Rochester
Town Plan

DRAFT for Selectboard Hearing
April 9, 2018

Written with assistance from the Two Rivers-Ottauquechee Regional Commission.

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I. Introduction

A. Background

This Rochester Town Plan is a comprehensive document which replaces the 2013 Town Plan. It is required by state statute to be updated every eight years and is prepared in conformance with the provisions of Chapter 117 of the Vermont Municipal and Regional Planning and Development Act. The Town Plan provides a guide for the future of Rochester's natural and human environment.

B. Why Have a Plan?

The Town Plan provides the basis for the implementation and administration of the zoning bylaws and subdivision regulations. As such, it represents one element in the ongoing planning process, which must respond to changes within the community and to trends and factors which influence it from the outside. The Plan must serve to promote the health, safety and welfare of all the Town's residents. It also serves as a guide for development review within the Town. It provides a basis for funding initiatives and grant applications. Equally important it articulates planning goals and objectives and outlines steps for fulfilling them. The Plan, however, is only a document. It is the people of the community who will put the Plan into action, in striving to sustain and enhance the special quality of life we value and experience in Rochester.

A municipal plan is intended to act as a vision for the community. A community imagines what the future should be, and then starts putting these ideas into action. Communities with little or no planning are more likely to experience problems of over-development, high property taxes and increased demands for community services. Their lack of local control leaves them subject to decisions made at the state level that might not accurately reflect their vision. Rochester, like every town, has choices in the way it provides for orderly growth and in the way it balances growth with natural and built environments. Planning is done to meet the needs of the people who are here now and for those in the future.

The Plan includes a comprehensive analysis of Rochester's demographics, jobs, economy, schools, roads, housing, natural resources, and land use. This analysis of current conditions in the context of goals for our community, leads to policies and recommendations that can help our community make wise choices and provide direction for the patterns of its future growth.

Here are some specific reasons to have a Town Plan:

- Guide for local regulations - State statute requires that all land use regulations (zoning, subdivision, etc.) must be consistent with the goals of the local plan. The municipal plan functions as the framework under which these regulations operate.
- A guide for community investments - Information in the plan can be used for developing the recommendations contained in a capital budget and program, for establishing a community

development program, and for providing direction to the Selectboard for such things as community services, emergency services, recreation and municipal facility development to name a few. It also serves to guide the decisions made by the Zoning Board of Adjustment when permits come before that board.

- Support for grant applications and planning studies - Many of the state-run grant programs available to Rochester consider whether the town has stated a need for its grant request. Studies are often called for within a plan, and the funding for such projects can come from state sources as well.
- A guide for future development - The District Environmental Commission considers Town Plans during an Act 250 hearing under Criterion 10. The Plan should clearly define what is and is not appropriate in terms of development within the community.

C. Vision Statement

With input from the community, the Rochester Planning Commission has attempted to capture the eight-year vision for the future of Rochester in this document. This Plan describes a vision of a community that works together for the good of our town, where people respect and use the land well, where forestry, agriculture, and small businesses live comfortably together.

In 2011, Tropical Storm Irene swept through Vermont leaving devastation in its wake – a substantial amount of which occurred in Rochester. This extreme event brought out the best in residents and our Town Government during a very trying time. Our community stood strong and worked hard to help those who were hurt most by Irene. The serious impacts of this event have increased the community's awareness of the need to be resilient, self-sufficient and most of all, to continue to foster the deep caring and respect our residents have for Rochester. It is with this vision statement in mind that this Plan has been written.

D. History

The Charter of Incorporation was granted to Rochester on July 30, 1781, by Governor Thomas Chittenden and the General Assembly when Vermont was still a Republic. However, Rochester existed before 1780, as witnessed from notes of Jonathan Carpenter of Barnard when he wrote that he "scouted the upper White River as far as Rochester and found no evidence of ye enemy."

Rochester is in the center of Vermont and in the northwest corner of Windsor County. It is a most oddly shaped Town, abutted by eight towns and three counties. The White River runs north to south through the Town. There are mountain ranges on both sides of the River, creating a narrow valley. The picturesque village is located approximately in the center of the township. The Town contains approximately 36,000 acres and, of that about one-third is owned by the governments of the United States, the State of Vermont and the Town of Rochester.

Some of the early settlers were from Rochester, Massachusetts -- no doubt the source of the name of the Town.

In 1781 the first ordinances were established. The Charter stated that "each proprietor of the Township of Rochester, his heirs and assigns shall plant and cultivate five acres of land and build a house at least

eighteen feet square on the floor, or have one family settled on Each Respective Right within the term of three years next after the Circumstances of the War(e) will admit of Settlement with safety, or penalty of the forfeiture of Each Right of Land in said Township not so improved or settled and the same to revert to the freeman of this State to be by Representatives regranted to such persons as shall appear to settle and cultivate the same. The Pine timber suitable for the Navy be reserved to the use and benefit of the freemen of this State."

Although Rochester was annexed to Windsor County in 1783, it was not until 1788 that there were sufficient settlers to require a town government. The first town meeting was held May 15, 1788.

The first real planning, maybe by luck, but a key piece of planning none-the-less, occurred in July of 1787. Ebenezer Burnham deeded four acres "to the said Inhabitants & Proprietors of Rochester to build a meeting house on, for Burying yard, training field and such other uses as the Inhabitants and Proprietors of the said Rochester shall see fit to put to." Today, that four acres is known as the Park, the Green, the Square or the Common, call it what you choose. Rochester residents will be forever grateful to Ebenezer Burnham for his generosity and foresight! It is the "centerpiece" of the Valley.

In 1792 the Town purchased land across the road and a little north (back of Mac's Valley Market) for the Village Cemetery. This purchase kept the full four acres of the Park open for public use. As of this writing we have lost some acreage to roads, but the rest of the Park is still there and beautifully kept.

By 1800, Rochester's population was over 500 and the next several decades were a time of building town institutions and infrastructure. A public library opened (1801) and churches and schools were organized in the village and outlying districts. By 1820 Rochester's population was 1148, and eventually, 13 school districts were established throughout the town.

Leading industries during the remainder of the 1800's included talc mining, granite quarrying, sheep and dairy (56!) farming, lumber and wood products. The latter part of the century saw the first graduation exercises at Rochester High School (1894) telephone service (1894), and electric service (1890) brought to the town. Other services demanded by the growing community included Fire District #1 (1890), the town reservoir (1895) as well as a host of retail shops.

The 1900's opened with the coming of the railroad and thus, greater opportunity for travel and commerce. 1901 also saw the first Annual Old Home Week with a concert by the Rochester Town Band, which played on the Park on summer Sunday evenings. Agriculture remained a primary economic force, with the processing of wood products and grain, lumbering, blacksmithing, marble quarrying and associated retail services all contributing to a vibrant community.

In the late 1970's Rochester experienced a growth in population, partly due to an influx of people seeking a slower pace of life in Rochester's beautiful setting. Vacation homes and new permanent homes were built, and the town's economic mix turned away from agriculture (with only one dairy farm now remaining) and more toward "quiet industries" and the construction and service sectors.

Our natural resources of lumber, agriculture and Verde Antique marble have contributed to the Town's life support through the years and continue to do so, but to a lesser extent. Today, with the changing life styles, more people go out of Town to earn a living and recreation pursuits play a larger part in the life of the Town.

