and an aging population as a whole. Twenty to thirty-five year olds accounted for only 12% of the county's total population in 2000.
- The trend in commercial buildings has to become larger and more generic. This is a challenge to the aesthetics of the town, which relies heavily upon its rural community character to maintain its identity and to attract visitors and new residents and businesses.
- The trend in Rutland County is toward smaller, diversified farms, which rely upon direct marketing and contract growing for regional consumption. While this has led to an overall increase in the number of farm operations in the region, the land needs are different than dairy farms. This could result in a different landscape than wide-open meadows associated with the region's history.

ECONOMIC DEVELOPMENT GOALS, POLICIES, AND PROGRAMS

Goal
Maintain a sound fiscal balance for the town, encourage reasonable, functional, orderly development of facilities, utilities and services, and encourage the growth of the "informal economy" including home occupations, local artisans, craftspeople, and seasonal businesses, especially tourism and the vacation and retirement home markets; and also expanded commercial development.

Rationale
A balance of public and private investment is necessary to provide a sound economic base for Castleton. The town remains well suited for professional offices seeking a quiet, scenic location in close proximity to Rutland. The town's many natural and recreational amenities and close proximity to New York State, the Canadian border, Vermont's largest ski resort as well as the presence of Castleton State College, make the area very attractive for the continued expansion of the visitor economy. The cost of the provision of services for new or expanding businesses must be made based on the available tax revenues and reasonable public and private investment. Castleton's government is charged with providing for orderly growth and services at a rate that does not unduly tax the residents, yet protects the health, safety, and welfare of the those same citizens.

Policy 1
Support existing businesses and industry.

Programs
- Support the Lakes Region Chamber of Commerce and Castleton's Economic Development Committee.
- Support regional projects and development groups.

Policy 2
Encourage growth and a balance of small, locally-owned businesses and light industry to stimulate the local tax base and improve local employment opportunities.

Programs
- Collaborate with the Rutland Economic Development Council to find new businesses for the community.
- Encourage hotel/motel development
- Approve tax stabilization agreements.
- Develop an industrial park.
- The town should take advantage of the CVPS economic development initiatives.

Policy 3
The rate of growth should not exceed the ability of the residents of the town to pay for necessary services and facilities.

Programs
- Encourage businesses to locate in Castleton that will help reduce the tax burden and provide local employment.

Policy 4
Public investments should further the purposes of this plan in providing for orderly and fiscally responsible growth.

Programs

- Utilize the Town Plan and implementation program as a reference manual to help guide economic growth and development in a manner that benefits all sectors of the community.

Policy 5
Diversification of the economic base is a primary concern of local government. Economic development should be pursued so as to provide maximum economic benefit with minimum negative environmental impact.

Programs

- Maintain the scenic and recreational attractiveness of the area.
- Service the shores of Lake Bomoseen with town sewer wherever possible in order to protect this significant natural resource and expand services that support the visitor economy.
- Explore options to recruit businesses to occupy space vacated by companies that have recently relocated or plan to do so in the near future.
- Expand hotel/motel and entertainment uses on Lake Bomoseen.
- Encourage the following types of industries:
    a) Technology Based
    b) Sustainable Products
    c) Light Manufacturing
    d) Light Agriculture

IMPLEMENTATION PROGRAM

The Castleton Town Plan is a comprehensive guide concerning the manner in which the town wants to accommodate future growth as well as maintain the features of the community that make it special. Goals, policies and programs have been described in the areas of community facilities and services, education, protection of natural resources, recreational amenities and historic features, housing, transportation, economic development and prospective land use. Implementation of the Town Plan is a local responsibility and can only be accomplished through a continued commitment on the part of the Castleton community to see the many considered ideas in the Plan come to life.

Adoption of the Town Plan

The first step towards implementation of the Town Plan is its adoption as public policy. As required by Section 4384 of the Vermont Planning and Development Act, the local Planning Commission must hold at least one public hearing on the proposed Plan. The Planning Commission must then make any necessary revisions and submit the proposed Plan to the Select Board. Under Section 4385 of the Act, the Select Board must hold one or more public hearings on the proposed Plan. After the final public hearing, the Plan shall be adopted by the Select Board.

Maintenance of the Plan

The Castleton Town Plan should be periodically reviewed and, if necessary, amended to reflect new developments and changed conditions affecting the town. In accordance with Section 4387 of the Act, the Plan shall expire five years from the date of its adoption, unless the Select Board readopts it. Adoption of the Plan is, therefore, the first step of a continual planning process.

Public Investment

Public investment is one of the most direct means to implement a Plan. By investing in infrastructure, for example, a community can encourage development where and when it wants. Public investment can include spending for water, transportation, education, solid waste, recreation, open space, housing, and more. Funds to pay for public investment can come from a variety of sources, including, but not limited to, taxation, user fees, and governmental transfers (state aid) and grants.

Public Education

Regulation is neither the only nor necessarily the best way to implement a Town Plan. Successful implementation of a Plan also depends on the voluntary actions of residents and landowners. Public education regarding the Town Plan helps to convey the importance of local resources, facilities, and services and increases peoples' understanding of the need to plan for the future. The Castleton Community Fair was a successful starting point for the real integration of the community into the implementation of the Plan. To continue this momentum and capitalize on the success of the Fair, the Castleton Planning Commission recommends that the Town hold a similar event in the spring of 2003 that will focus more specifically on implementing the Goals, Policies, and Programs set forth in the adopted Plan.

DRAFT

ACKNOWLEDGEMENTS

Castleton Planning Commission
Robert Day
Frank Giannini
John Hale
Joseph Bruno
Sean Seguin

Castleton Select Board
Tom Ettori, Chair
Cristine Smith

Edward O'Shea

Castleton Development Review Board
Gordon Chader
George Pritchard
John Hale
Ted Molnar
Joseph Mark, Alternate

Castleton Town Manager
Charles Jacien

Rutland Regional Planning Commission Staff

Adopted by the Planning Commission - June 8, 2010
Adopted by the Select Board - August 23, 2010
Effective: August 23, 2010
Amended Plan Adopted by the Planning Commission – August 30, 2012 (Version #1)
Rejected by the Select Board - October 22, 2012
Amended Plan Adopted by the Planning Commission - January 8, 2013 (Version #2
Rejected by the Select Board - March 11, 2013
Adopted by the Planning Commission - April 23, 2013 (Version #3)