Town of Rutland
Municipal Plan

Adopted 10/24/14

VISION

Our collective vision for the future is for Rutland Town to continue to be a vibrant community for the benefit of both its own citizens and the regional population. It will afford opportunity to live and prosper with very desirable homesteads, excellent education and recreational foundations for families, protected property rights with respect for personal freedoms, and economic vitality, respecting environmental concerns and providing for the public safety.

The Town will enhance the attractiveness of the region so that commercial and industrial business will locate and expand operations in the area to provide good job opportunities. The ripple effect will allow organizations to maintain and implement latest technology and permit expansion of our professional base in banking, law, education, medicine and other services.

As ingenuity of our population continues to develop in the 21st Century, we shall meet the challenges presented and continue to keep Rutland Town responsive to its people through the generous contributions of work and time given by Town officials and volunteers.

TABLE OF CONTENTS

INTRODUCTION 2
COMMUNITY PROFILE 3
LAND USE 6
TRANSPORTATION 10
EDUCATION 15
ECONOMIC DEVELOPMENT 17
PUBLIC UTILITIES AND FACILITIES 23
EMERGENCY MANAGEMENT 26
FLOOD RESILIENCE 28
RECREATION 33
TELECOMMUNICATIONS 34
ENERGY 35
NATURAL RESOURCES 44
HOUSING 53
CHILD CARE 55

INTRODUCTION

A thorough analysis of a community's population, housing, and economy is an important feature of a municipal plan. In addition to helping determine how much a community has grown, such information allows a municipality to estimate whether or not (and if so, how much) it is likely to grow in the future; identify what impacts growth (or lack of growth) could have on its services and land use; and decide how best it might respond to growth trends.

A public hearing was held by the Planning Commission on September 4, 2014, and by the Selectboard on 10-9-14 and on 10-22-14. In addition, the Solar Facility Siting Standards were the subject of numerous other public meetings and hearings. All meetings and hearings were open to the public and broadcast on PEG TV.

The 2014 Town of Rutland Municipal Plan (the Plan) is an update of the 2009 Town Master Plan. The Plan addresses the need to balance growth in the Town of Rutland with neighborhood quality of life considerations. Through the public hearing process and open to the public Planning Commission meetings, Rutland Town residents have had the opportunity to offer their thoughts and recommendations on the proposed Plan.

The Plan is to be implemented through land use bylaws currently in effect (Town of Rutland Subdivision Regulations) and as a document to be given substantial deference in the Act 250 and Section 248 application review process. Clear community standards are provided in this document, which are referenced by the supporting Future Land Use and Natural Resources Maps. Non-regulatory tools to implement the plan include: instituting and maintaining a Capital Expense Budget and Program; creation and/or nomination of historic districts; working with public and private partners to seek growth center designation from the State of Vermont; and working with active groups in land conservation to preserve land that has a clear value to the community.

COMMUNITY PROFILE

Physical Characteristics, Demographics, and Economy

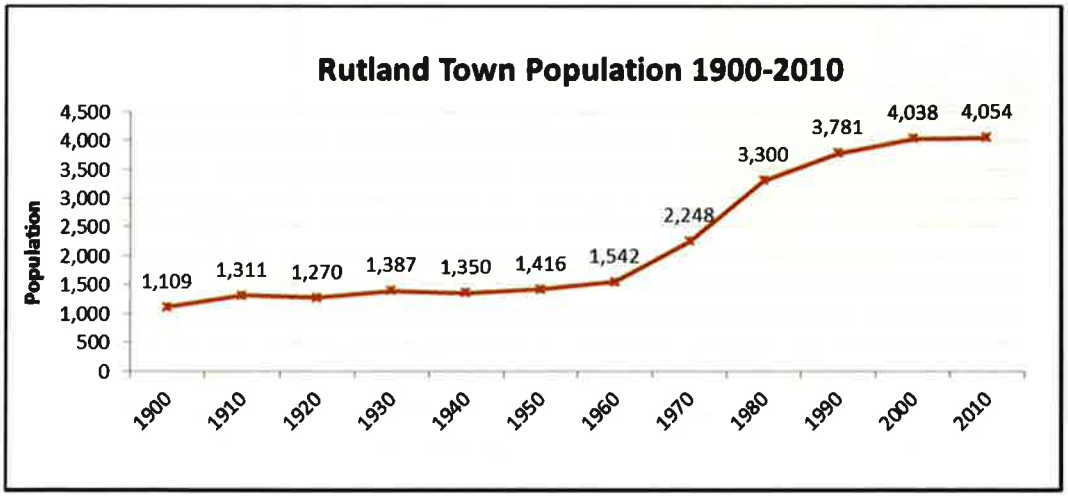
Rutland Town is located along the Valley of Vermont and has varying topography. It is bounded on the north by the Town of Pittsford, on the east by Mendon, on the south by Clarendon, and on the west by West Rutland and Proctor. Contained within the center of the Town lies Rutland City.

According to the US Census, Rutland Town's population was 4,054 in 2010, the 3rd largest in the Rutland Region.

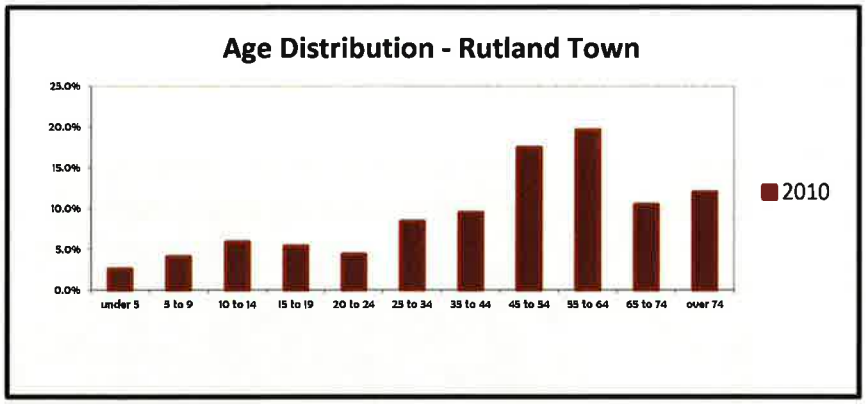
The Town's population increased substantially in decades prior to 1990. According to the US Census, the number of residents more than doubled between 1950 and 1990. Over the last 30 years, however, the rate of population growth has slowed.

Residents age 45 to 64 comprise approximately 40% of the town's population, an amount that corresponds with regional and state figures.

Rutland Town comprises the non-shaded area in the above aerial view.



Source: US Census



Source: US Census

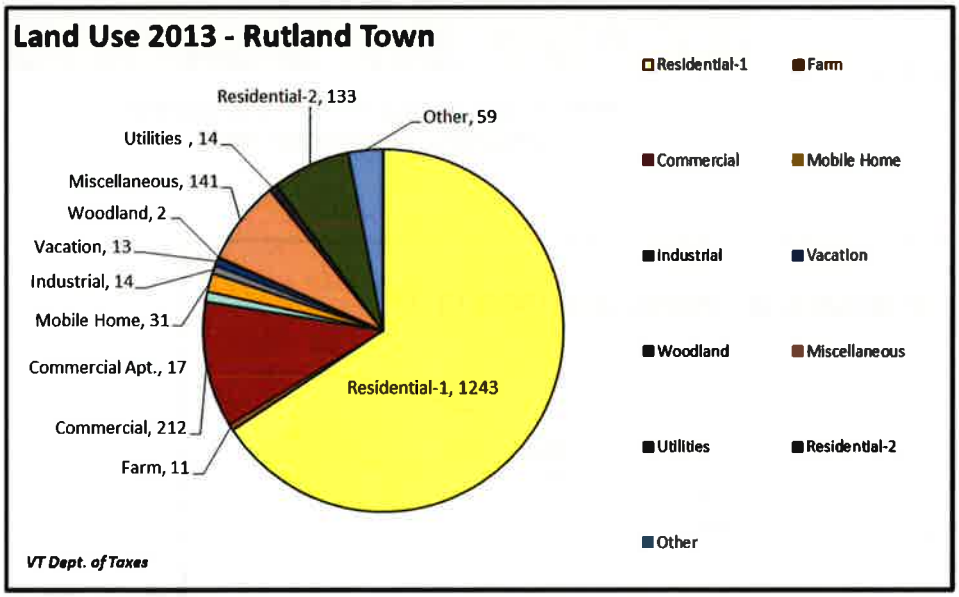
The average household in the community is becoming smaller, reflecting national and statewide trends. In 1980, there were 3.04 persons per household. In 2010, this figure dropped to 2.27. Similar to population, the number of households increased dramatically from 1960 through 2000, with the rate of growth slowing since 2000.

Source: US Census

Households and Household Changes, Town of Rutland

	1960	1970	1980	1990	2000	2010
Households	431	661	1087	1,412	1,691	1754
Percent Change			53%	64%	30%	20%

As a result of the increase in housing units and proximity to Rutland City, and its related service, approximately 75% of the land in Rutland Town is used for residential uses. Corresponding with the town's growth trends, however, 71% of Rutland Town householders have moved into their units since 1990.



Source: VT Dept. of Taxes

The Town of Rutland has a thriving economy boasting high median household incomes and low unemployment rates. Median Household Income in Rutland Town is higher than the State of Vermont and national median, while the unemployment rate is the third lowest in Rutland County at 2.1%.

This Plan is compatible with the plans and development trends of its bordering communities and of the Rutland Region. Each of these plans has been regionally approved, indicating that they all have been consistent with the State Planning Goals outlined in 24 VSA Chapter 117.

The Town borders seven municipalities, including Rutland City, which it surrounds, and touches one other. Land development trends and plan policies relating to the borders of each of these communities has impacts on all towns involved.

An analysis of the plans of neighboring towns reveals several key trends and compatibilities:

- Rutland Town encircles the City of Rutland. Together, the two municipalities are home to the largest concentration of homes, businesses, and services in the Rutland Region. The Plan for Rutland City calls for "gateway" commercial districts at its borders with Rutland Town on Routes 7, 4, and Business 4, along with a primary business area in its downtown core. Uses encouraged in these gateway districts are compatible with those proposed in Rutland Town. Both towns promote prosperity, ease of transportation mobility, and sensitivity to natural resources. The two communities have worked well together to resolve key issues such as Route 4 & 7 upgrades, and should use this Plan as a model for future joint efforts.

- Clarendon shares Rutland Town's southern border and road connections along US Route 7 and Creek Road. The two plans promote differing land use policies in the immediate area of Route 7; while Rutland Town proposes industrial and commercial uses, Clarendon proposes Residential and commercial activities. East and west of the Route 7 corridor, proposed uses are closely related.

- West Rutland borders Rutland Town at its southwestern edge. The two communities share the Business Route 4 corridor and agricultural and residential lands. Both communities' plans encourage commercial development in the vicinity of Business Route 4. The two towns should coordinate efforts to encourage business development and traffic safety, and to explore opportunities for improved bicycle and pedestrian amenities.

- Proctor borders Rutland Town at its northwestern edge and shares VT Route 3. The border area also includes the greatest concentration of undeveloped land in Rutland Town, stretching from Pine Hill Park in Rutland City to near the edge of Proctor's village. Proctor's plan calls for forested areas in the highlands and agriculture along Route 3.

- Pittsford shares Rutland town's northern border and the US Route 7 corridor. The area is primarily agricultural and rural residential in both communities, but is slowly converting towards greater concentrations of commercial and residential uses. Both towns will need to pay special attention to balancing their goals of promoting affordable housing, businesses, and agricultural activities.

- Chittenden and Rutland Town share a small border in the Town's northeast corner. The area has been popular for residential development in recent years. The Town of Chittenden adopted a Town Plan in 2010.

- Mendon forms Rutland Town's eastern border; the two share the US 4 corridor and a large stretch of watershed leading from the Green Mountains into the Otter Creek. The two also share Town Line road, whose eastern side is in Mendon and western side is in Rutland Town. The two will need to coordinate efforts in this area to ensure compatibility. The Route 4 area is designated for commercial activity in both communities, with Mendon slowly developing a village area near the Rutland Town border.

LAND USE

The purpose of the land use districts in this chapter is to guide development in Rutland Town. The Land Use Districts are shown on the Land Use Map entitled Town of Rutland, Vermont Land Use Map, which is incorporated by reference as a part of this Plan.

The districts were derived from the combination of the following:

(1) Existing land use patterns.

(2) The goals and objectives for accommodating future growth.

(3) The suitability of the Town for various prospective land uses.

Throughout the districts, a choice of housing, employment, shopping, educational, recreational, and cultural opportunities should be provided, with support from economical and high quality governmental and public utility facilities and services.

Information in this chapter and corresponding map shall be used to guide development, especially during the Act 250 and Section 248 review process. In absence of zoning regulations, uses and density requirements described below shall be adhered to for all new development. Any Act 250 application or Section 248 application for a Certificate of Public Good proposing a use of land not in compliance with the land use districts described below and the Land Use Map will not be supported by the town.

Land Use Districts

[Any use not stated as "permitted" is prohibited.]

R40A - Neighborhood Residential - Minimum lot size: 40,000 square feet.

Description: Areas of existing settlement within the town, selected adjacent areas, and areas suitable for modest density residential development.

Purpose: To maintain the traditional social and physical character of these areas.

Permitted uses: Single and two-family dwellings, accessory facilities, and home occupations. One housing unit and one accessory unit are permitted per lot.

Development Density. Up to one residential unit and one accessory unit per 40,000.

R40B - Planned Residential - Minimum lot size: 40,000 square feet where water and sewer service not provided; 20,000 square feet where water and sewer service provided.

Description: Lands which are suitable for higher residential intensity development because of their suitability for on-site sewage disposal and/or the presence of municipal sewer systems.

Purpose: To provide for higher density residential development in areas that are suitable for such development due to the capability of the land or the presence of public sewer facilities.

Residential development occurring in this district should provide for a variety of dwelling types and, through the use of clustering/PUD techniques and their associated higher density, allow for reduced construction costs, conservation of open space and prime agricultural soils, and buffering between lower and higher density development.

Permitted uses: Same permitted uses as allowed in R40A District, plus multi-family structures containing up to four (4) units, and residential clustering/PUDs

Development Density. Up to four residential units per 40,000 or 20,000, depending on water and sewer infrastructure.

Clustering/PUDs: Residential development may be clustered according to the following provisions:

Minimum Development Size. The minimum lot size for a clustered residential development/PUD is 80,000 square feet.

Open Space Requirement. Residential development may be clustered provided that at least one half of a parcel is designated as open space; the remaining portion is considered the parcel's developable area.

Development Density. Up to six residential units per 40,000 or 20,000, depending on water and sewer infrastructure.

Maximum Number of Units per Structure. The maximum number of residential units per structure is six.

R40C - Residential/Commercial - Minimum lot size: 40,000 square feet

Description: Areas with residential uses and light commercial activity.

Purpose: To allow for a mixture of single-family residential, two-family residential, recreation and light commercial uses.

Permitted uses: Same as permitted in R40A, plus professional and recreation uses.

Development Density. Up to two residential units and one accessory unit or one commercial use per 40,000 square feet.

AH - Affordable Housing - Minimum lot size: 40,000 square feet where water and sewer service not provided; 20,000 square feet where water and sewer service provided.

Description: Lands which are suitable for higher residential intensity development because of their proximity to sewer service and transportation with potential for affordable housing development.

Purpose: To provide for higher density residential development at densities high enough to allow affordable per unit costs in areas that are suitable for such development due to the capability of the land or the presence of public sewer facilities. Residential development occurring in this district should provide for a variety of dwelling types and, through the use of

clustering/PUD techniques and their associated higher density, allow for reduced construction costs, conservation of open space and prime agricultural soils, and buffering between lower and higher density development.

Permitted Uses: Same permitted uses as allowed in R40A District, plus multi-family structures containing up to six (6) units, open space, residential clustering/PUDs, and retail/commercial.