Rochester's village has always been a center of commercial activity. The library, churches and schools were established in the early days of the Town. Today, in 2013, there are many small businesses that are favorable to our environment, and a stable population is available to be employed by them. There are many vacation homes, but regrettably, only a few farms are still operating.

E. Defining Rural Character

Rochester is a small but vibrant community. Its thriving village center provides a strong cultural and commercial center for its residents. Development outside of the village center remains primarily residential in nature and is generally clustered around existing roads. It is sparsely organized, blending in with the landscape in such a fashion that it does not negatively impact the scenic quality of the community. Most town roads are dirt roads that are more appropriate for the types of traffic common to residential development than large-scale commercial development.

The rural nature of the community is a mix of forests, agricultural land, and valley floor, all of which create an aesthetically pleasing natural environment. The valley floor is rich in soil quality as well as open, scenic beauty. To the West, much of the land is unpopulated forest that is part of the Green Mountain National Forest.

II. Statement of Objectives, Polices and Programs

A. Objectives

- To provide for the orderly growth of the Town of Rochester while protecting its unique setting, environmental integrity and scenic beauty.
- To protect the quality of the White River and West Branch.
- To encourage the active and sustainable use of our agricultural and forest lands.
- To encourage business enterprises compatible with the character of Rochester which improves the economic base and provides employment opportunities.
- To encourage maintenance of the Rochester Village area as a center for commercial activity for the Town.
- To maintain the Village Park area, while preserving the character and architecture of the Park's historic setting.
- To establish procedures to coordinate with other town agencies and groups which affect Rochester, such as schools, parks, sewer, etc.
- To maintain public recreation facilities and encourage open space both public and private.
- To consider long term solutions to problems of sewage treatment and solid waste disposal.
- To encourage the citizenry to acquire a basic understanding of their duly adopted plans, regulations and ordinances with a goal of voluntary compliance.
- To encourage the development of alternative energy resources at appropriate scales which fit with the character of the Town.
- To protect the citizens of Rochester, their homes and businesses, and public infrastructure from the damage that can occur during severe weather events, particularly in the Flood Plain.

B. Policies

- To continue to properly administer the Zoning Regulations adopted by the Town, as amended September 28, 2009, and make revisions as deemed necessary.
- To continue the effective administration of our subdivision regulations as adopted November 22, 2010.
- To continue to administer the permanent Flood Hazard regulations which are part of the Zoning Regulations, and discourage building in the flood hazard areas.
- To maintain a communication link with the United States Forest Service concerning their comprehensive planning program.
- To support our school system and public library, which have proven to be major factors in the building of a cohesive community.
- To consider the needs and capacities of the school system, fire department, rescue squad and law enforcement in our planning efforts.
- The Planning Commission welcomes a larger input by the citizens and business community for ideas and expertise to assist in the performance of its duties.

C. Programs

- The Rochester Zoning Ordinance as amended September 28, 2009.
- The Rochester Subdivision Regulations adopted November 22, 2010.
- The Rochester Sewer Ordinance adopted August 7, 1974, as amended July 26th, 2004.

III. Tropical Storm Irene

On August 28, 2011, the State of Vermont found itself in the path of Tropical Storm Irene. The storm caused power outages statewide for approximately 50,000 households and widespread flooding that resulted in six deaths. Record amounts of rain fell in a short amount of time resulting in catastrophic flooding across the state. Rainfall totals were between 4 and 7 inches with some locally higher amounts up to 10 inches concentrated during a 6-8-hour period. The Otter Creek reached an historic crest (nearly 4 feet over the previous record in 1938) and the Mad, Winooski and White Rivers were very close to records established in 1927. Those main stem rivers were fed by many smaller tributaries that caused damaging flash flooding throughout the central and southern parts of the state.

More than 1500 Vermont families were displaced, and the transportation and public infrastructure was decimated. Of Vermont's 251 towns and cities, 223 towns were impacted by Irene, causing household damage, infrastructure damage or both. Forty-five (45) municipalities were considered severely impacted. Hundreds of state and local roads were closed for an extended period completely isolating numerous towns and limiting access to many others. This resulted in state and National Guard missions to deliver emergency supplies by ground and air. The flooding also caused the first-ever evacuation of the State Emergency Operations Center due to access challenges and the impact to the buildings and support mechanism in the state office complex in Waterbury.

By mid-afternoon on Sunday, Nason Brook, Rogers Brook, Breakneck Brook, Brook St. Brook and Cold Brook, had turned into raging rivers carrying the runoff from their steep banks. With culverts blocked at the point where those brooks cross under Route 100, both Nason Brook and the Brook St. Brook breached their banks and flowed swiftly across Route 100, making passage nearly impossible. Brook St. Brook undermined the foundation of a century-old home, causing it to collapse, nearly trapping one resident as he tried to evacuate. At Nason Brook the current across route 100 was so strong that some residents had to be rescued by bucket loader. In the wide area that frequently floods along the banks of the White River, the water reached a height of ten feet (the rim of a basketball net) before it began to abate.

1 - View of Route 100, Brook St. Brook (Source: Mansfield Heliflight)

Monday, August 29th

Some of the most severe damage took place in and around Rochester and its neighboring communities, including Hancock, Granville, Bethel, Pittsfield and Stockbridge. Few communities were impacted on

the scale that Rochester was. By the morning of August 29th, the town of Rochester found itself completely and utterly cut off from the rest of the world. The White River had washed away the electric substation that fed power to the community. Telephone and cellular communications were completely down. Highways leading out of Rochester (Route 100, Route 73 and Camp Brook Rd.) were all so severely damaged that no one could get in or out by vehicle.

2 – Damaged Woodlawn Cemetery, Nason Brook (Source: Associated Press)

In addition to the damage to municipal infrastructure, homes had been devastated. The White River overflowed its banks, destroying and inundating valuable farmland. Many of the small tributaries that feed run-off from the hills into the river valley became far more violent and dangerous than they had ever been. The dangers of fluvial erosion became apparent as these small streams attempted to find equilibrium under the sudden and massive amount of rain; they broke through their usual quiet meanders, taking away soil, trees, rocks and in some cases damaging or destroying homes.

Particularly alarming was the damage caused by Nason Brook. The Woodlawn Cemetery, which is built on sandy soils, found itself quickly eroding away as an over-full Nason Brook rushed toward the White River. The damage disinterred 50 coffins and caused a potential community health hazard, not to mention the significant emotional damage caused by the loss of remains.

3 - Residents line up to get food from Mac's Market (Source: Associated Press)

While many communities devastated by Irene struggled with where to begin with the recovery process, Rochester rallied together. Members of the Selectboard, emergency services and road crews met at the Town Office (command center for the incident) to determine a course of action. With cell phone coverage out, officials drove to the top of Bethel Mountain where coverage was still available and contacted state emergency officials to let them know that the citizens of Rochester were alive, but trapped and in need of assistance. The Selectboard and volunteers organized a town meeting, which was attended by nearly 300 residents after volunteers went door-to-door to notify them. These meetings continued at 1PM daily and provided residents with a much needed and valuable source of up-to-date information.