Development Density. Up to six residential units per 40,000 or 20,000, depending on water and sewer infrastructure.

Clustering/PUDs: Residential development may be clustered according to the following provisions:

Minimum Development Size. The minimum lot size for a clustered residential development/PUD is 80,000 square feet.

Open Space Requirement. Residential development may be clustered provided that at least one half of a parcel is designated as open space; the remaining portion is considered the parcel's developable area.

Development Density. Up to eight residential units per 40,000 or 20,000, depending on water and sewer infrastructure.

Maximum Number of Units per Structure. The maximum number of residential units per structure is eight.

AGR40 - Agricultural - Minimum lot size: 40,000 square feet.

Description: Areas that are presently being farmed or are prime farmlands with potential to be farmed.

Purpose: To protect existing farms from development and to maintain prime farmland for future farming purposes.

Permitted uses: Agriculture, single-family residential and recreation.

Development Density. Up to one residential unit per 10 acres.

RR10 - Rural Residential - Minimum lot size:10 acres.

Description: Areas which are presently wooded or open and have rural character that should be conserved through large lot development.

Purpose: To provide for residential and other compatible uses at low densities. Open space preservation and other techniques for preserving the rural character of these areas are encouraged.

Permitted Uses: Same permitted uses as allowed in R40A District, plus recreation uses, and two-family residences associated with agricultural uses.

Development Density. Up to one residential unit per 10 acres.

CNS - Conservation - Minimum lot size: 25 acres.

Description: Special forest and/or open lands which are of particular ecological or aesthetic importance. Includes public watersheds as well as certain lands that are not well suited for residential or commercial development because of topography, soil composition, or wetlands.

Purpose: To preserve certain forest and open lands in a relatively undeveloped state and/or to protect public watersheds, wetlands, and water supplies.

Permitted uses: Same permitted uses as allowed in R40A District, plus recreation uses.

Development Density. Up to one residential unit per 10 acres.

C - Commercial - minimum lot size: 40,000.

Description: Land that is suitable for commercial uses.

Purpose: To house a variety of retail and other commercial services in suitable locations to meet the needs of local and regional residents. The character of the area should be protected and enhanced with the provision of landscaping and screening. The scale of development in this district should be compatible with adjacent commercial and residential structures.

Permitted uses: Commercial uses and all uses permitted in R Districts.

IC - Industrial/Commercial- Minimum lot size: 40,000 square feet with sewer service, 80,000-sq. ft. without sewer service.

Description: Existing industrial and commercial developments that are serviced by public sewer and have access to arterial highways and/or rail facilities.

Purpose: To accommodate the expanding retail and industrial sectors of the town. Provides for employment opportunities in manufacturing, warehousing, research and development, and commercial uses which specifically serve the industries or their employees in areas serviced by good transportation facilities and public utilities.

Permitted uses: Industrial and commercial uses including light manufacturing and distribution of goods and materials, and all uses permitted in R Districts.

Municipal/Government/Utility

Description: Lands currently used or planned to be used, for municipal and governmental purposes, including schools, town offices, fire stations, police headquarters, recreation facilities, landfills, salt storage facilities, highway maintenance garages, cemeteries, and fire districts. Includes developed and undeveloped land owned by electric utilities.

Purpose: To accommodate essential public facilities and services and utility uses and facilities.

Permitted Uses: Municipal/ governmental uses and utility related uses.

TRANSPORTATION

Introduction

Transportation systems are perhaps the most influential force on land use development patterns. Communities that implement sound transportation and land-use policies are better able to provide revenue to the town, manage growth, improve the efficiency of travel and contain infrastructure costs. Transportation improvements provide greater accessibility to certain parcels of land, which increases the likelihood they will be developed as property values rise. As land use becomes more intense, the amount of travel generated increases, which spurs demand for additional transportation improvements for all modes of travel.

Goal:

To provide for a safe, convenient, economic, and energy-efficient transportation network that respects the integrity of the residential and natural environments, including public transit options and pedestrian and bicycle infrastructure.

Description of the Local Transportation System

The transportation system serving Rutland Town has many different components. These components include facilities, such as highways, streets, and bridges, as well as services, such as public transit.

Highways: Highways in Rutland Town include locally-maintained facilities such as Post Road, East Pittsford Road, and Creek Road, which are maintained by the Town (which has an elected Highway Commissioner, a crew of two, and contracts for various services). They also include state-maintained facilities such as Vermont Route 3 and US Routes 4 and 7. Under the administrative classification system established by Vermont transportation statute, Rutland Town has 8.8 miles of US highways on US 4, 7 and Business Route 4 and 1.7 miles of State highways.

According to the Vermont Agency of Transportation, one-half of Rutland Town's highways are class 3 highways and one-quarter are class 2 highways. There are no class 1 highways and a small percentage of class 4 highways. Class 1, 2 and 3 roads are those for which the town receives State aid grants, based on the number of miles in the town.

Highways by Administrative Class

Source: VTrans	US Highway	State Highway	Class 1	Class 2	Class 3	Class 4	Total
Miles	**8.84**	**1.73**	**0.00**	**15.05**	**31.48**	**1.6**	**58.7**
Percent of Total	**15.1%**	**3.0%**	**0%**	**25.6%**	**53.6%**	**2.7%**	**100%**

Under the functional classification system, highways are classified as arterials, collectors, or local streets: In this system, routes are assigned to categories that reflect their function and overall importance.

Arterials: Arterials located in Rutland Town include US 7, US 4, Business Route 4 and Vermont 3. These highways, which are designed to accommodate volumes of more than 500 vehicles per hour, carry the bulk of through-traffic. Protection of the traffic-carrying function of arterial highways is of great importance to the Town. In addition to serving as conduits for inter-state and inter-regional transportation and commerce, they also carry large numbers of commuters, shoppers, and visitors. If they become congested or otherwise decline in performance, there can be serious economic and social impacts.

Collectors: Collector roads in Rutland Town include North Grove Street, East Pittsford Road, Post Road, West Proctor Road, Town Line Road Cold River Road, Stratton Road and Creek Road. These roads provide for through traffic on a local level. They connect arterial and residential streets and link Rutland Town with Rutland City, Pittsford, Chittenden, Mendon, Proctor, and Clarendon.

Local Streets: Local streets form the balance of the roadway network in Rutland Town. They are designed to allow access to adjacent land uses, not to carry through traffic. Careful attention to this design principle is needed to ensure that residential streets are not transformed into collectors.

Bridges: Bridges are critical components of the highway system, allowing travel over significant physical obstacles such as rivers, wetlands, and ravines. Bridges are also challenging to maintain and expensive to replace. Thus, they are a major focus of transportation planning and management.

Like highways, bridges may also be classified according to their state or local jurisdiction, with ownership generally determining responsibility for maintenance. Fortunately, repairs to many local bridges are eligible for at least some state funding under the state's local bridge assistance program.

Bridges with spans of 20 feet or more are generally eligible for federal support, while bridges (or culverts) with spans greater than 6 feet, but less than 20 feet are generally eligible for state funding. Every two years VTrans inspects all bridges over 20 feet. Bridges on town highways are the towns' responsibility and those on state roads are owned by the State.

Transit: Not all residents own automobiles or have access to those vehicles at all times. For these reasons and others, public and private transit services are an important component of the transportation system.

Public transit in Rutland Town is provided by the Marble Valley Regional Transit District (MVRTD), commonly known as "The Bus". In operation since 1976, MVRTD is the largest non-urban transit system in Vermont. MVRTD provides public fixed-route services, deviated fixed route and ADA complementary para-transit to the general public in Rutland Town, Rutland City, and Proctor. It also provides para-transit services such as subscription for persons who cannot access fixed route services.

Services to Rutland Town residents are somewhat limited. MVRTD's fixed routes that serve the Town are as follows:

- The South Route operates south of the City, extending south on US 7 as far as the Green Mountain Plaza and Diamond Run Mall, as well as the Ludlow and Manchester Routes.
- The North Route operates north of the City of Rutland, briefly crossing into Rutland Town on North Main Street (US 7).
- The Proctor Route operates between Rutland City and Proctor, with stops along US Business 4A in Rutland Town.
- Middlebury Connector operates north of Rutland City and will deviate ¼ mile to serve parts of Rutland Town.

MVRTD's other fixed route, the Hospital Route, does not cross into Rutland Town. Commuter buses serving Killington Ski resort make stops in Rutland Town.

In addition to fixed route and para-transit services, MVRTD provides transportation to persons eligible for mobility services under Medicaid, which benefits a number of Rutland Town residents. Medicaid transportation is provided using MVRTD vans, taxis, and reimbursed volunteers. There are also commuter routes which extend service to Fair Haven and Manchester.

Finally, MVRTD also provides contract services to human service agencies including the Southwest Vermont Council on Aging, Rutland Mental Health, Vermont Psychiatric Survivors, Bridges and Beyond, Social and Rehabilitative Services (SRS), and many others.

Rail: Rutland Town residents are fortunate to be served by both passenger rail service (via Amtrak's Rutland City station) and freight rail service (via Vermont Railway and its subsidiaries: the Clarendon and Pittsford Railway and Green Mountain Railroad). Rail can be an important resource for transporting goods through the region while avoiding the impact of additional truck traffic.

Bike and Pedestrian Facilities: Bicycle and pedestrian travel are important elements in creating a balanced and sustainable transportation system. Bicycles are an efficient means of transportation, while walking provides basic mobility for residents. Currently, most land development patterns in the town discourage bicycle and pedestrian facilities.

There are no existing formal bicycle facilities designated in the town and pedestrian facilities are limited to sidewalks. Pedestrian facilities, where they are available, are discontinuous and therefore do not provide connections between key facilities. Furthermore, many roads used for cycling lack shoulders and /or have sharp drop-offs at the road edge.

Parking: Parking, or the lack thereof, has not been identified as a problem. New commercial development in the Town has ample parking available. It is important that new developments consider public transportation and pedestrians in parking lot layouts so access throughout these is amenable to other modes.

Areas with Lack of Safety: Another way to identify deficiencies in the transportation network is to examine accident records to identify locations where there appear to be more accidents than would normally be expected. Such locations would be an indication of "geometric" features that are deficient and need to be addressed.

The State of Vermont Agency of Transportation examines sections of highways and intersections for accident rates. Those which exceed a critical rate, determined statistically, are considered high accident locations. High Accident statistics are often used in conjunction with severity statistics, which reflect the severity of the economic loss resulting from the accidents at a location.

Air Transportation: The Rutland Southern Vermont Regional Airport located in Clarendon serves private air service as well as commuter/passenger service to Boston. Funding to secure necessary upgrades to the facility is difficult at both the Federal and State levels. A mix of private and public funding may be necessary to ensure the long-term survivability of this facility. The Town Select Board supports the continued Federal and State funding for the airport.

Transportation Advisory Council: The Town of Rutland Select Board has a "pipeline" for local transportation infrastructure projects through the Transportation Advisory Council (TAC), an adjunct council of the Rutland Regional Planning Commission. The Town has representation on the Council and TAC meetings are generally held on a monthly basis. The TAC serves to promote and support, throughout the Rutland Region, an integrated transportation system that facilitates commerce and communication and enhances quality of life, by involving citizens and local officials in the identification and development of solutions to transportation problems

Community Land Use Impacts of Transportation: Land use and transportation clearly influence each other. As has been summarized in the Rutland Region Transportation Plan, one of the most significant impacts of transportation on land use is as a catalyst to land development. In Rutland Town, the most obvious manifestations of the impact transportation has on land use are the areas of development along US 7 and US 4 entering Rutland, particularly from the east and south.

Access Management: Roads function to provide mobility and accessibility to adjacent land. The efficiency and safety of all town roads are directly affected by the frequency and location of points of access or curb cuts. The design of curb cuts also is important in terms of drainage and road maintenance. Consistent and comprehensive access management policies are necessary to balance the needs of motorists, pedestrians, bicyclists, and other users of the roadways system to travel in safety and with sufficient mobility.

Strategies for improving access management include:

- Adequate sight distance at a driveway or street intersection.
- Distance between curb cuts and distance between driveways and nearest intersection.
- Shared driveways.
- Appropriate driveway width.
- Driveway turnaround area (for small existing lots fronting the corridor).
- Appropriate on-site parking, shared parking, and parking design.
- Sizing of area and/or bays for loading and unloading.
- Landscaping and buffers to visually define and enhance access points.

Access Master Plan for US 7, Rutland Town: The Access Master Plan for US 7 is a Master Plan for future access breaks to the Limited Access section of US 7 in Rutland Town. The

Town of Rutland Selectboard adopted the Master Plan in 2012, which was reviewed by the Transportation Board under consultation with VTrans, the Federal Highway Administration (FHWA), and the Rutland Regional Planning Commission (RRPC). The Access Master Plan for US 7 can be found in the Rutland Town Office.

Cut-through traffic: Cut-through traffic occurs when drivers take "short-cuts" through residential neighborhoods and other areas in order to minimize the amount of time it takes to reach their destinations. Rutland Town has historically had many areas affected by cut-through traffic. Noise and disruption are some of the most significant negative impacts of cut-through traffic.

Air Pollution: Another impact of transportation is air pollution. In Rutland Town, transportation-related air quality impacts are greatest where traffic volumes are highest. Thus, the most problematic areas include the US 4 and US 7 corridors, particularly those areas where vehicle delays are greatest.

Property Values: The net effect of numerous negative transportation impacts is the lowering of property values. While no locally specific analyses have been prepared to measure the financial ramifications of transportation impacts, anecdotal evidence suggests that the value of some types of properties, such as residential, may become depressed. However, commercial and industrial properties benefit from close proximity to major highways. The lack of proximity to an interstate system also affects property values for certain businesses.

Transportation System Issues

In addition to being affected by local transportation problems, Rutland Town is very much affected by regional transportation issues as well. The following paragraphs describe the most recent examples.

Rutland Bypass: Construction of a highway bypass around Rutland City was evaluated for decades at a cost of several million dollars. Rutland Town's position regarding the construction of a bypass around Rutland may be stated as follows: The construction of a bypass is not necessary given current and likely future traffic volumes; furthermore, even if built, a bypass would not solve congestion problems on US 7. The Town believes that, instead of a bypass, the Agency of Transportation and Federal Highway Administration should pursue a "limited" upgrade of US 7 and US 4. This limited upgrade would provide much sought-after congestion relief at several key intersections but with far fewer impacts than would result from the construction of a bypass—and at much lower cost. There are no current plans to construct the bypass.

Rutland Rail Yard Relocation Project: Studies, proposals and alternative designs have been developed to relocate the Rutland Railyard. The goal of this is to increase travel time through the City of Rutland, which presently is hampered by the fact the City yard has outgrown its functional capacity. It is the position of this Plan that, if the Rutland Rail Yard is moved, that its relocation should be extremely sensitive to the infrastructure needs of the region and Rutland Town. At the present time, there are no proposals to relocate the Rutland Rail Yard within the Town of Rutland.

Transportation Strategies

The Town of Rutland continues to support local and regional transportation planning to address transportation issues in the Rutland Region. Improved transportation would

enhance economic development and commerce opportunities within the Town of Rutland and the region.

- Continue to develop a transportation capital program that refines and advances the aims of this Plan.
- Require that streets and roads are designed to be accessible for all modes of transportation.
- Ensure that VTrans provides adequate funding and a satisfactory maintenance schedule for Rutland Town's roads and bridges by actively participating in the Rutland Regional Transportation Council (TAC) planning.
- Continue to develop and complete the improvements to existing Routes 4 and 7.
- Employ best practices of access management by requiring, when appropriate, joint use of curb cuts, restricting curb cuts where alternative access is appropriate and requiring that all new roads, all private roads and driveway intersections with town roads meet the Town's safety and design standards.
- Reduce transportation energy consumption and trips.
- During Subdivision review, encourage an interconnected network of streets and roads for all development.
- Implement park and ride lots as appropriate, working with the state where desired.
- Encourage public transportation access for all multi-family development.
- Encourage provisions for bicycles and pedestrians during subdivision review.
- Participate in any future Rutland City Rail yard relocation planning.
- Pursue state and federal funding to study, design and build a new local road connecting the signalized Cold River Road intersection with Farrell Road in an effort to preserve capacity on US Route 7 and to better facilitate the movement of vehicles for pleasure and commerce.