Recognizing the crisis that was affecting their community, the Town's grocery store opened and rather than allow their perishable food to go to waste, they gave it away. Four restaurants provided meals to residents, and volunteers at the Federated Church collected enough food to offer lunch on Tuesday. The

Rochester Emergency Shelter, located in the Rochester School, was activated the first night of the flood to house travelers who found themselves trapped in town. This facility continued as the primary location for meals and donated supplies throughout the disaster period. Volunteers kept the shelter operating and turned out three meals a day for an extended period, post event.
Local heavy equipment operators with excavators, bulldozers and dump trucks went to work to assist Town and State highway crews. Members of the Rochester Fire Department embraced their role as emergency responders and assisted wherever needed, doing wellness checks on individuals, conducting electric surveys with CVPS, directing traffic, staffing helicopter landing zones, assisting medical transport, and using fire hoses to remove culvert debris.

Tuesday, August 30th

On Tuesday, those in need of serious medical assistance, including four dialysis patients, were removed from town by helicopter or were driven out in four-wheel drive vehicles after road crews cleared a logging road from Barnard to Stockbridge making it passable for emergency vehicles. National Guard helicopters were able to make several drops of essential emergency materials including bottled water (the municipal water supply was working via generator, but water had to be boiled), meals-ready-to eat and blankets.

4 - National Guard members hand MREs and water to Rochester residents (Source: Associated Press)

Concerns grew about the potential lack of food in the community, as well as the lack of fuel to run generators and emergency equipment. Prescription drugs and other medical needs also became a concern after Irene. To address this concern volunteers (including members of the Bethel Fire Dept.) created an emergency system for identifying critical needs and developing protocols to order and coordinate delivery of medicines and other medical, mental health and critical care. The administrative staff at Gifford Medical Center in Randolph was essential to this effort.

Residents located on the western side of the White River were completely shut off from the rest of the community due to the failure of the bridge that connects Route 73 with Route 100. Making matters worse, bridges farther west had also failed, creating an "island". Stranded residents took responsibility for addressing their own needs during the extended period of isolation.

Wednesday, August 31st

By Wednesday, trucks owned by Central Vermont Public Service (now Green Mountain Power) began to appear around the community. Power would return days later, well short of the potential two to three weeks that was originally estimated. Residents continued to meet daily.

The Process of Recovery

In the following days and weeks, Rochester and its community members would work together to help each other recover from Irene's devastation. Groups organized to help clean up the damage to homes and buildings. Residents built a footbridge across the White River to allow those who lived on the Route 73 side of Rochester who were stranded to be able to access Route 100. Some families kept a car on each side of the river to get back and forth to work for the seven weeks until a temporary bridge was constructed.

Local groups organized cleanup events and made great efforts to keep community morale up. Local clean-up crews were joined by volunteers from across the State. Electric companies from Canada and points south assisted CVPS in the placement of a portable substation to take the place of the destroyed sub-station and transmission lines. Neighbors in Addison County volunteered their trucks and drivers; Brandon Fire & Rescue acted as the fire crew for "the Island of West Rochester" before the Route 73 Bridge was restored. The most common comment made by Rochester residents as they worked to recover from Irene was that "This community has been fantastic".

5 - Temporary footbridge over White River (Source: VTrans)

While Rochester's community has shown its mettle, and bonds have formed between citizens that might never have grown, there is still much work to be done.

FEMA

Rochester, like much of Vermont, has had a mixed experience with the Federal Emergency Management Agency. FEMA is responsible for providing aid to communities and their residents under federally declared disasters. The Selectboard has worked with FEMA to take advantage of funding for the repair of municipal infrastructure such as roads and bridges. But where the municipality wished to make improvements that enhance flood resiliency, FEMA's strict regulations make this challenging. Rochester benefited from additional funding from other agencies that allowed some structures to be upgraded.

It is estimated that 30 of Rochester's roads were damaged to some extent, many with portions completely washed away. The total amount of funds spent repairing town property (including roads, bridges, culverts, ball fields, parks, cemetery, sewer system and tennis courts) was close to $3,000,000. When final reimbursements from FEMA and the State of Vermont are collected, Rochester's share will be just under $50,000.

For businesses and private citizens, working with FEMA is a more challenging and slower process. Businesses are not eligible for FEMA relief funding and instead can take advantage of low-interest loans through the Small Business Association. The burden of adding more debt to a business that may already

be carrying debt can make reopening after a disaster difficult. Homeowners are eligible for what is called Individual Assistance through FEMA, but the maximum amount of assistance per home is $30,200. If a resident's home is destroyed, the cost to replace it is likely to be substantially more than $30,200.

Under certain circumstances, some properties may be eligible for a FEMA buyout through the State of Vermont. The purpose of this program is to completely remove structures that have been and are likely to be severely damaged by flooding again. These homes, if purchased through this program, are demolished and the land becomes town property and is unable to be developed again. The buyout amount is generally 75% of the value of the building, but the building must have substantial damage, which is defined as more than 50% of the value of the home. There are two homes in Rochester that were bought out through this program.

> *"For all of its destruction, Tropical Storm Irene also demonstrated why we love this community, and why we have chosen to live, work and raise our families here. Everyone should be as proud as we are of Rochester's response to one of the most significant events in the history of the Town."* - Rochester Selectboard, 2011 Town Report

Lessons Learned

The municipal response to Irene made it clear that the systems put in place by Town Government to handle such a severe hazard event were generally successful. The Selectboard was effective in keeping the lines of communication with members of the community open through regular scheduled meetings. The distribution of information is probably the most important element of disaster response. Volunteers maintained the Rochester web site and utilized social media to communicate essential information to the public.

Additionally, municipal staff and volunteers including the road crew, public works crew and the volunteer fire department were invaluable to the Town's response. Collectively they worked well with the community to bring essential services back online and to ensure that the health and safety of all were maintained.

The devastation caused by Irene within the Flood Hazard Area (FHA) and outside the FHA in fluvial erosion hazard areas has made it clear that development in these areas carries high risk. When surveyed by the Planning Commission in 2012, 70% of the responses indicated that current regulations should be more stringent to enhance flood safety. Nearly 60% of the respondents felt that development within the floodplain should be prohibited altogether.

The most essential lesson learned was how strong Rochester's community is. The impact of Irene was felt to the core of this community, and as a result, it will influence the future and the vision of the community in many ways, which is why Irene will be a recurring theme throughout this plan. The resourcefulness and resilience of Rochester's people were extraordinary in the face of incredible dislocation. It is felt by many that the bonds created by Irene will last forever and will continue to make Rochester a better place.

Goal

1. To learn from our experience and use that understanding to make our community more resilient.

IV. Demographics

To get a real-time snapshot of the town it is important to have the most up-to-date data available. In the case of this Town Plan, we have used the most up-to-date data available from the US Census and American Community Survey, or more recent state-level data whenever possible.

A. Population

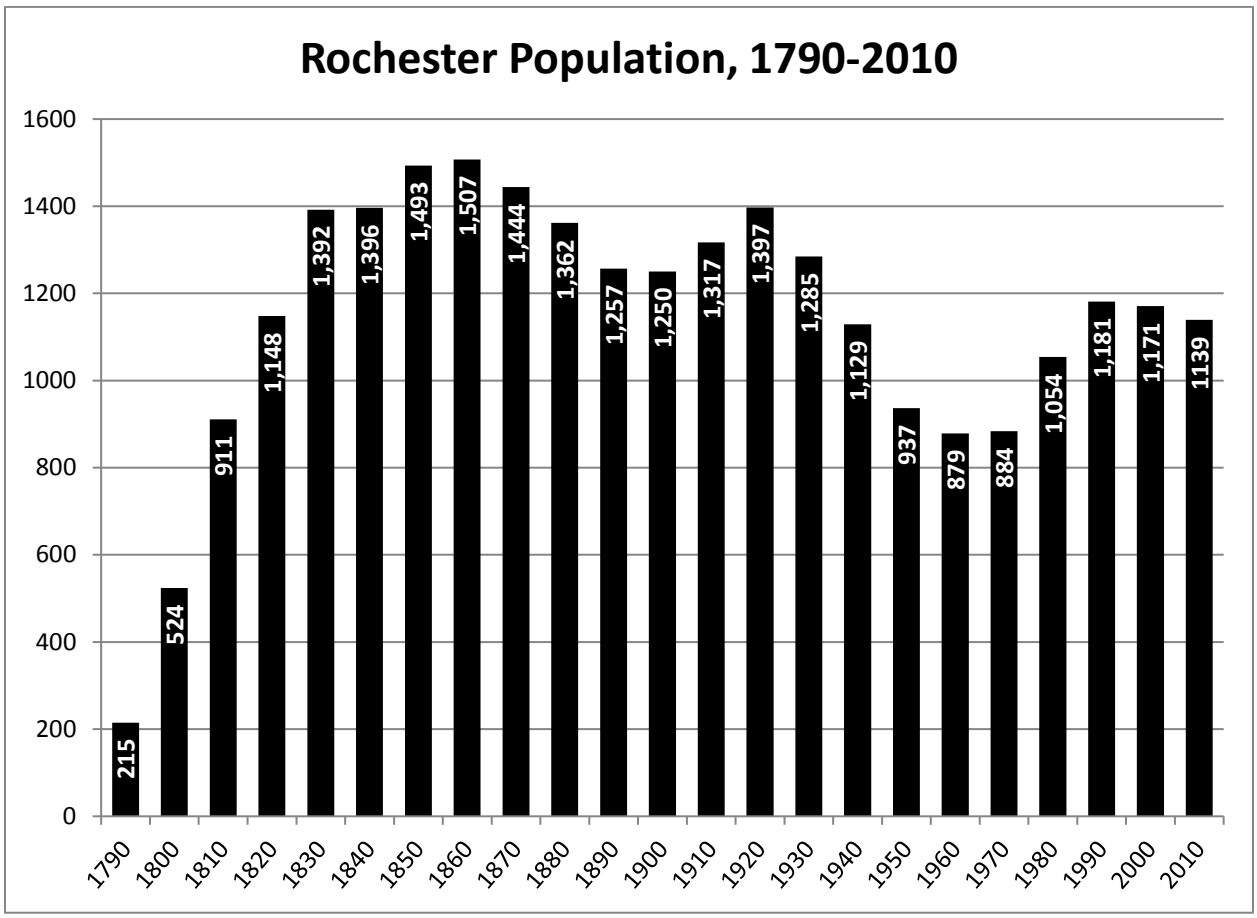

Figure 6 - Rochester Population, 1790-2010 (Source: US Census)

Population, when considered in terms of past, present, and future, represents an important factor in the overall development of our Town. Rapid and unanticipated population increases can compromise rural character, create a demand for new and expanded municipal services, and strain the financial ability of a town to provide public services economically.

When local populations are small, as in Rochester, land use and economic factors affecting migration rates are far more influential on short-term population changes than the more stable birth and death rates. For example, a single industry, subdivision or trailer park added to or subtracted from our community will more radically change Rochester's short-term population than the effect of our natural birth or death rate. Such an event, however, cannot be forecast in the standard demographic analysis, which is why population projections can only serve as a planning guide. During the twenty-year period from 1970-

1990, Vermont saw population increases in most communities. Because of this trend, projections indicated a continued rise in population growth. However, between 1990 and 2010, real changes in population have not matched projected increases, with many towns (including Rochester) losing population.

Population Change, Rochester and Surrounding Area				
	1970-1980	**1980-1990**	**1990-2000**	**2000-2010**
Bethel	1715	1866	1968	2030
	27.32%	*8.80%*	*5.40%*	*3.15%*
Granville	288	309	303	298
	12.90%	*7.20%*	*-1.90%*	*-1.65%*
Hancock	334	340	382	323
	18%	*1.80%*	*12.30%*	*-15.40%*
Pittsfield	396	389	427	546
	59%	*-1.70%*	*9.70%*	*27.80%*
Rochester	1054	1181	1171	1139
	19.20%	*12%*	*-0.80%*	*-2.73%*
Stockbridge	508	618	674	736
	30.00%	*21.00%*	*9.00%*	*9.19%*

Figure 7 - Population Change, Rochester and Surrounding Area (Source: US Census)

According to the US Census, Rochester's year 2010 population numbered 1139 compared to a population of 1171 in 2000, resulting in a decrease in population of -2.73%. During the same ten-year period, only Rochester's neighbors to the North (Hancock and Granville) also lost population, while communities to the South and East gained. Windsor County overall reflected a slight loss of population (-1.3%).

Rochester's population change over time is reflective of many communities in Vermont. During the mid to late 1800's many Vermont towns reached their peak population. A mass exodus as citizens moved south caused a steep drop that finally stopped during the 1970's. Throughout the 1980's and up to 2000, most communities experienced a steady influx of new residents. Between 2000 and 2010, however, the trend reversed. As is the case in most of Vermont, the primary factor influencing population change is due to people moving in or out of Rochester rather than an unusually high rate of births or deaths.

B. Age of Population

In general, the age of Rochester's population is similar to that of Vermont, with much of our population over the age of 35. The number of residents in the 20-24 age group in Rochester remains virtually the same (4%) between 2000 and 2010. In general, about 35%-45% of residents who are high school age leave Rochester and do not return while they are 20-24 years of age, most likely due to college and careers in other locations. It does appear that residents 25-34 either return to or move to Rochester and many stay in Rochester (noted by the fact that the number of 25-34-year old's in 2000 remains virtually the same as 35-44-year old's in 2010).