EDUCATION

Introduction

Educational facilities are a focal point of land use planning. They serve functions that support strong communities, however are the most expensive public facilities to operate and maintain. Rutland Town currently pays 83% percent of total property tax revenues for public education; therefore it is an important component of the Plan.

Goal:

To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all Vermonters.

Although school planning is the domain of the School Board, the Planning Commission and the Municipal Development Plan have a very important and necessary role in planning for the future of local schools. Development in Town can have implications on school populations. The Planning Commission should work closely with the School Board to identify

school capacity and ensure that any population growth in the Town is accommodated by school facilities.

Educational facilities are an important factor in future land use planning. Historically, schools have served as a focus of community identity and gathering. In many instances, local schools have served as meeting places for social organizations. Future growth should be focused near schools and schools shall be accessible for all modes of transportation.

Rutland Town Elementary School

The Rutland Town School Board presently operates one school: Rutland Town Elementary. The school is located off of Post Road and accommodates students in kindergarten through grade eight.

The current Rutland Town Elementary School building was opened in 1967 and then expanded in 1971. Over the years there have been numerous additions and expansions. The school currently consists of 31 classrooms plus additional space for administration, music, art, science, technology education, computers, family and consumer sciences, physical education, cafeteria, library, and other uses. Students in Early Essential Education (pre-Kindergarten) through grade eight are served at the Rutland Town School.

Enrollment and Capacity: The student enrollment at Rutland Town School was 349 in 2013-2014, up from 347 the year before and well above the recent low of 321 in 2007. Figures over the past seven years have fluctuated, with a high of 368 students in 2010. The number of teaching staff stood at 36 in 2014, plus 14 instructional assistants.

According to school officials, the practical capacity of Rutland Elementary is 500 students, a level that could be increased if space located on the second floor of the most recent addition is finished off. Given current enrollments and growth rates, facility capacity is not likely to present problems for the community in the near future.

Administration: Rutland Town Elementary School is part of the Rutland Central Supervisory Union along with Proctor High, Proctor Elementary, and West Rutland School (K-12). The Union is headed by a Superintendent. Each town in the district has its own school board and each school has its own principal. Elections for school board are competitive and there is excellent parent support and involvement in school programs.

High Schools and Vocational Training

Rutland Town has no high school of its own. The Town pays students' tuition at public schools. Typically students attend schools in the neighboring communities of Rutland City, Proctor, Brandon, Clarendon, or West Rutland. In addition, some students attend Mount St. Joseph Academy, a private parochial high school. High School students wishing to attend

other non-parochial high schools may do so, with the town covering costs up to the amount charged by the most expensive local high school.

Secondary Schools Accessible to Rutland Town High School Students

Rutland High School: Rutland High School is located at the corner of Stratton Road and Woodstock Avenue in Rutland City. The school, which serves grades 9 through 12, offers a diverse curriculum including advanced placement (AP) coursework and honors classes. During the 2013-2014 school year, Rutland High School had an enrollment of nearly 870 students. There are a total of 99 town residents attending Rutland High School.

Mill River Union High School: Built in 1975, Mill River Union High School occupies a forty-acre parcel on Middle Road in Clarendon. For the 2013 school year, Mill River Union High School had an enrollment of 526 students. There were a total of 22 Rutland Town residents attending Mill River Union High School in 2013.

Proctor High School: Proctor Junior-Senior High School is located on Park Street in Proctor. Enrollment for the 2013 school year is 139 and one town resident attends Proctor High School.

West Rutland High School: West Rutland High School is located on Main Street in West Rutland. For the 2013 school year, West Rutland High School had an enrollment of 330 students. There are a total of 2 Rutland Town residents attending West Rutland High School in 2013.

Stafford Technical Center: Sharing its location with Rutland High School, the Stafford Technical Center serves full time and part time students. The Stafford Technical Center offers a wide variety of educational experiences for individuals of all ages. The Center is open for day programs which serve both secondary students and adult students. Students from throughout the Rutland Region attend classes at the Center to complement their high school program. The facility is used in the evening for specialized industrial training offered by local companies for their employees. Adult evening programs are available.

Education Strategies

- Support the Stafford Technical Center in providing job skills to area students, and to support a stronger adult curriculum at the Center for retraining displaced adults.
- Encourage the schools to utilize local cultural, historic and natural resource areas as part of their educational programs.
- Encourage continued citizen participation on the local school board so as to maintain educational opportunities at optimum costs to the taxpayers.
- Continue to adequately maintain and upgrade present buildings and grounds.

ECONOMIC DEVELOPMENT

Introduction

Rutland Town is a substantial force in the region's economic health and vitality. The town has a thriving economy boasting high median household incomes and low unemployment

rates. Rutland Town is home to a major industrial park, bustling commercial/retail activity, and numerous professional service jobs, government operations, working lands, and home-based businesses.

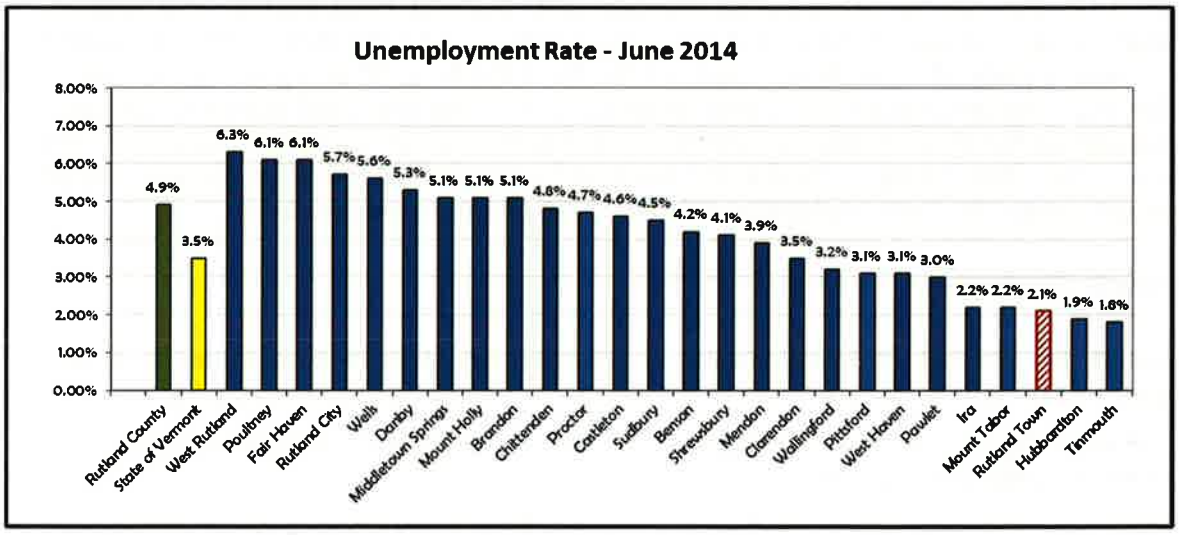
Goal:

> ***To increase the economic vitality of the Town, including new business development that is balances with environmental concerns and the provision of public safety.***

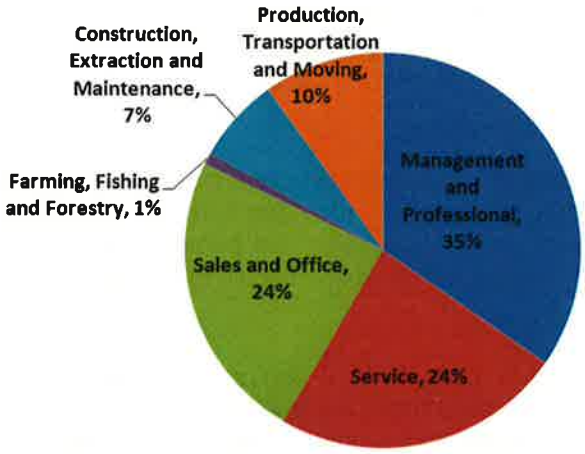
Rutland Town has a significant and growing economic base. The town's 2013 grand list includes 1,890 taxable properties valued collectively at $613.2 million. Of those, 257 valued at $242.8 million were commercial and industrial (additionally there is $226.3 million worth of machinery, equipment, and inventory) and 11 (valued at $5.6 million) were farm parcels. The remaining parcels were residential, utilities, and other miscellaneous properties. An increasing number and proportion of the town's tax base comes from residential properties, in part due to a statewide trend over the past 10 years towards increased residential property values and stagnant commercial ones.

Employment and Occupation

There were a total of 2,446 individuals in the civilian labor force and 296 individuals listed as being unemployed. There were 1,044 individuals not in the labor force. Rutland Town has consistently had one of the lowest unemployment rates in Rutland County.



Source: VT Dept. of Labor, 2014

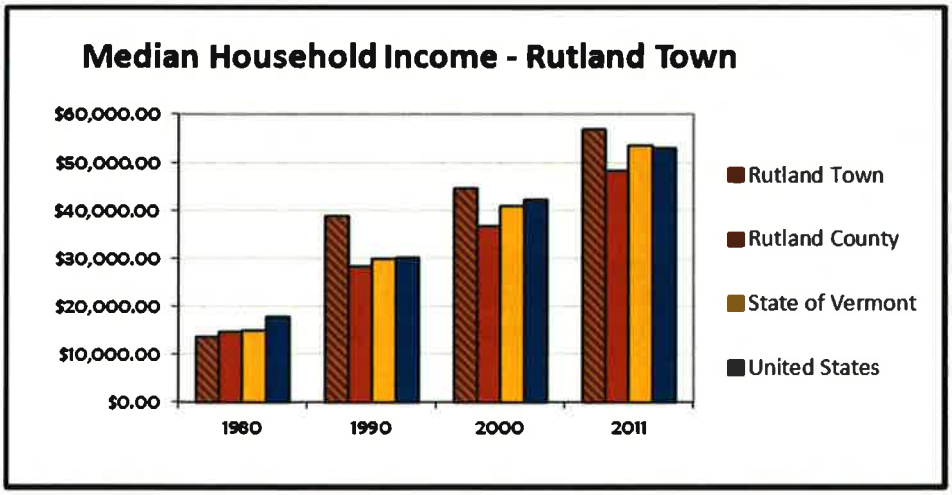


Rutland Town - Occupation

Source: US Census, 2014

Residents of Rutland Town worked primarily in three employment fields in 2010: management & professional, sales and office and service. The Town's employment base has undergone a dramatic shift in the past 25 years. The components of the two sectors – manufacturing and retail sales, respectively – have witnessed opposite trends. While manufacturing jobs accounted for nearly 65% of all jobs in the Town in 1992, and over 50% as recently as 1996, in 2005, they accounted for just 38% of all jobs in the Town. By contrast, jobs in retail have grown from just 12% of all jobs in 1992, to 24% in 2010. Even with the dramatic shift in occupations, the median household income for the town has remained higher than state and county averages for over thirty years.

In 2010, 93% of all jobs in Rutland Town were filled by people who lived within Rutland County. A total of 1,967 Rutland Town residents commuted to work: 1,852 drove alone, 115 carpooled, 77 walked, 19 used other means such as cycling and 40 worked at home. The mean travel time to work was 15. 6 minutes.



Source: US Census, 2014

Economic Development – Strengths, Weaknesses, Opportunities and Challenges

[Rutland Region Workforce Investment Board - 2005]

Strengths

- This part of Vermont is known for its hard work ethic. Rutland Town is no exception and the town's unemployment rate, perhaps for this reason, is very low.
- Rutland Town public officials have demonstrated their commitment to proactive economic

development. They maintain an informative website, express a pro-growth attitude, and provide support to prospective developers during the Act 250 permitting process.

Weaknesses

- Rutland Town has limited capacity to directly provide wastewater treatment and water supply to its commercial and industrial areas. These services are provided through contractual agreements with Rutland City. This can cause some uncertainty for potential developers seeking extension of lines or new levels of service. It is also difficult for Rutland Town officials to control the fees.

- Rutland Town is currently a "one acre" town due to its lack of zoning regulations. This means that commercial/industrial development on more than one acre is subject to the Act 250 permit process. With zoning regulations, any substantial new commercial and industrial development on parcels under 10 acres could be exempt from the Act 250 permitting process, and permitting decisions made a the local level, if the legislative body elects to become a "ten acre" town. However, existing developments with an Act 250 permit on record would remain under the jurisdiction of Act 250.

- Transportation in this region, and within Rutland Town, is generally adequate. As the primary method of transport for goods and people, as well as emergency response, the road system is weakened by its limited redundancy (alternative routes). Needed freight rail line improvements, lack of an interstate highway, and limited and vulnerable road and bridges can present challenges to the Rutland Region's economic growth. However, Rutland Town's commercial and manufacturing sectors occupy some of the best available locations with respect to transportation.

- The Population of Rutland County has remained virtually unchanged since 1990. The ability to find qualified employees is constraining business growth across industry sectors. Extensive interviews with the Region's employers have revealed that the availability of a trained workforce is limiting job growth. Skilled people, especially highly specialized professionals, set to retire are not easily replaced by the existing, younger workforce. This has resulted in some companies foregoing opportunities for expansion. In some sectors, there has been a need to import workers from outside the Region, including internationally.

- There are a number of highly visible properties in Rutland Town which were once in active commercial or industrial use that have fallen into disrepair, at times leaving a less than favorable impression of the area to people, including prospective developers.

Opportunities

- Seventy-four percent of all private businesses in the county are small, unincorporated businesses with owner operators and no employees. This region has a high rate of home based businesses. From maple syrup producers to magazine editors, Rutland Town is home to many entrepreneurs using the Internet to conduct business and this sector has a vast potential for expansion.

- The Rutland region is located within less than one hour's drive from several small cities with strong economies that influence our area, notably Ludlow, Middlebury, Manchester, and Woodstock. Burlington, VT and Albany, NY – both sizable metropolitan areas – are within a couple of hours drive of this Region. Several major metropolitan centers including New York City, Montreal, and Boston are all within half-a-day driving distance.

- An inter-municipal committee exists that provides an opportunity for public officials from

Rutland Town to communicate with public officials in Rutland City about key agreements and other matters.

- Stafford Technical Center has a flexible program design that seeks to meet the needs of local businesses by tailoring the training programs offered to students. It also offers evening programs to adults seeking to increase their skills.

- The area is home to four colleges: College of St Joseph, Community College of Vermont, Castleton State College and Green Mountain College. Vermont Technical College is within commuting distance. These schools are excellent assets offering programs that are responsive to community needs.

- Agriculture in the region is diversifying and changing, bringing new enterprises and direct marketing opportunities through expanded Farmers Markets and Community Supported Agriculture programs, as well as increased sales of local foods through more traditional retail outlets. This focus on "local foods" is increasing the economic viability of farms.

Challenges

- Numerous State regulations and legislative decisions have a direct impact on the town's economic future.

- High energy costs

- Waste disposal regulations

Economic Development Objectives and Strategies

Objectives

- **Improve business climate.** In order to foster a more favorable local economy, the available lands for development must be increased, delays and uncertainties in permitting process must be mitigated, and resources should be used to promote new business development and expansion.

- **Improve infrastructure.** Some of the most important projects fall into this category. Key areas of focus are strengthening the road and bridge network, improving rail infrastructure, increasing public transportation and bicycle and pedestrian network, and improving telecommunications.

- **Develop workforce.** The region's workforce needs to become more skilled and of higher quality, and needs to incorporate young professionals as well as non-traditional employees. This improved workforce will require higher wages, quality healthcare, and affordable childcare.

- **Support agricultural viability.** Agricultural viability depends on efficient distribution networks and a strong local market. There is a need to build infrastructure, such as processing facilities, to support year-round availability of local goods.