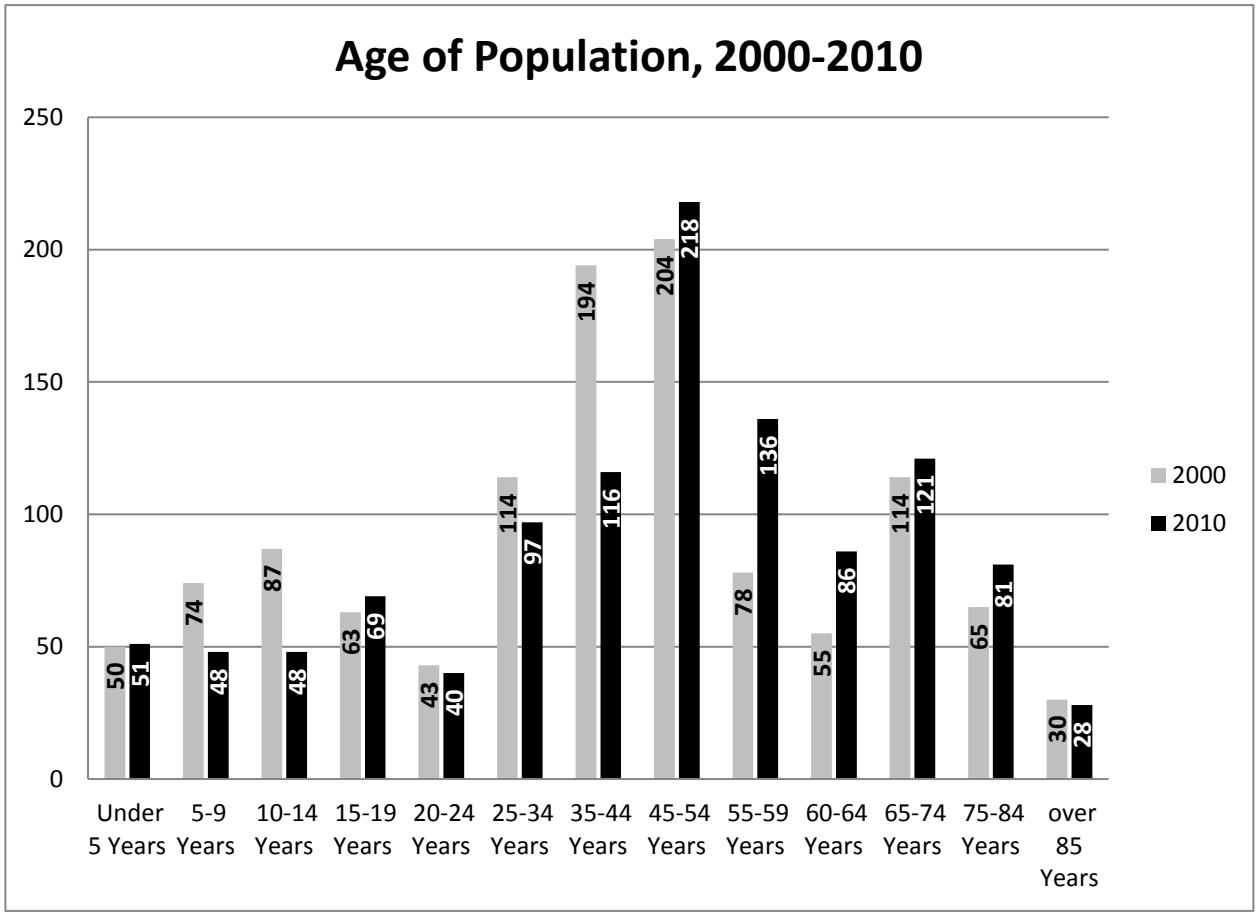

Figure 8 - Age of Population, 2000-2010 (Source: US Census)

The loss of young adults (generally between the ages of 25-35) has been a concern throughout Vermont during the past decade. Often referred to as a "brain drain" the out-migration of young adults raises concerns on both economic and social levels. Without a talented and well-educated pool of young workers, there are worries that the state will find it increasingly difficult to attract and retain well-paid jobs, which in turn can have serious repercussions for the state's capacity to raise tax revenues and pay for essential services. Young adults who leave their rural communities often do so because communities lack the resources commonly sought by people of their age group, such as reliable high-speed internet access, clear cell phone reception and opportunities for social interaction with others of their age group.

According to the Department of Economic Development's (DED) 2007 Report "Growing Vermont's Next Generation Workforce", Vermont ranks at the bottom nationally for the percentage of its citizens between the ages of 25 and 29, and at the top in the percentage aged 50-54. While it is common, and perhaps desirable, for young adults to venture beyond their home state after college, the biggest concern is that many are not returning. During interviews for the DED report in 2007, young adults explained that their primary reason for leaving Vermont was to find better paying jobs. Likewise, the biggest hurdle for young adults wanting to return to Vermont was the availability of well-paying jobs and affordable housing.

However, it should be noted that those young adults who choose to return to, or relocate to, Vermont have indicated that their primary motivation for moving to Vermont is the lifestyle associated with the working

landscape. Outdoor recreation, agriculture and the importance of community often encourage these citizens to return, but in Rochester this does not appear to be the case.

In another trend that mirrors statewide trends, Rochester also has an aging population. In 2010, 27% of the population was over 65 years of age, which is a higher percentage than Windsor County (17.8%) and Vermont (14.6%). Vermont also has the lowest birth rate in the nation (10.4 births per 1,000 of population, compared with 14.2 for the U.S) which, when coupled with immigration of residents over 65, results in an aging population that will need services that are not readily available in a town like Rochester. The need for elder housing will increase as well as health care and associated services such as accessibility and transportation.

V. Housing

A. Introduction

Like many towns in the State, Rochester has seen a sharp increase in the cost of single family residences, driven primarily by the demands of the second home market. At the same time, much of the existing housing, which was built at a time when larger families required larger structures, has become increasingly difficult to properly heat and maintain. Both forces have called attention to the need for more affordable housing.

For many years, it has been the Town's policy to encourage partition of existing structures into more than one living unit to preserve our rich heritage of 19th century architecture and to provide additional affordable housing units. Although the Town adopted density limitations in all zones, multi-family dwellings are encouraged in all zones of the Town. The greatest density is encouraged in the Village Area, where all necessary services are located within walking distance.

One of the most successful conversions of an historic structure in the Village was the renovation of the former Rochester Inn (originally the Pierce residence) into congregate housing for the elderly. With its location right next to the Rochester Park, it enhances the appearance of our "downtown" area and provides its residents with easy accessibility to services and visitors.

Having a school located in Rochester makes it an appealing location for families with children. Rochester's schools have additional capacity, and would benefit from a larger student body. Other Town services can also handle greater capacity.

A major function of local housing planning is to meet two community objectives - first, safe and affordable housing for its present and future population and second, suitable density and distribution of housing throughout the community. Growth in housing affects the Town's capacity to provide facilities and services to our Town and the character of the area. Housing built without adequate planning for schools, roads, and other public services can overburden the ability of the taxpayers to pay for these services and negatively affect the rural character of the Town.

B. Number of Housing Units

The U.S. Census defines a "housing unit" to include: conventional houses, apartments, mobile homes, condominiums, and rooms for occupancy. According to Vermont Housing Data, Rochester has a total of 832 housing units. Like most of the towns throughout Vermont, the housing units in Rochester are predominantly single-family homes, with multi-family homes being a distant second.