- **Proactive engagement with State Legislature.** There are a number of decisions that rest with the Legislature (such as allocation of transportation project dollars, passing along costs to municipalities, regulations) but which directly impact the town's ability to

conduct economic development. In order to make an impact, Rutland Town needs to craft clear messages about what is in the town's best interest and bring that message to the Statehouse.

Strategies

- Identify community growth areas suitable for locating new firms that reflect the Region's value and quality of life.
- Seek resources to upgrade infrastructure, including roads, bridges, rail network, water supply, sewer, and telecommunications.
- Identify and assist in the redevelopment of vacant lots appropriate for infill development.
- Encourage design of commercial architecture in keeping with region's unique character.
- Identify opportunities for inter-municipal collaboration.
- Build agricultural viability by assisting efforts to improve distribution networks and necessary infrastructure.
- Help to create a region that attracts and retains young people and professional families.
- Continue to insist on governmental sensitivity to restrain and reduce increases in property taxation.
- Continue to fight for a drug-free community so as to protect the Town's children.
- Town officials should maintain support for operations of the prime identified employers.
- Establish a long-term water and sewer contract with City with favorable fee structures.
- Explore the development of more localized water and sewer systems.
- Recommend a review of local business taxes to determine if a revision is appropriate in order to be more supportive to new and existing businesses.
- Form a Legislative action group.
- Begin discussion with the City regarding creation of telecommunications infrastructure that will improve connectivity at a level of service needed by businesses.
- Support marketing efforts by the Rutland Economic Development Corporation and the Rutland Region Chamber of Commerce that represent the assets of Rutland City and Rutland Town as a package.
- Adopt Zoning for the Town so that more permitting decisions are made locally.

PUBLIC UTILITIES AND FACILITIES

Introduction

Public utilities and facilities play an important role in land use planning. These features, when combined with the transportation system, serve as the foundation for healthy communities and desirable land use and development patterns.

Goal:

> ***To plan for, finance, and provide an efficient system of public facilities and services to meet future needs; and to maintain and enhance recreational opportunities.***

When planning future land use, it is crucial to understand where municipal facilities and infrastructure are currently provided and how much capacity they have to accommodate new growth. Once known, it is possible to plan for long-range growth needs at a reasonable cost to residents. In order to achieve its land use goals for a particular area, a community may need to explore the potential for initiating a new service. The service should only be supported if it encourages settlement patterns that provide tax revenues greater than the costs to maintain the service.

Town-owned land and buildings include the Town Hall on Business Route 4 in Center Rutland. They also include a two-acre cemetery alongside Business Route 4 in Center Rutland, an eight-acre cemetery at Cheney Hill, a nine-acre parcel purchased to provide access to an anticipated water project off Park St., the Community Center on a 1.1 acre site on Cedar Avenue, and 11 acres of land off Route 7 in the northern section of the town.

Sewer, Water, and Waste Disposal Facilities

Municipal utilities can be viewed, in most instances, as the basic building blocks for growth areas. Improvements to municipal utilities will also be influential in guiding decisions regarding economic development and housing. Businesses and industries are naturally drawn to these systems when choosing a site location within a community. Municipal water and sewer systems in particular also make it possible to permit higher development densities, which can help reduce housing costs. The town is presently working with the Town of West Rutland on a combined sewer and water project, which would provide service to all properties in the corridor along Business Route 4.

Sewage Disposal: There are several separate sewerage systems in Rutland Town. These systems include Center Rutland Fire District #1; extensions of Rutland City sewer system; and the Alpine Pipeline sewer along Route 4.

In addition, the Town of Rutland currently provides wastewater collection to areas in the southern, western, and northern quadrants of the Town. In the south and north, these systems serve commercial, industrial, institutional and educational, and residential uses, while in the west, it serves primarily residential and manufacturing users.

Treatment of wastes collected through these systems takes place at the Rutland City Sewage Treatment plant. Residential town users pay a rate per contract with the City would

sunset for a given user after ten years to a reduced rate. An ad valorem tax applies to any business in Rutland Town which connects to the public sewer system. The business pays 5 times the city base rate for a period of 10 years. Additionally, the business has to pay the City 20% of the real estate taxes paid to the Town. As a result, the business pays 120% real estate taxes for a period of 10 years. After 10 years, the sewer rate reverts to the city rate and the additional real estate tax ceases. These additional costs apply to new businesses and to any existing Town Business that increases their wastewater discharge above what had been previously approved.

The rest of the town uses on-site septic systems for waste disposal. According to the US Census, in 2000 over 80 percent of all housing units disposed of septic wastes via in-ground septic systems. All Wastewater systems are permitted through the State of Vermont Department of Environmental Conservation.

The Town of Rutland operates and maintains its sewer lines through revenues available in the Sewer Operation & Maintenance Account and the Sewer Escrow Account. The Town of Rutland established a Capital Reserve Fund in conformance with 24 VSA 4756(4). The purpose of this fund is to provide for the repair, replacement and future upgrade of the wastewater collection facilities.

Water: Town water service along US 7 South is the result of a 1992 Inter-municipal Agreement with Rutland City. Town residents or businesses wishing to purchase City water are required to apply to the City Board of Aldermen. Effective June 20, 2008 Town water users pay $4.311 per 100 cubic feet or 748 gallons of drinking water. The Rutland City water filtration system is located in the easternmost edge of Rutland Town.

The Town has generally been developed with small water systems built by the developers of the land. The majority of these private systems have been developed in connection with residential subdivisions.

Special purpose municipalities known as Fire Districts serve many other residents and businesses, and "there are limited areas where the Town has provided or acquired water mains to service some customers using an interconnection to the Rutland City water system." Historically, Fire Districts were established in mixed-use areas such as Center Rutland (which is served by Fire District 1) or in larger residential areas. In recent years, however, a number of new Fire Districts were created or proposed as smaller private water systems sought ways to comply with new federal water system regulations. Those in the Town not served by water districts or community systems obtain water on-site using wells or springs.

Solid Waste Disposal and Recycling

The Town of Rutland operates a municipal Transfer/Recycling facility adjacent to the former landfill in Northwood Park. The landfill was closed and capped in November 1993 pursuant to state environmental regulations. Solid waste collected at the facility is hauled by a contractor off-site for disposal. Recyclable material is collected and processed by the Rutland County Solid Waste District. Currently, residents may recycle the following materials: newspaper, cardboard, tin and aluminum, glass, clear and colored HDPE plastic, PET plastic, and white office paper, magazines, and catalogs.

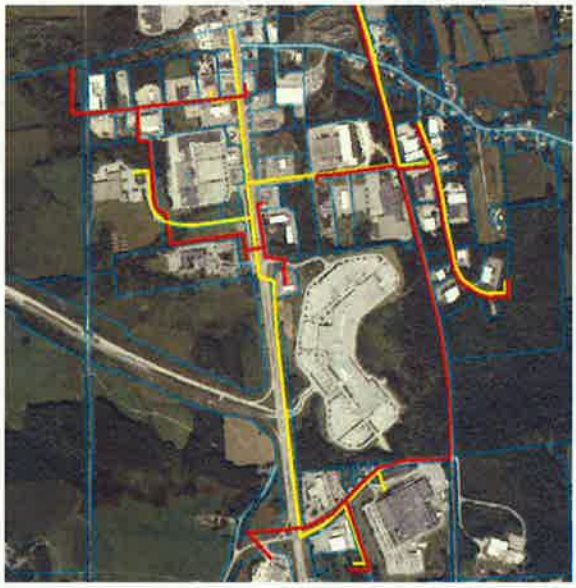
Public water lines (in yellow) and sewer lines (in red) in Rutland Town

Business Route 4 West of Rutland City

Route 4 West Northeast of Rutland City

Route 7 North of Rutland City

Route 7 South of Rutland City



In 2012, Act 148 - Vermont's Universal Recycling Law was passed. The intent of the law is to divert recyclable items, leaf and yard debris, and food scraps from landfills. By July 1, 2015 recyclables will be banned from landfills; by July 1, 2016 leaf and yard debris and clean wood waste will be banned from landfills; and by 2020 food scraps will be banned. Facility owners and trash haulers will need to collect and manage these wastes accordingly. The Town will have to work with the District to ensure compliance with Act 148. The Town of Rutland is a member of the Solid Waste Alliance Communities.

Sewer, Water, and Waste Disposal Strategies

1. Continue to adequately maintain and upgrade present buildings and grounds.
2. Provide sewer and water facilities in areas where the Town deems growth is desirable.
3. Continue developing and protecting underground water supplies.
4. Explore further cooperative agreements with surrounding towns to reduce negative fiscal impacts on the Town.
5. Monitor use of sewer allocations.
6. Study costs/benefits of extending existing sewer lines; continue to work cooperatively with the City of Rutland.
7. Continue recycling efforts.

EMERGENCY MANAGEMENT

Introduction

The analysis of emergency services is important to local land use planning as they are the basic municipal services to residences as well as commercial and industrial uses. Emergency services should be encouraged to locate in or near areas where existing development is concentrated

Goal:

> ***To continue to provide and improve the current level of fire, police and emergency services to all town residents.***

Typically, the most of vital services that local governments provide are emergency services. These services consist of the fire protection, rescue and ambulance services, and law enforcement. Together, these services form the core of the town's emergency management team, alongside town administrators and elected officials.

Emergency Management Planning

Having emergency services available is among the basic needs of residents in Rutland Town. The Town strives to be active in all four phases of emergency management: mitigation, preparedness, response and recovery.

Mitigation: Mitigation means taking action before the next disaster to reduce losses of life and property. In 2004, the Town adopted an Annex to the Rutland Region All Hazards Mitigation Plan. The Annex identifies the natural and human-caused hazards that affect Rutland Town, and outlines mitigation actions and projects that the Town will undertake to reduce damages from future incidents.

Having a FEMA approved hazard mitigation plan increases the Town's funding level from the State Emergency Relief and Assistance Fund, and allows the Town to access Federal Hazard Mitigation Assistance.

Source: Taino Consulting Group

Preparedness: Preparedness involves activities and measures—such as training, plans, procedures, and equipment—taken in advance of an incident to ensure effective response. The Town has an appointed Emergency Management Coordinator, who is responsible for coordinating the various components of the emergency management system. One of the EMC's core functions is to maintain an up to date Local Emergency Operations Plan (LEOP). Rutland Town's LEOP was last updated and adopted on April 22, 2014 and it replaces the Basic Emergency Operations Plan. The LEOP identifies emergency shelter sites: Rutland Town School and the Leahy Center at the Rutland Regional Medical Center. Also listed in the plan are high risk populations, vulnerable areas, emergency contacts, local emergency operations center sites (Joseph J. Denardo Fire Station, Rutland Town Municipal Offices, Mckinley Ave. Fire Station, etc.) The Local Emergency Operations Plan should be reviewed annually, and updated and readopted as necessary by May 1st.

Response: Response activities address the short-term, direct effects of an incident and seek to save lives, protect property, and meet basic human needs. In Rutland Town response services include fire protection, rescue, and public safety/police.

Fire protection in Rutland Town is provided by volunteer fire department with assistance from surrounding municipalities under mutual assistance agreements. Many members of the Department have received over two hundred hours of training outside the department. This training has included courses in first aid, CPR, pumps, buildings construction, fire behavior, alarm systems, emergency vehicle operations and operations level Hazardous Materials training.

Facilities maintained by the Department include two fire stations, one on McKinley Avenue and another in Center Rutland. The Department continues to make facility improvements at both stations. A new Center Rutland Station was built in 2014 and the McKinley Avenue station was recently connected to a sewer line.

The Town's Police Department consists of 4 police officers, 2 of whom also serve as Town Constables and a third is a special officer. The Vermont State Police are also available, particularly for daytime calls. The State Police are dispatched from the local state police barracks, which is located in Rutland Town.

The Town uses the services of EMTs and paramedics through the Regional Ambulance Service. The RAS serves 12 communities. Replacement of vehicles and equipment takes place on an ongoing basis.

The Rutland Regional Medical Center is located in Rutland City and is a distance of approximately one to five miles for most Rutland Town residents. The hospital is a major facility.

New Center Rutland Fire Station constructed in 2014

Rutland Town is fully participating in the Enhanced 911 Emergency Response Program. All calls for emergency services are handled by a central dispatch center that automatically knows the location of the person making the call.

Recovery: Recovery is the process of rebuilding, restoring, and rehabilitating the community following an emergency. The town maintains records of cost incurred in the recovery from disasters, including road and culvert repairs. This information is reported to Vermont Division of Emergency Management and Homeland Security, and the local Agency of Transportation. The district office helps the state to apply for presidential declarations of disaster in larger events and can make the town eligible for substantial reimbursement of costs.

Emergency Management Strategies

- Continue to financially support the volunteer Fire Department, Town Constables and emergency response services.
- Continue to recruit new members to the volunteer Fire Department.
- Continue to provide specialized training as needed for Town Fire and Police services.
- Review and re-adopt the Town's emergency response plan annually.
- Review and re-adopt the hazard mitigation plan every five years.

FLOOD RESILIENCE

Introduction

Flood events are Vermont's most frequent and costly type of natural disaster. There are two types of flooding that impact communities in Vermont: inundation and flash flooding. Inundation is when water rises onto low lying land. Flash flooding is a sudden, violent flood which often entails fluvial erosion (stream bank erosion). The combination of flash flooding and fluvial erosion cause the most flood-related damage in the state. According to the Vermont Division of Emergency Management and Homeland Security, the state incurred

costs of more than $850 million from Tropical Storm Irene. Prior to and since Irene, Vermont has experienced more frequent and severe flooding and will likely continue to in the future due to climate change.

Goals:

- ***Protect the citizens, property, economy, and quality of the Town's natural resources by using sound planning practices to address flood risks.***
- ***Ensure the Town is able to recover from flooding quickly and in a manner that improves flood resilience.***
- ***Encourage development in Town that does not worsen flooding, and restore natural river functions.***

Mapping Flood Hazard Areas

To meet the new state requirement of identifying flood hazard and fluvial erosion areas and designating areas to be protected, maps are an essential aid. Because the methods of mapping inundation and fluvial erosion corridors differ significantly, river corridor maps are a critical addition to existing flood hazard maps.

The National Flood Insurance Program (NFIP) was created by the Federal Emergency Management Agency to address inundation hazards. Flood insurance rates are based on Flood Insurance Rate Maps (FIRMs) or Digital Flood insurance Rate Maps (DFIRMs) which delineate areas of the floodplain likely to be inundated during a flood. These are identified as a Special Flood Hazard Area (SFHA) or with a 1% annual chance of flooding. Town participation in NFIP is voluntary. In Vermont, two thirds of flood damages occur outside of federally mapped flood areas.

Vermont's River Corridor and Floodplain Management Program, developed by the Vermont Agency of Natural Resources (ANR), delineates areas subject to fluvial erosion. River corridor maps are designed with the recognition that rivers are not static. A certain amount of erosion is natural when Rutland Town floods because of the town's relatively steep terrain and frequent storms. Development in the river corridor and stream channel engineering over time have increased channel instability. While these management practices may create the illusion of stability, these engineered channels when tested by a high flow cannot be maintained. Special mapping and geomorphic assessments can identify fluvial erosion hazard areas along rivers.

Numerous rivers and streams in Rutland Town have undergone Stream Geomorphic Assessment (SGA), and in some cases River Corridor Management Plans have been developed. These studies and plans are vital in determining river and stream alterations, which affect water flows and could potentially lead to future flood damage. The SGAs and River Corridor Plans suggest potential remediation actions that can be taken to reduce the risk of future flood damage including, planting stream buffers, stabilizing stream banks, removing berms, removing structures and restoring incision areas. Unmapped River Corridors/Fluvial Erosion Hazard (FEH) Areas of Rutland Town should be included in this Town Plan as they become available.