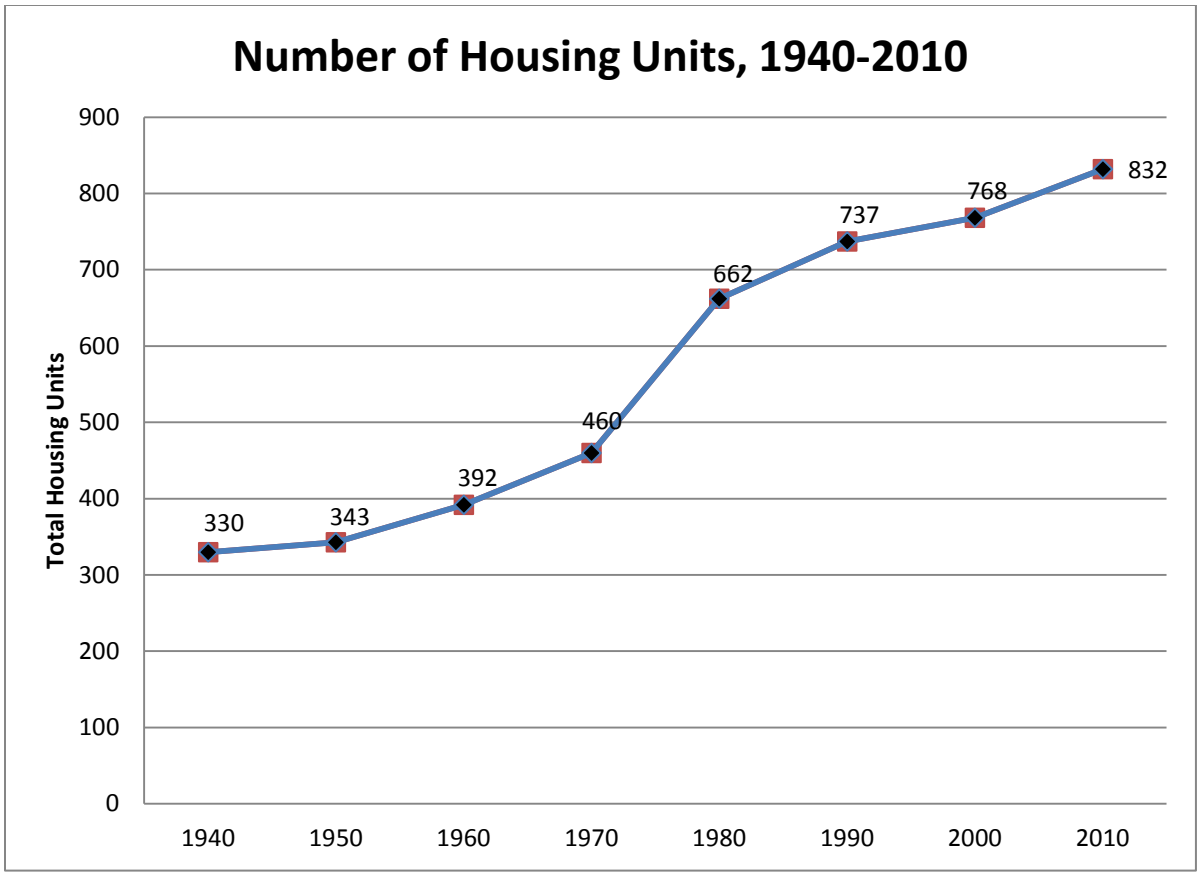

Figure 9- Number of Housing Units, 1940-2010 (Source: US Census)

As noted in Figure 5 (following page), 48% of the housing stock in Rochester is owner occupied. An additional 28% of the housing is dedicated to seasonal, recreational or occasional use, making Rochester unique when compared to nearby Bethel (11%) or 21% in Windsor County and 15.6% in Vermont. Yet, when compared to its Quintown neighbors, such as Stockbridge (35%) and Hancock (23%) or Granville (34%), Rochester's percentage of vacation homes is not out of the ordinary. The very nature of the Quintown area, with its distinct natural beauty and proximity to major ski areas like Killington and Sugarbush, makes it a desirable place to have a vacation home.

When a town has many homes that are not occupied year-round, it can have unforeseen impacts on town services. For example, communities which have a volunteer fire department depend on full-time residents to staff its fire department and a lack of full-time residents can make acquiring staff difficult because the pool of candidates is reduced. This is also true for many positions in our largely volunteer town government.

The low percentage of homes that are currently unoccupied (6% - for sale or for rent) indicates that in 2010 Rochester was experiencing a shortage of available housing stock. Anything below 5% is functionally considered a zero.

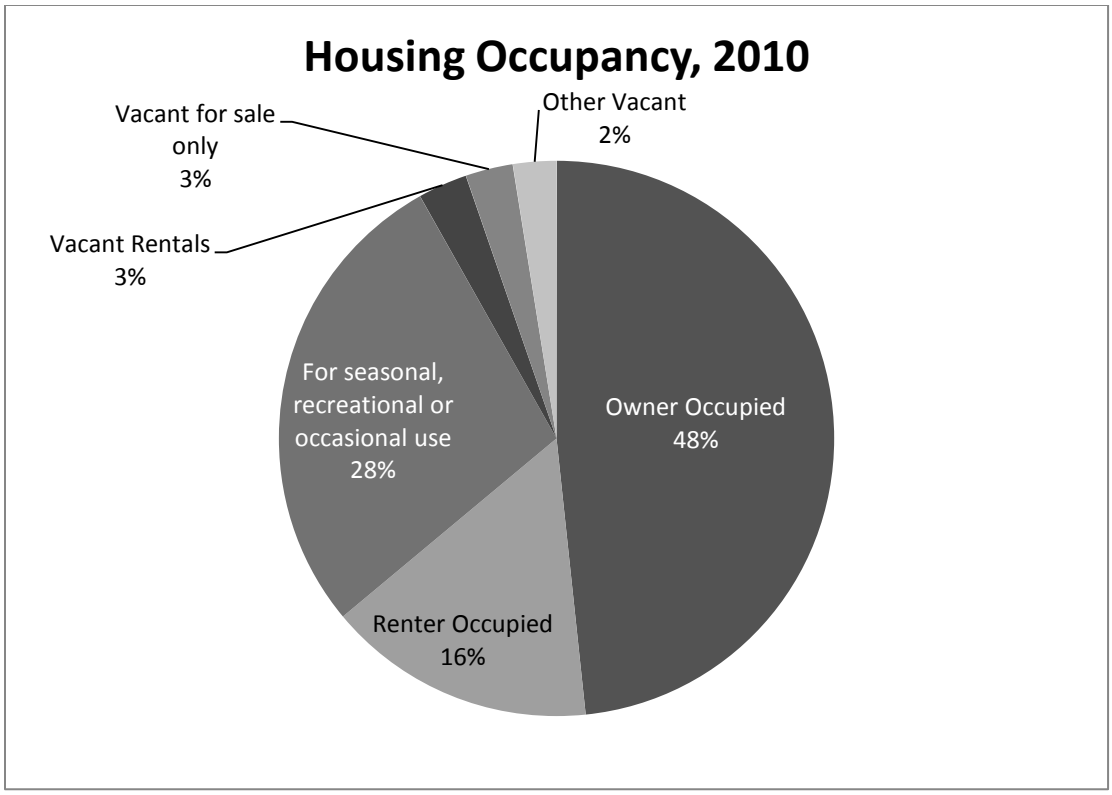

Figure 10- Housing Occupancy, 2010 (Source: US Census)