History of Flooding

Flood events are Vermont's most frequent and costly type of natural disaster. There are two types of flooding that impact communities in Vermont: inundation and flash flooding. Inundation is when water rises onto low lying land. Flash flooding is a sudden, violent flood which often entails fluvial erosion (stream bank erosion). The combination of flash flooding and fluvial erosion cause the most flood-related damage in the state. According to the Vermont Division of Emergency Management and Homeland Security, the state incurred costs of more than $850 million from Tropical Storm Irene. Prior to and since Irene, Vermont has experienced more frequent and severe flooding and will likely continue to in the future due to climate change.

The worst recurring flooding problems tend to cover the roads and disrupt traffic flow, but these are slow rising waters and damage to the roads, culverts etc. is typically minimal. Frequent problem areas include:

- Route 7 in the vicinity of a bridge over East Creek in the north section of Rutland Town (near Post Road).
- Business Route 4 in the vicinity of one of the Fire Stations (near the intersection of West Proctor Road).
- In the vicinity of the Fire Station on McKinley Avenue. The Fire Station itself is on high ground, raised above the floodplain. However, a State Police barracks, DMV and VTRANS garage are all located along State Place raised above the base elevation taking it outside of the floodplain – though technically surrounded by floodplain lands. The Fire Station is designated as a place to relocate State Police operations in the event flooding becomes a problem.

Flood Hazard Area Regulations

The Town's Flood Hazard Area Ordinance (adopted in 1999) meets requirements for participation in the NFIP. The bylaws, however, could improve flooding and fluvial erosion by avoiding new development/fill/removal of wetlands in the River Corridor or Special Flood Hazard Area. The current flood hazard regulations do not qualify the Town for favorable (17.5%) state reimbursement rates after disasters as established in the Emergency Relief and Assistance Fund (ERAF) rules.

E-911 mapping from July of 2013 indicates that 30 structures in Rutland Town are within the SFHA (1% annual chance of flooding) as identified on the Rutland County DFIRM dated 2008.

NFIP Participation

Rutland Town received a flood hazard boundary map in February of 1975 and joined the National Flood Insurance Program on September 29, 1978. The town's Flood Insurance Rate Map and Flood Insurance Study were first published in September of 1978. The Rutland County DFIRM became effective in August 2008. The hydrology and hydraulics were updated in the DFIRM.

As of September of 2013, the Town has 10 flood insurance policies in the SFHA, and 4 additional policies in town, through the NFIP. In total, these policies cover $2,674,500 in value. Flood insurance is available for any structure in town regardless of previous losses or location. The cost of flood insurance premiums rises in areas identified at a high-risk level. Flood insurance is not required where property (but not a structure) is in a flood hazard area.

Local Hazard Mitigation Plan and Local Emergency Operations Plan

The Rutland Town Local Hazard Mitigation Plan (LHMP) was adopted in 2004 as an Annex to the Rutland Region All-Hazards Mitigation Plan. Since the plan expires after 5 years, and since the Annex was not updated and re-adopted, the LHMP has expired. The Town should seek resources to update, gain FEMA approval, and adopt an LHMP. The LHMP identifies known hazard issues in town and allows the Town to seek FEMA Hazard Mitigation Assistance funds.

Rutland Town's Local Emergency Operations Plan (LEOP) was adopted in April of 2014 and is reviewed annually. The LEOP encourages flood preparedness and identifies a process for response planning.

Lands that Minimize Flooding

River corridor assessments aid communities in making knowledgeable and strategic decisions about how to best protect, manage, and restore watershed resources. Riparian buffers reduce flood hazards and stabilize stream banks, attenuate floods, provide aquatic and terrestrial habitat and wildlife corridors, filter runoff, absorb nutrients, and shade streams to keep them cool. Wetlands also prevent flood damage and are a vital component for maintaining the ecological integrity of land and water. In addition, upland forests also moderate flood impacts and attenuate flood impacts. Steep slopes, on the other hand, can be a detriment during flooding by amplifying water volume and velocity in rivers and streams. These natural features are identified on the Rutland Town Natural Resource Maps where are hereby adopted with this Plan. Development in these areas shall be avoided.

Because impervious surfaces prevent the infiltration of water into the soil, these man-made surfaces exacerbate flooding by increasing the amount and velocity of stormwater runoff, particularly in areas where these surfaces are prevalent.

Flood Resilience Strategies

1. **Identify all flood areas -** Areas not designated in FEMA's maps or in VT's ANR's maps, but which are flooded during a weather event, should be added to local flood regulations.

2. **Study River Corridors -** To identify areas subject to normal channel erosion processes and avoid loss of floodplain functions, the Town should seek a geomorphic assessment of its rivers and creeks to secure River Corridor Plans and River Corridor (FEH) delineations.

3. **Study Setbacks and Buffers -** In the absence of field-based river corridor assessments, the community will use setback and buffer standards to address hazards, water quality, and habitat impacts using Vermont DEC setback recommendations. Keeping structures 50 feet back from the top of stream banks is the recommended state minimum.

4. **Identify wetlands -** Work to develop more consistent, accurate and thorough identification of wetlands areas through the use of best available data and the adoption of local wetlands regulations and updated maps.

5. **Enhance flood hazard regulations to protect wetlands -** Require all wetlands which provide flood storage functions remain undeveloped or have compensatory storage constructed so as to achieve no net loss and, for the long term, restore and enhance additional wetlands to improve town's flood resilience. Prohibit structural development or intensive land uses in Class I or Class II wetlands unless there is an overriding public interest.

6. **Identify other lands to prevent flooding -** Maintain vegetated buffer strips in riparian zones surrounding streams and rivers. Maintain upland forests and watersheds for predominately forest use. Require new development to preserve vegetated riparian buffer zones that are consistent with state riparian buffer guidelines.

7. **Restore natural river functions -** Work with RRPC, ANR, towns and landowners to lessen flood risk by reconnecting river channels to historic floodplains through berm or dam removal or intentional lowering of stream banks.

8. **Discourage new fill, construction and infrastructure in flood hazard and fluvial erosion areas:**

    - Prohibit fill and new buildings within river corridors
    - Require all new buildings, other than accessory structures, in mapped flood areas, to have the lowest floor at least one foot above base flood elevation.
    - Emergency services, wastewater treatment plants, power substations, and municipal buildings shall not be built in special flood hazard areas unless flood-proofed or elevated to at least two feet above the base flood elevation and designed to withstand erosion risk.
    - Adopt road and bridge standards to the 50 or 100-year storm level for identified critical transportation routes.

9. **Reduce percentage of impervious surfaces -** Limit the number of rooftops and pavement, by using permeable surface materials, employing disconnection practices, by implementing Low Impact Development (LID) principles, and other methods to increase stormwater retention and infiltration.

10. **Update Flood Hazard Regulations -** Update flood hazard area and river corridor standards to meet standards in the current Vermont flood hazard area regulation model #4. The Town should work with the RRPC to update its flood hazard regulations and secure geomorphic assessments and River Corridor data.

11. **Encourage green infrastructure techniques in subdivision regulations**

12. **Explore the removal or renovation of structures in flood areas -** Existing homes and businesses at serious risk of flood damage should be identified and prioritized by the town for mitigation actions such as elevation/relocation or purchase and demolition.

13. **Hazard Mitigation Planning -** Recruit and support a community committee to pursue flood hazard mitigation efforts.

14. **Emergency Operations Planning -** Develop and maintain a Local Emergency Operations Plan annually and work with first responders and the highway department to plan improved emergency response capacity (operations, training, and equipment) during natural disasters as identified in the Local Emergency Operations Plan.

15. **Education -** Establish and sustain a flood hazard area education and outreach effort to support flood damage mitigation and better insure community residents and property for future flood damage.

RECREATION

Introduction

Recreational facilities are a major factor to consider when developing a municipal plan. It is important to ensure that as a community grows, recreational resources are available and accessible.

Goal:

> ***Maintain and enhance recreational opportunities in Rutland Town.***

Facilities and Programs

Recreational facilities owned or administered by or through the Town include: Del Bianco Park at Dewey Field, Northwood Park, the Town Forest, Rutland Town Elementary School. In addition, the Spartan Arena, owned by Castleton State College, is located in Rutland Town at the Diamond Run Mall.

Rutland Town's parks and recreation facilities are supervised by a part-time Rutland Town Recreation Commission Director. They are responsible for administration and coordination of recreational programs, provision and maintenance of recreational facilities and identification of future recreational needs. A number of improvements have been made to Town parks over the past ten years. Two new soccer fields were built; construction of a multi-use recreation path separated from vehicle traffic is underway, and Northwood park's hiking paths are being extended. Additional accessible hiking and skiing paths are still needed, however.

Recreation Strategies

- Expand opportunities for adults to recreate together by offering more adult recreation programs.
- Require recreation facilities and dedicated open space lands during subdivision review.
- Develop a comprehensive aquatics program to make maximum use of Northwood pool, including instruction, competition, water carnivals, water ballet, etc.
- Organize sports leagues to serve Rutland Town residents.
- Continue development of Northwood in accordance with the master plan as approved by Act 250 for the site.
- Explore camping, trail, and nature study uses of the Town Forest property.
- Explore ways to ensure continued access to private property (e.g. Pine Hill, Boardman Hill, Otter and East Creeks) for recreational pursuits such as hiking, snowmobiling, cross-country skiing, biking, canoeing.
- Continue to receive input from residents to better determine interests and needs.
- Work to provide additional parking at Del Bianco Park and Dewey Field.

TELECOMMUNICATIONS

Introduction

Recent advances in wireless communications technology have resulted in a new generation of telecommunication services. Telecommunication towers and related infrastructure require careful consideration, as these structures tend to be located on highly visible locations on such as buildings, water towers and other similar structures; and in environmentally sensitive natural areas such as mountaintops and ridgelines.

Goal:

Provide for the establishment and/or expansion of telecommunication services within Rutland Town, while protecting neighborhoods and minimizing adverse visual and operational effects through careful design, siting and screening.

There are currently several telecommunication facilities located in the town. By virtue of its location, Rutland Town may be described as part of communications and transportation hub of the Rutland Region. Rutland Town is located at the center of Rutland County between the Towns of Pittsford, Mendon, Clarendon, West Rutland, and Proctor. Contained within the center of the Town lies the City of Rutland, the most populous municipality in the Region.

Rutland Town also encompasses the crossroads of two major highway arterials and three historically separate railroad lines, and lies just north of the Rutland State Airport. As a result of the location of these features relative to the Region's center for population, commerce, and transportation, Rutland Town is a desirable location for telecommunications facilities.

The State of Vermont Public Service Board and District Environmental Commissions have jurisdiction over the permitting of telecommunications facilities. The Town of Rutland has also adopted a Telecommunications Ordinance. The Telecommunications Ordinance and sentiments of this Plan are to be given substantial deference during the review and permitting of telecommunications facilities.

Telecommunications Strategies

- All telecommunications facilities shall be located in appropriate areas, respecting the integrity of residential areas, aesthetic concerns and natural resources areas.
- Wherever possible, facilities shall be co-located at or on existing structures or facilities.
- Towers and related facilities shall only be as tall as absolutely necessary and designed to blend in with their surroundings.
- Towers and related facilities shall be designed to avoid potential damage to adjacent properties from tower failure through engineering and careful siting of tower structures.
- Unless required by the FAA, towers shall not be illuminated. Where required, lights shall be shielded to minimize impacts, and so that light is cast only where needed.
- Electric or transmission lines shall be installed so as to minimize aesthetic and ecological impacts. For example, clear-cut swaths, created for power lines or access roads which go straight up the mountainside, often create more adverse impacts than the towers they serve, and are not acceptable.
- Regularly review and update the Town's Telecommunications Ordinance. Specifically, identifying sites where new telecommunications facilities are prohibited.

ENERGY

Introduction

Energy is a critical factor in the economic, environmental, and social well-being of a community. Practically every decision people make or action they take affects energy use or production. Although Vermont has the lowest per-capita energy use in the country, rising energy costs and the environmental impacts of energy production have made energy an important issue and planning priority.

Goals:

- ***Improve energy efficiency of town operations as well as public, commercial and residential buildings.***
- ***Promote energy efficient land use development and transportation patterns***
- ***Educate and encourage citizen participation in conservation programs.***

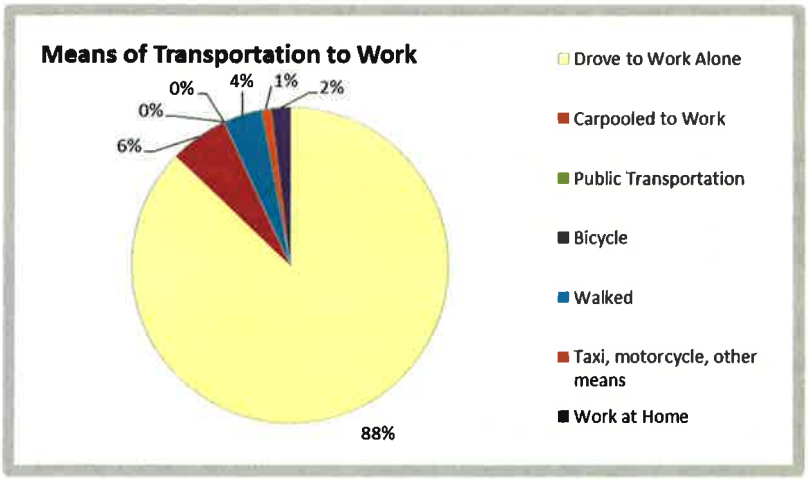
Energy Use

The three primary sources of energy use in Vermont are electricity, transportation, and residential heating and cooling.

Electricity is provided by Green Mountain Power and VELCO, which owns and operates the transmission lines. VELCO is headquartered in Rutland Town and GMP operates a major systems and operation center in the town. Several public and private organizations, such as Efficiency Vermont, operate to educate consumers about conservation and to provide technical assistance to consumers seeking to reduce their energy consumption.

Transportation is a significant consumer of energy in the Rutland Region and Vermont as a whole, due to our rural nature and mountainous terrain. The private automobile is the primary source of transportation energy consumption. According to the US Census, the mean travel time to work in Rutland Town in 15.6 minutes.

Reducing energy for transportation will mean promoting use of more efficient vehicles and the development of compact centers with support the density to encourage other means of travel, such as bicycle and pedestrian. According to the Urban Land Institute, compact development patterns reduce vehicle miles traveled by 20%-40%.



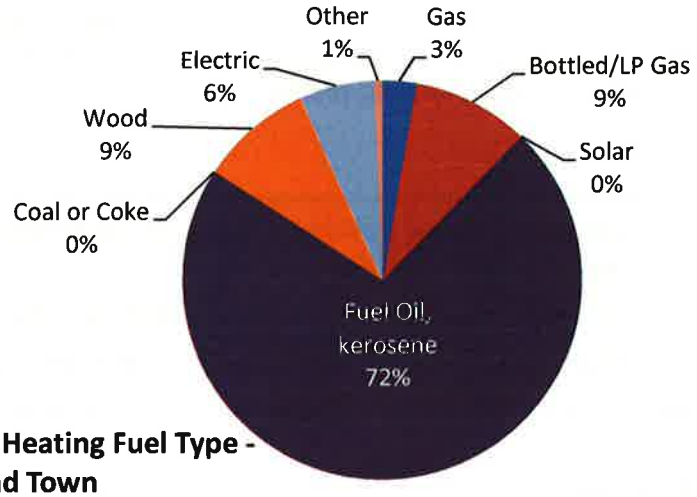
Rutland Town – Means of Transportation to Work 2010

Source: US Census

Residential heating accounts for approximately 1/3 of the energy use in Vermont. According to the US Census, 72% of the home heating fuel type in Rutland Town is with non-renewable sources such as fuel oil and kerosene.

Renewable Energy Production

Energy in the form of "renewable" sources can provide significant amounts of clean energy. Developing these resources is critical, as currently, the total amount of energy that can be extracted from renewable sources is significantly less than what we currently obtain from fossil fuels. To maintain quality of life, vibrant communities and prospering economies, the town will have to develop conservation strategies that use remaining non-renewable fuels wisely to transition to a society that uses more energy obtained from clean and renewable sources.