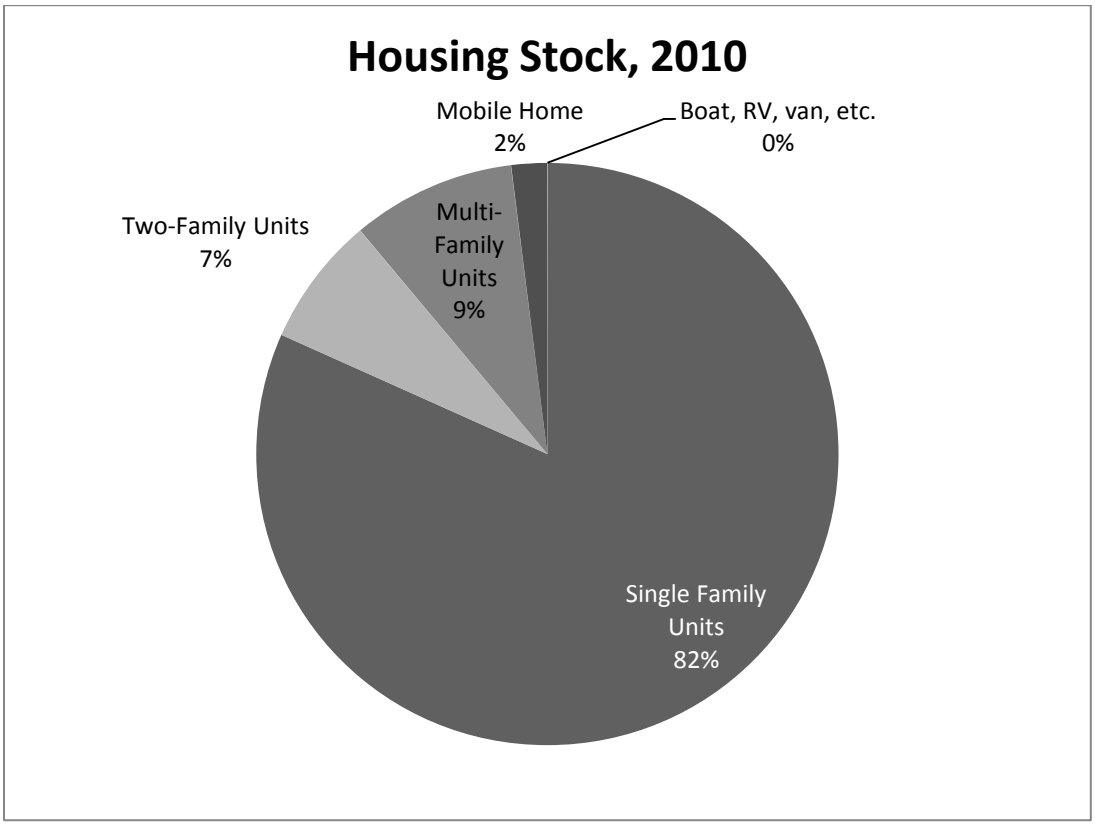

Figure 11 - Housing Stock, 2010 (Source: US Census)

A. Rental Housing

Only 19% of Rochester's housing stock in 2010 was rental units. The tight housing market and lack of unoccupied apartments continue to drive up rental costs. In 2000 the US Agency of Housing and Urban Development (HUD) calculated the fair market rent for a modest two-bedroom apartment in Rochester at $498 per month. In 2012, that cost had risen nearly 76% to $876. For a renter in Rochester to be able to afford rent at this rate, he/she would have to make at least $41,200 annually. Given that 53% of Rochester's households made less than $30,000[1] in 2010, it is likely that it would be difficult to find affordable rental housing in Rochester.

B. Housing Affordability

Price of Primary Residences* in Rochester and Surrounding Area, 2010 and 2011

	2000 # Sold	2000 Average	2000 Median	2011 # Sold	2011 Average	2011 Median
Bethel	17	$118,724	$84,000	18	$141,861	$128,000
Granville	8	$115,249	$115,000	3	$111,147	$125,000
Hancock	1	$19,500	$19,500	3	$74,414	$66,000
Pittsfield	5	$105,600	$108,000	3	$173,667	$175,000
Randolph	60	$122,226	$111,000	26	$192,894	$178,000
Rochester	**10**	**$89,650**	**$74,000**	**6**	**$153,833**	**$155,000**
Stockbridge	6	$77,583	$76,000	4	$201,250	$186,250

12 - Value of Primary Residences Sold in Rochester & Surrounding Area, 2000 & 2011 (Source: VT Dept. of Taxes)

Affordable housing is defined as that which a household making the county's median income could afford if no more than 30% of its income were spent on housing costs. For homeowners, housing costs include mortgage payments, taxes, etc. For renters, housing costs include rent and utilities.

In Rochester, the average price of primary residences sold in 2011 was $153,833 which is less than the Windsor County average of $219,009 and the statewide average of $223,496. This figure can fluctuate widely from year to year based on the number and types of homes sold. In general, most homeowners in Rochester are paying about 18% of their income for homeowner costs, but according to information collected via the American Community Survey (2005-2009), 27.9% of Rochester households were paying more than 30% of their income for the same expenses.

When compared to surrounding communities, the apparent percentage of increase in home sale values between 2000 & 2011 is substantial; primary residences were roughly seventy-percent (70%) more

[1] Source: VT Department of Labor, Vermont Personal Income Tax Return data for Rochester in 2010.

expensive in 2011 than in 2000. However, the increase of home values in other communities such as Stockbridge (159%) was more substantial.

The median price of a home in Rochester in 2011 was only $155,000. In its annual publication "Between a Rock and A Hard Place: Housing and Wages in Vermont", the Vermont Housing Council notes that the median purchase price of a primary home in Vermont in 2011 reached $195,000. A Vermont household would need an annual income of $58,000 as well as $16,000 in cash (for closing costs and a 5% down payment) to purchase a home at that price. The average value of annual home sales in Rochester peaked in 2007. Rochester and most neighboring towns have seen decreasing home sale values since that then. This is primarily due to the mortgage crisis of 2008. While housing prices have decreased moderately in the last decade, income and employment opportunities have dramatically decreased, making housing even less affordable.

Rochester, like many communities, has experienced a trend toward fewer home occupants. This trend is unlikely to be reversed and will result in an increased demand for housing. The elderly, single-member households and other special populations are oftentimes in need of special types of housing including that which is affordable and accessible. When surveyed by the Planning Commission in 2012, respondents were fairly split on whether Rochester should try to promote the development of affordable housing. Those who indicated that the town should support such efforts felt that the best way to do so was to work with a housing trust to encourage the development of low income housing.

Another barrier to affordable housing is the age of homes in Rochester. "Between a Rock and A Hard Place" points out that overall, "Vermont's housing stock is among the oldest in the United States. 63% of owned homes and 74% of rentals in Vermont were built in 1979 or earlier, before newer energy efficiency technology was available; housing codes were laxer, and the use of lead based paint was wide-spread. These factors make an important impact on the cost of operating housing, assuring the health and safety of all residents, and providing access to Vermonters with different abilities."

C. Elder Housing

Section B of Chapter IV discussed Rochester's trend toward an aging population. The Baby Boomers (people born between 1946 and 1964) are beginning to retire, and the oldest ones will be 84 in 2030. This shift in demographics will put added pressure on an already tight housing market. Increasing health care costs may leave seniors with even less money to spend on housing.

As the elderly (citizens aged 65 and older) become less comfortable with the tasks involved in managing their own home, they often turn to some sort of elder housing. If health is an issue and some form of constant care is required, seniors may need to enter a nursing home or a residential care facility. As is indicated in Figure 11, there are very few options in Rochester or the surrounding area for this type of care. Elderly Rochester residents in need of full-time care are forced to move away from their community. This is, of course, not just a local issue; there is a lack of elder housing throughout the State of Vermont.