Home Heating Fuel Type - Rutland Town

Wood: Approximately 9.1% of homes in Rutland Town used wood as their primary heating source in 2012, according to the US Census. Presently, Vermont's forests could supply many more households with wood for heating. According to statewide guidelines, each forested acre of land in the Town could probably sustain a harvest of about 1.3 cords per year if fuel wood production was the primary objective. About 0.6 cords of fuel wood per acre per year could be expected if high quality saw timber was the primary objective.

Solar: Solar energy is the most commonly used source of renewable energy, although less than 1% of Vermont homes use solar for heating. In Rutland Town, energy use from solar electric generation facilities is being provided on two scales: 1) on-site applications and small group net-metered systems for residential, commercial, government and industrial establishments to offset costs and 2) large-scale systems (some group net-metered) which feed power back into the grid but do not serve a localized area. Most small systems are exempt from local land use bylaws and larger systems are reviewed and permitted by the Public Service Board, pursuant to 30 V.S.A. §248.

The Town of Rutland has adopted Solar Facility Siting Standards, which are located at the end of this chapter. The standards shall be given full consideration during Public Service Board review and permitting of solar electric generation, and other large-scale energy generation facilities in Rutland Town.

Wind: Large and small wind energy generation is occurring more frequently in Vermont. Large scale wing energy projects have been explored or proposed in surrounding towns. As a result of the Town's physical setting, primarily in valley areas, there is greater potential for smaller-scale wind power than for large-scale projects. A recent study of wind speeds throughout the State of Vermont indicated that the eastern border of Rutland Town could have suitable wind speeds for large-scale wind generation.

Similarly to solar energy production, most small systems are exempt from local land use bylaws and larger systems are reviewed and permitted by the Public Service Board, pursuant to 30 V.S.A. §248. Standards in the Solar Facility Siting Standards apply to wind energy generation and shall be given full consideration during Public Service Board review and permitting of solar electric generation facilities in Rutland Town.

Hydro: Rutland Town is home to three hydroelectric facilities, all operated by Green Mountain Power. One is the former Vermont Marble site in Center Rutland; another is the reactivated Glen Station at the Mill Village site; and the third is at Patch Pond.

Energy Strategies

- Investigate and promote methods to reduce energy consumption by individuals, businesses and municipal operations.
- Conduct energy-saving retrofits to municipally owned facilities.
- Encourage all new residential and commercial construction to meet energy standards.
- Educate residents and builders on energy-conserving construction techniques for new buildings.
- Encourage the development of renewable energy resources, in appropriate locations and meeting the standards set in the Solar Facility Siting Standards.
- Encourage small-scale solar and/or other renewable energy production methods.
- Update the Town of Rutland Subdivision Regulations to promote mixed-use compact development patterns and complete streets principals to promote bicycle and pedestrian means of travel and reduce the amount of travel by single-occupant vehicles.
- Support the extension of bus service.
- Promote car and van pooling by supporting the establishment of park-and-ride areas and through public education about ride-sharing resources.
- Update the Town of Rutland Subdivision Regulations to promote energy efficient design and siting of buildings to reduce energy costs.

SOLAR FACILITY SITING STANDARDS

The contribution of solar energy to Rutland Town's total energy supply is growing. More structures are being sited, oriented and designed to incorporate passive solar construction techniques for space heating and natural lighting. Passive solar building design and solar thermal heating systems can significantly increase energy efficiencies and reduce costs. Until recently, the upfront costs of solar photovoltaic (PV) systems were generally too costly for the average homeowner, but emerging technologies and state, federal and utility incentives have made grid connected net-metered PV systems more affordable.

As of September 1, 2013, the Public Service Board had issued certificates of public good for net-metered solar PV installations in the Town of Rutland, ranging in capacity from 10.659 kW to 800 kW, with a total reported generating capacity of 1.0179 Megawatts.

Technological advances, including the incorporation of photovoltaic components in roofing and siding materials, may make solar power an even more viable source of electricity in the near future.

An initial GIS analysis done for the Vermont Renewable Energy Atlas identified approximately 1,500 building sites in the Town of Rutland that are potentially suitable for roof-mounted solar arrays and other areas that may be suitable for ground-mount solar.

The scale and siting of some proposed and/or existing solar installations in Rutland Town and other Vermont communities, have raised concerns about the impacts that such facilities can have on the town's residential neighborhoods and its scenic, natural, agricultural, and historic resources.

As a result, the Planning Commission has developed community siting standards, for consideration by the municipality and the Public Service Board, that are intended to avoid and mitigate potential impacts of solar facility development, while promoting new installations in appropriate locations, and achieving proportionality in Rutland Town's contribution to renewable energy solutions.

SOLAR FACILITY SITING & DEVELOPMENT

Electricity generation and transmission systems powered by solar energy are regulated by the Public Service Board (PSB) under 30 V.S.A. Section 248 (Section 248 PSB proceedings). These include net metered distributed energy installations, as well as more commercial, utility-scale generation, transmission and distribution facilities. The Rutland Town Planning Commission, the Rutland Regional Planning Commission, and the Rutland Town Select board will receive notice of a Certificate of Public Good (CPG) application for a proposed solar facility in Rutland Town. In determining whether to provide a proposed solar project with a CPG, the PSB must give due consideration to the recommendations of the municipal and regional planning commissions, the Rutland Town Select Board, and the land conservation measures contained in the Rutland Town Plan.

See 30 V.S.A. §248(b)(1).

The PSB must also determine whether a proposed solar facility will have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and the public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. § 1424a(d) (outstanding resource waters) and the Act 250 criteria set forth in 10 V.S.A. §6086(a)(1) through (8) and 9(K).

See 30 V.S.A. §248(b)(5).

To determine whether the proposed solar energy facility would have an adverse impact on the considerations set forth as identified in:

§248(b) (5) above, PSB Rule 5.108(A) requires the PSB to conduct the so-called "Quechee analysis" to assess whether a proposed solar project would have an adverse impact by virtue of being "out of character with its surroundings," and if so, whether the adverse impact qualifies as "undue." Rule 5.108(A). The PSB therefore must consider "the nature of the project's surroundings, the compatibility of the project's design with those surroundings, the suitability of the project's colors and materials with the immediate environment, the visibility of the project, and the impact of the project on open space." Rule 5.108(A)(1).

A solar project's location, size, and visibility, together with the context of the surrounding land uses, will be relevant in the PSB's consideration of whether the proposed project would have an undue adverse impact. Among other things, the Quechee analysis requires the PSB to consider whether the proposed project would violate a "clear written community standard".

Therefore, the effective participation of the Rutland Town in the PSB's review process requires the development of specific community standards in order to ensure that local conservation and development objectives are considered and weighed by the PSB in its review of a CPG application for a solar energy facility. Toward that end, the Rutland Town Planning Commission has developed the following specific community standards for the siting and development of a solar energy facility in Rutland Town.

RUTLAND TOWN COMMUNITY STANDARDS REGARDING ENERGY FACILITIES

Purpose

The purpose of these community standards is to regulate the development of renewable energy resources and solar energy facilities in Rutland Town. These policies should also be considered in undertaking municipal solar energy projects and programs, in enacting or updating the town's bylaws to address renewable energy development and in the review of new or upgraded energy facilities and systems by the town and in Section 248 PSB proceedings.

GOALS

1. Promote sustainable development in Rutland Town by reinforcing traditional land use patterns and municipal development policies, maximizing energy conservation through weatherization of existing structures and appropriate siting of new development, encouraging appropriate development and use of renewable energy resources, protecting natural and cultural resources.

2. Ensure the long-term availability of safe, reliable and affordable energy supplies to meet the needs of the town and neighboring communities.

3. Reduce municipal energy consumption and costs, community reliance on fossil fuels and foreign oil supplies, and greenhouse gas emissions that contribute to climate change through increased energy and fuel efficiency, energy conservation, and active transition to alternative fuels and renewable energy sources.

4. Sustainably develop Rutland Town's renewable energy resources and local distributed energy generation capacity – including municipal and community generation and supporting smart grid technology – consistent with adopted plan policies and community energy facility and siting standards.

5. Avoid or minimize the adverse impacts of energy development on public health, safety and welfare, the town's historic and planned pattern of development, environmentally sensitive areas, and Rutland Town's most highly valued natural, cultural and scenic resources, consistent with adopted plan policies and community standards for energy development, resource protection and land conservation.

POLICIES

1. Encourage energy efficiency and conservation as primary considerations in new municipal construction projects, equipment purchases and operations. Life cycle costing shall be used by the town in evaluating capital expenditures as appropriate.

2. Encourage, to the extent practical, the use of energy efficient municipal vehicles (e.g., hybrid, bio-diesel).

3. Development should be directed toward designated growth centers and limited in the least accessible areas of the community to minimize the need for new road infrastructure and reliance on the private automobile.

4. Support land use and conservation policies that encourage ongoing forest management to maintain a local source of fuel-wood.

5. Support land use and conservation policies that encourage agricultural uses on prime agricultural soils to increase the supply of and access to locally produced food and reduce the total food transport miles required to sustain Rutland Town families.

6. Encourage small scale and appropriately sited development of renewable energy generation solar panels. Such encouragement should consider, but not be limited to the prevention of:

A. Undue adverse visual impacts on adjacent properties, scenic corridors and Rutland Town view sheds;

B. Forest fragmentation, environmental degradation, and habitat disruption;

C. Impacts to sediment transport and aquatic organisms' passage in streams;

D. Their use of land with prime agricultural soil.

7. Prohibit free-standing solar generation structures on forest land above 1000 feet elevation.

8. The town – in collaboration with the Rutland Regional Planning Commission, neighboring communities and utilities serving the town – will participate in long- range utility. Planning to ensure that adopted plan policies and community standards are identified and considered in future energy planning and development.

9. Existing and proposed municipal policies, programs and regulations will be evaluated for their effect on municipal energy use, and revised as needed to promote reduced energy consumption, increased energy efficiency, and the sustainable development and use of local renewable energy resources.

10. Energy and fuel efficiency will be primary considerations in municipal construction projects, equipment and vehicle purchases and facility operations.

11. The town will collaborate with the NeighborWorks of Western Vermont, area utilities and service providers to promote community energy literacy, and to provide information about available energy assistance and incentive programs, state energy codes and energy system permitting.

12. The town may participate before the PSB in Section 248 review of new and upgraded energy generation and transmission facilities as necessary to ensure that adopted community standards are given due consideration in proposed energy facility development.

13. New energy facility development within or that may affect Rutland Town must conform to adopted community standards for energy facility siting and design to receive municipal support or approval.

14. New development shall not exceed the capacity of existing and planned generation, transmission and distribution systems. Development with high energy demand must maximize energy efficiency, incorporate on-site generation, or undergo project phasing in relation to planned system upgrades as necessary to mitigate anticipated service or facility impacts.

15. New development must be designed and constructed to at minimum meet state energy standards, through site and building design, material selection and the use of energy-efficient lighting, heating, venting and air conditioning systems.

16. The town will work in cooperation with local agencies, emergency service providers, and regional suppliers to develop emergency contingency plans that ensure access to critical energy supplies and measures to reduce nonessential energy consumption in the event of an abrupt energy shortage.

GENERAL STANDARDS FOR ENERGY PROJECTS

Rutland Town supports the following appropriately sited types of energy development, "appropriately sited" defined as meeting the general setback and aesthetic standards contained herein:

- Increased system capacity through state, utility and municipally-supported energy efficiency and conservation programs.

- Individual and group net-metered renewable energy projects, community-based projects, and other small-scale distributed renewable energy systems serving individual users, in appropriate, context-sensitive locations.

- In-place upgrades of existing facilities, including existing transmission lines, distribution lines and substations as needed to serve the town and region.

- New community-scale *solar* energy facilities, including new transmission and distribution lines, substations and solar farms designed to meet the expected needs of Rutland Town.

To the extent physically and functionally feasible, existing utility systems, including transmission lines, distribution lines and substations, shall be upgraded or expanded on site or within existing utility corridors before new facilities or corridors are considered.

Rutland Town will endorse or permit the development and installation of energy facilities that conform to community energy facility development and siting standards through participation in Section 248 PSB proceedings or, where applicable, through local financing and incentive programs and regulations.

PUBLIC HEALTH AND SAFETY STANDARDS AND USE CLASSIFICATION

A small net-metered or off-grid solar energy project, including a solar array system intended solely to serve an individual residence or business, is allowed in all land use districts

Setbacks

Except for transmission, distribution lines, substations and utility connections, all energy facilities must meet the following setback requirements. A 60 foot front yard setback measured from the nearer edge of the traveled portion of the public highway, a 60 foot side yard setback and a 60 feet rear yard setback as measured from the from the property line.

In addition, renewable energy facility setback distances from property lines may be increased, as necessary to mitigate aesthetic impacts upon adjoining property owners.

Access

New energy generation facilities shall be sited in a manner that avoids or, to the greatest extent physically feasible, minimizes the need for new and extended access roads and utility corridors.

- Facility access should be provided from existing access roads where physically feasible, and access roads and utility corridors should be shared to minimize site disturbance, resource fragmentation, the creation of additional edge habitat, and the introduction and spread of invasive exotic species.

- Identified impacts to public highways from facility construction, operation and maintenance, including highway improvements required to accommodate the facility, shall be mitigated by the developer.

- Public access to generation and transmission facilities, including substations, must be restricted as necessary to protect public health and safety.

Signs

Energy generation facilities and structures shall not be used for display or advertising purposes. Signs, identifying owner and manufacturer shall not exceed one (1) square foot. Safety warnings shall be as required by State and or national Code.

- Substation lighting should be the minimum necessary for site monitoring and security, should be cast downward, and must not result in light trespass or glare on adjoining properties.

Codes

Energy generation facilities must comply with all manufacturer specifications, state, national or industry safety and electric codes, and utility connection requirements.

- Documentation of code compliance may be required for facilities subject to review under town bylaws and/or ordinances.

Decommissioning and Abandonment

Generation facility permits or certificates must include provisions for system abandonment, decommissioning and site restoration including, for larger systems > 100 kW, required sureties for facility removal and site restoration.

SOLAR ENERGY FACILITY SITING STANDARDS

Site Designation and Siting Standards :

- Sites planned for or intended to accommodate solar energy facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, are to submit to the Town a site plan showing the proposed facility.

- Solar energy facilities and accessory structures are to be designed and constructed of materials, colors, and textures that blend into the surrounding natural or built environment to the extent feasible.

- Landscaping and Screening:

  a. Solar energy facilities shall be screened from adjacent roads and adjoining residential uses. Vegetation used for this purpose may include both conifers for winter screening and deciduous plants to provide summer shade and to create an overhead canopy. Screening may also include features such as berms, low walls or fences, where such features are incorporated into an overall landscape design. Screening may also be achieved by placing smaller buildings between the solar arrays and the road or adjoining residential uses.

  b. It is not expected that screening will create an impenetrable visual barriers with respect to vehicular traffic, pedestrian or other travelers on the road or lands adjacent to the solar array. Rather, for those temporarily traveling through the area, the objectives of screening are:

     I. To create a pleasant streetscape.
     II. To create a visual edge for the public space along the street, and
     III. To prevent unobstructed views of the solar array.

  c. It is expected that screening will create a year-round visual barrier screening the solar array from residences within 500 feet of the project. For the objective of screening view of the solar array from such residences, the objectives are:

     I. Screening, including plantings of conifers rather than deciduous trees and shrubs will be used in conjunction with berms and existing and native vegetation.
     II. No more than 20% of the solar array will be visible from any part of a residence and its immediate surrounding ½ acre, nor shall more than 60% of the solar array be visible from outbuildings or other residential property within 500 feet of the solar array.

d. At planting, conifers shall be at least five (5) feet tall and deciduous trees shall be at least 2.5 inches in diameter at breast height, and shall be planted no closer that 40 feet from the traveled portion of the adjoining road so as to prevent winter salt kill.

e. Plantings shall be of sufficient height, density and maturity to achieve the screening standard from the day of planting, and shall be maintained so provide the appropriate screening standard set out above.

f. The screening standards set out above shall be achieved entirely within the property containing the solar array, and not no "borrowed" lands or lands of any affected property owner. Whenever possible, healthy native vegetation shall be preserved and native plantings shall be used and incorporated into the screening to prevent an artificial look. Clear cutting of the property is specifically discouraged.

g. Maintenance of landscaping and screening shall be the responsibility of the property owner. Dead, dying or diseased plants shall be promptly removed and replaced as soon as possible, consistent with good landscape planting practice.

Setbacks

Setbacks for all ground mounted solar energy facilities shall be the same as any other building or facility within the land use district in which they are proposed, special attention shall be given to visual mitigation provisions previously mentioned regarding setbacks.

Hazard Areas

With the exception of transmission and distribution lines, ground-mounted solar energy facilities that are not attached to existing or permitted structures may be located in:

- Special Flood Hazard Areas (SFHAs), including floodways and floodway fringes identified on Flood Insurance Rate Maps (FIRMs) for the town, only if they meet minimum National Flood Insurance Program (NFIP) requirements, as reviewed and permitted by the municipality or the state.

- Ground mounted solar facilities shall not be located in fluvial erosion hazard areas as identified on State of Vermont Agency of Natural Resource maps.

- Shall not be located on steep slopes, with natural (pre-development) grades in excess of 15%.

Conservation/Open Space Areas:

Ground-mounted solar energy facilities with a generation capacity of greater than 100 kW are to be sited to avoid, where physically feasible:

- Significant wildlife habitat, including without limitation, deer wintering areas, core habitat areas, or interference with travel corridors for any wildlife species.

- The setback for a ground-mounted solar energy facility from surface waters and class 1 & 2 wetlands shall be at least 50 feet unless further restricted by the State.

Agricultural Land/Open Space:

Ground-mounted solar energy facilities with a generation capacity of greater than 100 kW facility, transmission and distribution lines, accessory structures and access roads are to be located on non-agricultural land or along field edges to avoid fragmentation of, and to minimize and mitigate adverse impacts to agricultural land and open fields.

- Ground-mounted solar energy facilities < 100 Kw shall not be located on primary agricultural soils

as mapped by the USDA Natural Resource Conservation Service in order to preserve such lands for agricultural use.

Designated Rutland Town Historic Sites

- Ground-mounted solar energy facilities ground mounted solar energy facilities <100Kw shall not be located within the Center Rutland Historic District.

- Ground-mounted solar energy facilities greater than 100 Kw shall not be located within 500' of a building designated as a historic building.

- The installation of solar energy facilities on historic buildings or on buildings within the Center Rutland Historic District shall be done in accordance with current Secretary of the Interior's Standards for Rehabilitation.

- The historic character of listed properties and structures shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

- Ground installations, to the extent functionally feasible, shall be installed in locations that minimize their visibility and shall be screened from view of adjoining properties per Section of Landscaping & Screening.

- Roof or building-mounted systems on a historic building shall not physically damage the structure or alter its character-defining features.

- Roof-mounted installations shall be placed below and behind existing parapet walls. Panels are to be mounted flush with and at the same existing angle as the existing sloped roof surface. On flat roofs solar panels shall be set back from the edge of the roof to minimize visibility.

NATURAL AND CULTURAL RESOURCES

Introduction

Before a community can plan for its future, it must identify natural and cultural resource assets and create clear standards for their protection. Natural and Cultural Resources are shown on Natural Resource Maps #1 and #2, which are hereby incorporated with this plan.

Goal:

- ***Protect natural and cultural resources from the impacts of development, while maintaining access to and appropriate use of those resources.***

Agricultural Resources

Although agriculture has been a prominent land use in the town since its original settlement, large-scale agricultural use of land has been steadily decreasing due to the proximity to Rutland City, demand for housing, and the increasing economic pressure on farmers within Vermont. Agricultural are located primarily along Otter Creek in the west/southwest sector of town and between North Grove Street and East Pittsford Road/Blueberry Lane in the north sector. A recent upswing in smaller-scale agricultural activities has increased the number of farms in the region and is supporting a growing agricultural economy.

An analysis of settlement patterns in Rutland Town indicate that only a small number of structures are currently standing on the highest quality soils in the community. Land designated as "prime" agricultural lands comprise 22% of the town's total and land. 17 structures (1%) of the total number of buildings in town are located on what are considered to be prime or statewide agricultural soils.

Forest Resources

Most of the forestland is located on slopes bounded by West Rutland and Proctor to the west and by Mendon to the east. There is a small amount of valuable timber, but most of the land is used as a scenic and recreational resource--hunting, hiking, bicycling, and cross-country skiing.

Like high quality agricultural soils, high quality forest soils are scattered throughout the Town. High quality forest soils are not limited to any particular land form. It is important to note that many soils classified as having high potential for agricultural production may also have high potential for forestry. This is because many of the physical and chemical characteristics that make land productive for annual crops are also desirable for tree growth.

Forests serve important functions in maintaining wildlife habitat connectivity and managing stormwater and flood impacts. Forest areas shall be protected during development.

Thirty-eight parcels in Rutland Town are enrolled in the State of Vermont Use Value Appraisal Program (Current Use). In order to retain the potential for future agricultural and forest uses, development should be discouraged on the Town's limited amounts of these areas.

Mineral Resources

The extraction and processing of mineral resources is a significant economic activity in Vermont and Rutland County. Rutland Town lies just east of economically valuable slate and marble belts (although marble has been quarried in the past, there are no current commercial mineral extractions), and sand and gravel resources are present, particularly in the northeast corner of town.

Mineral extraction and processing operations shall not be located in areas which would adversely impact residential neighborhoods with regards to traffic, noise, dust, vibration, aesthetics and odors.

Steep Slopes

The degree of slope, defined as the number of feet of vertical rise in 100 feet horizontal distance, has direct implications for most land uses.

Development on steep slopes (over 15%) creates environmental issues such as increased erosion, sedimentation, and flooding. These areas are also home to sensitive natural and cultural resources. Costs of site improvement, construction, maintenance, and delivery of public services (school bus, fire, etc.) increases when development occurs on steep slopes.

Development shall be avoided in areas with slopes greater than 15%.

Rare and Endangered Plants and Animals and Wildlife Areas

Natural heritage sites incorporate rare plants and animals that are native to the state and considered rare for one or more reasons, as well as natural communities that are either rare

habitat types in Vermont or among the best examples in the state of a common community type. There are four natural heritage sites in Rutland Town.

Rutland Town is an important wildlife habitat area and migration corridor. Because of its physical setting along the Otter Creek and at the confluence of the Region's two primary valleys, many larger and smaller animal and bird species make use of land and water within the Town. There are few undisturbed areas remaining in Rutland Town. Three key areas for wildlife habitat connectivity remain in the Town:

- In the northwest, between the Pine Hill Park area of Rutland City and the Town of Proctor (where two rare, endangered, or threatened species reside).
- In the southwest corner of the town, where limited undeveloped areas serve as the last connection between two habitat areas of the Taconic Mountains in Clarendon.
- In the southeast corner of the town, adjacent to another rare, threatened, or endangered species and linked to the larger undeveloped areas of Mendon and Shrewsbury.

The most critical component of wildlife survival, according to Conserving Vermont's Natural Heritage, a book produced by the Agency of Natural Resources, is the maintenance of blocks of connected habitat and migration land. In other words, it is critical that large tracts of land be connected versus existing in isolation.

Deer, the largest of the animals typically found in Rutland Town, have several mapped deer wintering areas in the Town, which occupy a total of 1,627 acres, 13% of town. Typically, deer wintering areas are located predominantly in areas of low, south facing slopes and along watercourses. In Rutland Town, they are located at the extreme northwest comer of the town, east of Prospect Hill, and in the southeast corner of the town.

Rare and Endangered Plants and Animals and Wildlife areas are shown on Natural Resource Maps #1 and #2. Development shall occur in these areas or in ways that minimize the loss of connected habitat areas.

Open Space and Scenic Resources

In the course of planning for Rutland Town's future, it is important that the presence of high quality open space and scenic resources--broad scenic areas as well as scenic landmarks--be recognized and the integrity of such resources be preserved. Open space and scenery entice many people to visit the area and add greatly to the quality of life enjoyed by the people who live here.

Open space and scenic resources are fragile. Misuse or overuse can destroy the delicate balance of form and pattern that defines scenic beauty and attractive open space. Open space and scenic resources shall be considered during subdivision review and protected from development.

Historic Structures

Areas that have historic value to present and future residents of the Town enrich the community greatly. As the Regional Plan states, "Standing buildings and structures may be important because of their significant architectural design and fine material and craftsmanship or because they illustrate an important aspect of history."

Often they too help tell the stories of everyday life that were never written down. These clues to understanding our past can be found in such individual structures as elaborate mansions, simple workers' houses, bridges, factories, and barns, as well as the groups they form in village centers, residential neighborhoods, and farm or industrial complexes. Historic structures, through their locations, architectural features, and historical associations, testify to patterns of Vermont life in the late 18th, 19th, and early 20th centuries and serve as the visible reminders of the occupations, activities, philosophies, and priorities of Vermonters who came before us.

The Town has a large number of historic structures, which are described in the Rutland Town chapter of "The Historic Architecture of Rutland County". According to this report, there are 86 properties listed on the Vermont Historic Places Register. Of these, the majority are residences. However, they also include farms, mills, a powerhouse, a bridge, a post office, and a church.

The Town also includes one officially recognized historic district. This district, which is located at the intersection of Business Route 4 and East Proctor Road and called the Center Rutland historic district, consists of 24 of the Town's 86 historic properties.

Water Resources

Water resources include both surface waters such as lakes, ponds, reservoirs, streams, wetlands as well as ground water contained in the pores of soil materials such as aquifers and springs. These resources are shown on Natural Resource Maps #1 and #2.

Watersheds

In order to discuss a community's water resources, it is important to understand the nature of the community's watersheds. A watershed is a distinct, topographically defined land area that drains into a single river, river system, or standing body of water. Because rivers join to become larger rivers, many watersheds may be considered "subwatersheds" of larger watersheds. The activities taking place in a watershed play a critical role in the quality of the water draining from it. If a watershed is mostly agricultural, for example, then the quality of the water leaving that watershed will reflect prevailing agricultural practices. If a watershed is mostly forested, then the water leaving that watershed will reflect prevailing forestry practices.

A watershed also defines the land that contributes water towards the watershed's supply. Public water supply watersheds, inducing Rutland City's, lie within Rutland Town and need to be carefully guarded from contamination and adverse impacts to quantity of supply.

In Rutland Town, there are three watersheds that feed into Otter Creek: Cold River, Clarendon River, and East Creek. Since Otter Creek drains into Lake Champlain, the Town is part of the Champlain Basin. A number of small tributary streams drain the western flanks of the Green Mountains to form the headwaters of Cold, Moon, and Tenney Brooks.

The City of Rutland holds 4,400 acres of "Class A" Watershed in Mendon and water is transmitted to a filtration system in Rutland Town. These lands shall receive the highest level of protection. Should septic systems, faulty sewer lines, landfills or other types of development be located too close to the supply, contamination may result. Likewise, should significant or intense development requiring on-site water sources occur within or

immediately adjacent to the watershed, the quantity available to the public system could be adversely affected.

Rivers and Streams and their corridors

Otter Creek is the most prominent watercourse in the town, providing a strong visual focus as it meanders through the fertile farmlands along the valley floor. Flowing northward, Otter Creek drains approximately 307 square miles of land by the time it reaches Center Rutland. Lands along the creek are highly productive wildlife areas offering significant habitats and range to wildlife and waterfowl. Otter Creek slopes very gradually, averaging only 1/2 to I foot per mile, contrasting sharply with its steep tributaries that may drop tens of feet per mile of river. Otter Creek is not subject to extreme flooding conditions because of its large valley storage capacities and tributaries that are well distributed along the river, helping to desynchronize flood crests.

East Creek, draining approximately 53 square miles, has several very steep tributaries draining the western slopes of the Green Mountain. Mendon Brook, a major tributary of East Creek, drains the majority of Green Mountain uplands in the Town of Mendon.

Stream Bank Erosion

The vast majority of flood damage suffered in Vermont is caused by "fluvial erosion", that is, stream bank erosion. To address this issue, the Vermont Agency of Natural Resources conducted a Stream Geomorphic Assessment (SGA) of the Otter Creek, Moon Brook, Mussey Brook and East Creek within Rutland Town. 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, as well as compromised habitat for aquatic species.

Impaired Waters

There are several waterbodies that flow through Rutland Town that are considered "impaired", meaning that they consistently do not meet Vermont Water Quality Standards. These waters include the Otter Creek, Mussey Brook, Moon Brook and East Creek. In addition, the Clarendon River is listed as "stressed" and has been identified as needing further assessment to address concerns about sedimentation, nutrient enrichment, high levels of pathogenic bacteria, and stormwater runoff due to agricultural runoff, industrial and urban runoff.

The Otter Creek mainstem is considered impaired due to high levels of pathogenic bacteria due to suspected agricultural runoff, malfunctioning septic systems, wastewater treatment plant overflows, and wildlife. In addition, the Otter mainstem is listed as "stressed" and has been identified as needing further assessment due to concerns about excessive sedimentation, organic enrichment, toxics, and metals.

The Moon Brook has been identified as consistently not meeting Vermont Water Quality Standards due to stormwater runoff. Increasing volumes of stormwater runoff from new impervious surfaces in the Moon Brook watershed are causing erosion, nutrient enrichment, toxicity in the water column or sediments and stream channel enlargement and /or movement. Stormwater management will be necessary for older intermitted and untreated stormwater discharges to Moon Brook. A hydrologic analysis of the watershed and delineation of stormwater impact areas will have to be completed.

East Creek is also listed as impaired due to stormwater runoff, but unlike the Moon Brook watershed, this impairment is primarily related to combined sewer overflows from Rutland City. However, the Creek has also been identified as "stressed" due to low dissolved oxygen levels from hypolimnetic withdrawals of unlicensed hydro-electric facilities in Chittenden and Rutland Town. Additionally, geomorphic assessment of East Creek indicates that it continues to adjust from historic, physical modifications.

Tinmouth Stream becomes Clarendon River just below a wetland complex in the West Rutland area. This is important in contributing to the high water quality and natural flow conditions in the Clarendon River. Thanks in part to this, the Clarendon River has very good spawning and nursery habitat throughout this reach for trout species which are an important sport fish on the river and in the State of Vermont. However, as the Clarendon River enters the more developed areas of West Rutland and Rutland Town, it becomes affected by thermal modification due to the loss of riparian vegetation as well as sedimentation from stormwater runoff and eroding streambanks.

Stormwater

The management of storm water 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.

Recent development activities – most notably the addition of several new businesses and their parking areas - have presented the Town with a challenge of minimizing pollution resulting from stormwater runoff. Several of these new developments, however, have proposed innovative solutions that propose to address these concerns. The Town, and State regulatory bodies, should pay close attention to these systems to determine their ongoing functionality. If they prove to be successful, officials could use them as models for addressing stormwater.

Floodplains

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.

[See flood resilience chapter]

New development or fill shall be discouraged in the Special Flood Hazard Area and Fluvial Erosion Hazard Areas. The potential for flood damage in these areas is high and is likely to cause expense to land owners, the Town, and State and Federal Governments. As a participating town in the National Floodplain Insurance Program, the town has municipal jurisdiction regarding floodplain protection through floodplain management regulations adopted by the town.

Wetlands

Wetlands are land areas that are saturated with water at least part of the year. Although precise definitions vary, wetlands are normally identifiable by vegetation, soil type, and/or frequency of ponding. Wetlands include marshes, swamps, sloughs, fens, mud flats, and

bogs. In addition to providing important wildlife habitat, values (or functions) of wetlands include storing stormwater (they store large quantities of water during periods of high runoff and gradually release water during low flow periods), purifying surface and groundwater supplies, recharging aquifers, controlling erosion, providing areas for recreation, and serving as education and research areas. Wetlands are of crucial importance to the surface water regime. It is important to note that loss of this storage capacity will not only adversely affect stream behavior, but will also increase floods and reduce stream flow during critical low flow periods.

Wetlands play a vital role in protecting and maintaining the water quality of our rivers and lakes. Wetlands are also important for the preservation of water quality and wildlife. Biological activity of a wetland area enables absorption and assimilation of nutrients, purifying, to some extent, the water that is discharged. Wetlands also play critical roles in the reproductive cycle of many threatened species. Wetlands support plants that can help purify water by taking up nutrients and incorporating them into plant materials while releasing oxygen. Finally, migratory birds use wetlands in the area as stops along the Atlantic Flyway. This habitat is crucial during several periods in a bird's life cycle, supplying quality breeding grounds and resting or staging areas essential for migration.

The Vermont Wetland Rules identify and protect 10 functions and values of "significant" wetlands and establish a 3-tier wetland classification system to identify such wetlands. The first two classes of wetlands (Class One and Class Two) are identified on the Vermont Significant Wetlands Inventory (VSWI) maps and are protected under the wetland rules. Municipalities can further protect wetlands by limiting or prohibiting development in designated wetland areas in town zoning ordinances.

As shown on Natural Resource Map #1, the area in Rutland Town that is occupied by wetlands, as identified by the National wetlands Inventory is 562 acres, or 4.5 percent of the Town's area.

Farming wetlands or draining wetlands for agriculture is not a significant problem in Bennington and Rutland counties. Drainage, filling, and fragmentation are more of an issue associated with development and road construction. There is still a general lack of understanding by the public of the important functions and values of wetlands. The wildlife habitat values of wetlands are better understood and appreciated than others. Education and outreach conducted by conservation districts and other partners would educate citizens as to the value of wetlands to reduce flooding, filter nutrients, and recharge ground water. Several federal programs are available for landowners use to enhance or protect wetlands including: WRP (Wetlands Reserve Program), WHIP (Wildlife Habitat Incentives Program), CRP (Conservation Reserve Program), and Partners for Fish and Wildlife Program. The Vermont Land Trust, a nonprofit conservation organization, has also been very successful at protecting wetlands in Vermont.

State wetlands rules control development in wetlands rather than prohibit it outright. Farming and forestry uses, low impact recreation, utility poles, and incidental residential uses are allowed as long as the outlet of the wetland or its pattern of flow is not altered and dredge and fill restrictions are met. Federal law also governs the use of wetlands. Federal regulations are different from state regulations, although not necessarily more strict or more lenient. The primary federal law on wetlands is the Clean Water Act. The Clean Water Act regulates dredging and filling of all public waters, which include the nation's wetlands.

Ponds

Only a handful of small ponds exist within Rutland Town, the largest of which is Rocky Pond on the edge of Pine Hill Park. No water quality data currently exists for the ponds within the Town. Both Muddy and Rocky Ponds have served the community as recreational resources for a number of years. In order to help maintain water quality and wildlife habitats within the town, however, vegetated shoreline buffer areas should be present.

Groundwater

Groundwater is a critical water resource, particularly in a rural area such as Rutland Town. It meets needs for a range of uses, including residences, agriculture, and business.

The main reasons for planning for groundwater are to protect the health of area residents and insure adequate supplies of water for the future. Without clean groundwater supplies, the community could incur significant costs in terms of health and/or in locating alternative supplies.

Groundwater related planning issues include the potential impact of pollutants (particularly non-point pollutants) on the quality of local aquifer and groundwater supplies. Similar to other areas of Vermont, non-point source pollution is the major source of water use impairment to surface waters in the Rutland Town. Unlike point source pollution, such as a direct discharge or outfall pipe, non-point source pollution is more diffuse, harder to quantify and more difficult to control. Examples of these are runoff from parking lots, back roads, fertilized lawns, and runoff from agricultural fields. It has been well documented that urban and suburban non-point sources contribute more phosphorus and sediment per acre than runoff from the working landscape.

Natural and Cultural Resources Strategies

Land Resource Strategies

- Incorporate measures that provide protection for land resources during development
- The Town's primary agricultural soils should be conserved for agricultural uses if they are economically viable; development should be steered away from prime agricultural soils.
- Forested lands should be conserved to protect against erosion and to preserve their scenic and recreational qualities.
- Wildlife habitats in the Town should be conserved; the impacts of development and land use change on these habitats should be minimized through the use of conservation easements, purchase, lease, tax incentives, or other measures. prohibited
- Land development is discouraged on slopes greater than 15%.
- Sand and gravel operations should be carefully reviewed to ensure the public's safety and freedom from noise, dust, traffic and other intrusions in residential areas.
- Identify other lands to prevent flooding by maintaining vegetated buffer strips in riparian zones surrounding streams and rivers; maintaining; upland forests and watersheds for predominately forest use; and requiring new development to preserve vegetated riparian buffer zones that are consistent with state riparian buffer guidelines.

Historic Resource Strategy

- Preserve historic structures and scenic, cultural, recreational, and unique natural resources during development.

Water Resource Strategies

- Protect water resources so that water quality is maintained, access is preserved, erosion and encroachment are minimized, and public interests are advanced.
- Gravel aquifer and wellhead areas should be protected from development that would pollute or restrict the flow of water through porous soils.
- Any use or development proposed to be located within or adjacent to the watershed of a public water supply or community well system shall be carefully reviewed for potential detrimental effect to both the quality and quantity of the supply.
- No development or earth disturbance of any kind should occur within fifty (50) feet of any shoreline and no on-site septic disposal facilities should occur within one hundred and fifty (150) feet of any shoreline.
- Development in Special Flood Hazard Areas and Fluvial Erosion Zones shall be discouraged.
- Land development resulting in the loss of wetland storage capacity, or impacting negatively on water quality is discouraged.
- Work to develop more consistent, accurate and thorough identification of wetlands areas through the use of best available data and the adoption of local wetlands regulations and updated maps.
- Enhance subdivision regulations to protect wetlands and prohibit structural development or intensive land uses in Class One or Class Two wetlands unless there is an overriding public interest.
- Land development , including the construction of roads, that results in the loss of wetland storage capacity, or negatively impacts water quality is discouraged.
- Consider creating a Regional Watershed Stormwater Management group with other area jurisdictions to reduce runoff pollution into local waterbodies.
- Reduce the percentage of impervious surfaces by limiting the number of rooftops and paved areas, by using permeable surface materials, employing disconnection practices, and by implementing Low Impact Development (LID) principles and other methods to increase stormwater retention and infiltration.

HOUSING

Introduction

Housing, especially housing that the average Vermonter can afford, is an increasingly important issue for communities in Rutland County and the State of Vermont. This chapter supplements information on Rutland Town's housing included in the Community Profile section of this plan, and includes an analysis of housing affordability in Rutland Town and strategies to achieve housing goals of the community.

Goal:

Promote a diversity of safe and affordable housing types and choice between rental and ownership in a variety of locations suitable for residential development and accessible to employment and shopping centers by all modes of travel.

Existing Housing

Rutland Town's housing stock was made up of 1972 housing units in 2012, up 8.6% from 1816 units in 2009, the majority being single-family units. In 2010, only 9.3% percent of the total was classified as multi-family units, which include duplexes.

Rutland Town contained 1,754 households in 2010, all but 47 of which were year-round. Of those, 22% were renter-occupied and 72% were owner-occupied, a figure that remained essentially consistent from 1990. 6.2 percent of Rutland Town's housing units were vacant in 2010. Vacancy rates are viewed as an indicator of the "tightness" of a housing market.

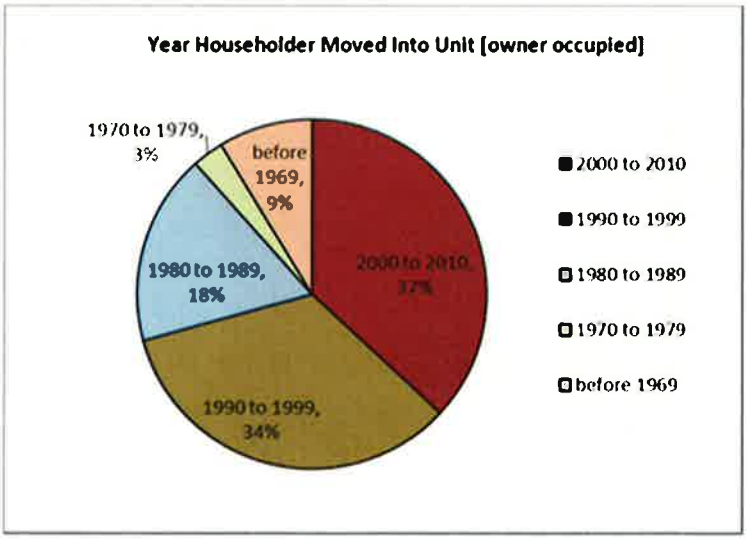
Home Ownership 2010

Source: State of Vermont housing data profiles 2010

2010 Households	Owning home	Renting home	Number of Families	Average household size	Average Family Size		
	1348	406	1141	2.27	2.78		

As a result of the increase in housing units and proximity to Rutland City, and its related service, approximately 75% of the land in Rutland Town is used for residential uses.

Corresponding with the town's growth trends, 70% of Rutland Town housing units have been constructed since 1970 and 71% of Rutland Town householders have moved into their units since 1990.



Source: US Census, 2014

Location of Housing

Homes are spread throughout most of Rutland Town, due to its location surrounding the City and relatively gentle topography. Homes to the north and west of the City are in mostly rural settings, while more widespread development to the east of the City has led to larger, more suburban-style neighborhoods. Multi-family housing is found primarily immediately adjacent to Rutland City to the east. Two senior housing complexes – the Gables and the Meadows - are also located in Rutland Town east of the City.

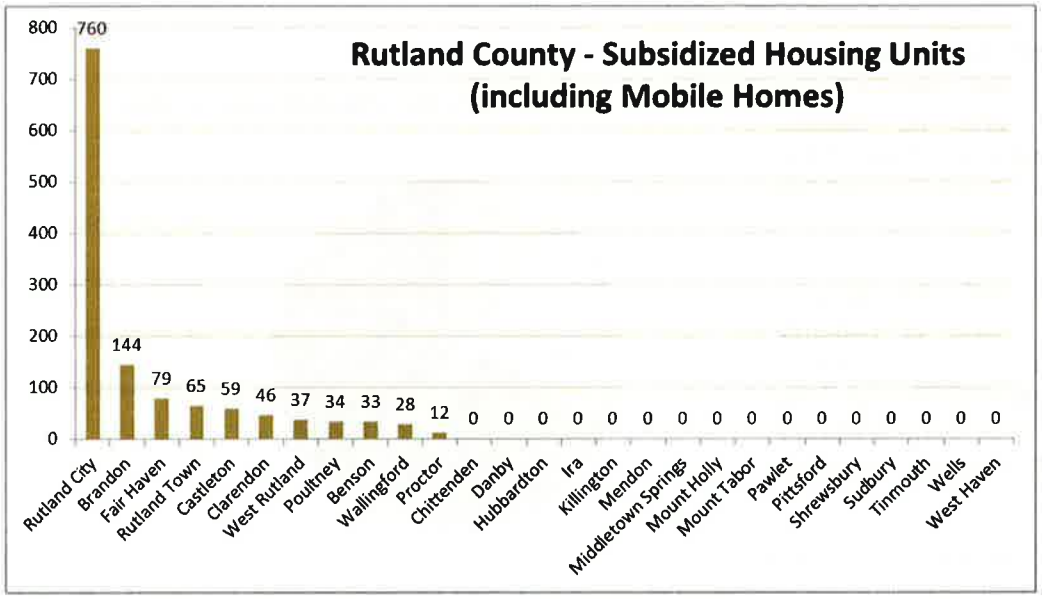
Housing and Rental Cost

The availability and affordability of housing can play a significant role in the health and development of a community, especially where increased industrial and commercial business development is desired. The cost of housing and land has risen throughout the Rutland Region over the past decade, and the price of homes in Rutland Town is consistently higher than the County as a whole.

According to the US Census, the median home selling price in Rutland Town in 2013 was $199,000, compared to the County median price of $140,000 and State of Vermont median of $200,000. In 2013, the average sale price of a primary residence in Rutland Town was $221,973.00, compared to the Rutland County sale price of $160,338.

Housing is generally considered to be affordable to a hosehold when it is paying no more than 30% of its income for housing costs (rent, mortgage, electricity, water, etc.). In 2011, 47% of renters and 22% of owners were paying more than 30% of income on housing. These figures are slightly below the Rutland County and State of Vermont amounts.\

According to the National Low Income Housing Coalition, 2014 *Out of Reach* report, the fair market rent for a two-bedroom unit in Rutland County is $825 per month. The State of Vermont rate is $1,007 per month. In Rutland County, to afford this rent an annual income of $33,000 or hourly wage of $15.87 is required in order to not spend more than 30% of income on housing. At the Rutland County mean hourly wage of $10.35, an individual has to work 1.5 full time jobs to afford the fair market rent. Rutland Town has 65 privately-owned units of subsidized family housing units.



Source: VT Housing Data.org

Housing Strategies

- Support the development of affordable housing, in areas most suitable in terms of housing need, environmental impact, employment opportunities, public services, and transportation.
- Encourage the retention of existing affordable housing, and encourage the maintenance of aging housing units.
- Assist public and private agencies involved in planning, financing, and developing affordable housing.
- During the Subdivision review process, require housing to be accessible to employment, services, educational, and recreational facilities by multiple forms of transportation.
- Modify the Land Use Map to provide new housing, including multi-family housing, in areas within or adjacent to exiting settlement patterns.
- Work to redevelop former industrial, commercial, brownfields and institutional buildings into housing and/or mixed-use structures.
- Allow the conversion of larger homes to multi-family housing if municipal sewer and water are available and as allowed by limits that control density.
- Explore the need for a set of housing and rental building codes that can be recommended to the Selectboard in order to protect the health and safety of Rutland Town residents.
- Provide easy access to information about affordable housing on the Town website. Include both educational material for the general public and information about housing resources available to those in need of affordable housing, or help purchasing a first home.

CHILD CARE

Introduction

Accessible, affordable, quality child care is an integral component of land use planning and closely linked to the affordability of communities. Many families lead lives that require some type of child care outside the home. Recognizing this reality, child care is an important community need. Availability of child care can have direct positive effects on the growth and vitality of the community.

Goal:

To provide access to quality and affordable child care for all Rutland Town residents.

Background

In 2013, there is 1 Registered child care provider and no Licensed child care providers in Rutland Town. It is important to recognize that while the Town's resident population is

relatively small, its role as a primary employment center in the Region creates a much greater need for services such as child care providers. Information regarding providers can be found at www.brightfuturesinfo.org.

Throughout the Rutland Region there are 85 registered home care providers and 69 licensed child care centers, which include early childhood and school-age care programs. Rutland City accounts for nearly half of the capacity of the region's providers, with 30 registered homes and 27 licensed centers.

To improve the quality of services, Vermont has established the Step Ahead Recognition System (STARs) program to recognize regulated child care, preschool, and afterschool programs that take measures to exceed state standards in providing services to children and families. STARs ratings range from 1 to 5 stars, based upon their success in five areas of performance (e.g. staff qualifications). As of January 2014, 72 child care providers in the region were participating in STARs. Sixteen of those providers achieved the highest rating of 5 stars, and 18 had a rating of 4 stars.

Childcare Strategies

- Town policies and ordinances shall consider access to child care services.
- Town policies and ordinances shall provide quality environments for children in child care.
- Support programming by the Town's school and Recreation Department for kids during after school and summer time hours.