Within Vermont there are several types of elder care facilities which are subject to State regulation, including nursing homes and residential care facilities. Nursing homes provide nursing care and related services for people who need medical, rehabilitation, or other special services. They are licensed by the

state and may be certified to participate in the Medicaid and/or Medicare programs. Some nursing homes may also meet specific standards for subacute care or dementia care. Residential care homes are state licensed group living arrangements designed to meet the needs of people who cannot live independently and but do not require the type of care provided in a nursing home. When needed, help is provided with daily activities such as eating, walking, toileting, bathing, and dressing. Residential care homes may provide nursing home level of care to residents under certain conditions. Daily rates at residential care homes are usually less than rates at nursing homes.

Residential and Nursing Care Facilities, 2012
Total beds by provider type, by town

	Nursing Care Level II	Residential Care Level III	Residential Care Level IV
Bethel	0	0	0
Granville	0	0	0
Hancock	0	6	0
Pittsfield	0	0	0
Randolph	30	17	0
Rochester	0	0	0
Stockbridge	0	0	0

Figure 13 - Residential and Nursing Care Facilities, 2012 (Source: VT DAIL)

The Vermont Department of Disabilities, Aging and Independent Living classifies residential care homes in two groups, depending upon the level of care they provide. Level III homes provide nursing overview, but not full-time nursing care. Level IV homes do not provide nursing overview or nursing care. Nursing homes, which have full time nursing care, are considered Level II. At present, there are no options for elderly care located in Rochester. The nearest options are in Randolph (Number of beds: 30 Level II, 18 Level III) and Hancock (Number of beds: 6 Level III). However, given the size of the populations in both Randolph and Hancock, it is likely that there are many people waiting for vacancies at these locations.

Locally, the Park House of Rochester offers a shared living residence, with no onsite medical care. Park House is equipped, primarily, to serve the needs of people over age 60. The facility, which is located on the park in the village center, has 17 rooms and offers independent family-style living. Residents have their own bedroom furnished with their own furniture and either a private or semi-private bathroom. Meals are served in the Park House's dining room and residents share common areas such as the living and dining rooms, front porch and grounds. Residents are encouraged to assist with the household and outdoor tasks as they are able. While an excellent resource for an active and independent elderly population, Park House does not fill the role of assisted living that is often needed as people age. As Rochester's population continues to age, the need for such housing, both assisted and unassisted, will only increase.

In the Vermont Housing Finance Agency's issue paper "Housing and the Needs of Vermont's Aging Population", it is acknowledged that more seniors today want to "age in place," which means choosing to remain at home or in a supportive living community without having to move each time their needs

increase. Having the right housing fosters the ability to stay active and engaged in community life, which is a great benefit not only to the individual, but to the community.

Several municipalities have benefited from planned retirement communities which provide for older persons. Such land usages are best located near existing village centers where basic services are available rather than in outlying areas. As of the date of completion of this plan, Gifford Medical Center is undergoing Act 250 permitting for a 165-bed senior living community on a 26-acre campus in Randolph Center. If completed as planned, the campus would have independent living apartments, assisted living facilities and end of life care, all in one place. This facility, while not in Rochester, would serve the entire Central Vermont area.

D. Housing and Land Use

To ensure that housing in Rochester does not become entirely unaffordable, it is important for the community to maintain diverse types of housing stock. A reasonable mix of single family (including mobile homes), multi-family and rental units is necessary to provide housing options for residents with varying income levels. When surveyed in 2012, 46% of residents indicated they felt there was sufficient diversity of housing in Rochester, while 21% did not (the remaining 32% were unsure). While this diversity is important, it is recognized that some types of housing are more appropriate in specific areas than others.

Survey responses made it clear that residents seek to maintain the land use pattern that Rochester has promoted for decades – denser development within the Village Center Area and more dispersed development outside of the Village Center Area. Residents indicated that apartments and housing for the elderly (independent or assisted) are more appropriate when located in the Village Center Area. This is good planning policy as many of the users of these types of housing (particularly independent elder housing) are less likely to drive and will benefit from being able to access community services and facilities by walking. Additionally, these dense residential developments benefit from being able to access town water and sewer. For the same reason, multi-family housing (more than two units in one building) should also be in the Village if possible. However, the scale and appearance of any such development needs to be appropriate for Rochester's Village Center Area. A large independent care facility that did not fit well with the village due to scale or form might be more appropriately located outside of the village along Route 100.

The primary and dominant use outside of Rochester's Village is single-family residential, and that pattern is expected to continue. Multi-family homes, if located outside of the Village Center Area should be located along state highways and not on less traveled rural roads. This is not only good planning, but it is supported by responses in the 2012 survey.

E. Goals, Policies and Recommendations

Goals

The following housing goals have been established to guide the Town's residential development:

1. To encourage suitable and affordable housing for all of Rochester's residents.

2. To encourage the conservation of existing structures, especially in the Village Area.

3. To provide for orderly growth in housing, considering neighboring uses and available services.

4. To encourage the creation of accessory dwelling units for providing additional housing for the community.

5. To protect existing and future housing from flood damage.

Policies

1. It is the policy of the Town to ensure that the timing and rate of new housing construction or rehabilitation does not exceed the community’s ability to provide adequate public facilities (e.g. schools and municipal services).

2. It is the policy of the Town to accommodate housing that is permanently affordable for a mix of households having moderate, low, and very low incomes.

3. It is the policy of the Town to keep housing affordable by planning for appropriately sized lots, accessory apartments, and clustered developments, consistent with the desire to maintain its rural quality.

4. It is the policy of the Town to work with businesses and non-profit housing corporations to help Rochester better meet the demands for affordable housing.

5. It is the policy of the Town to encourage the provision of housing for special needs populations, such as the elderly and physically handicapped.

6. It is the policy of the Town that the location of primary and vacation housing, related amenities and land uses should be planned with due regard to the physical limitations of the site and location of current or planned public and private services such as roads and commercial/service centers.

7. Housing in Rochester should be safe and sanitary.

VI. Current and Future Land Use

State statute requires that all municipal plans include a Land Use Plan. This Plan is intended to be a guide for municipal policies and regulations that relate to land use. Zoning and subdivision regulations (which Rochester has) must be consistent with the vision established by the municipal plan. Because of this, the community's vision for the future must be accurately and specifically represented in this chapter because that vision is intended to be implemented through regulations and policies. These policies do not apply to the state and federal lands within the border of Rochester.

A. Land Use Plan

Rochester, with its location in the heart of the Green Mountains, has many areas which do not lend themselves to land development. Much of this land is characterized by steep slopes and shallow soils revealing little potential for development. However, there are areas in Rochester, like the valley corridor and less rugged side hills, which can support some development. Any new growth located outside the immediate village and town water and sewer services will most probably utilize individual on-site systems of sewage disposal and individual wells for water. For this reason, the land's capability for safely disposing of sewage and, more generally, its ability to support all types of development have weighed heavily in determining the land use areas.

Another major consideration in the formulation of the land use scheme is Rochester's existing land use patterns and road network. With Town roads being so costly to construct and maintain, it is our policy to discourage development in un-served and remote areas of the community. The Plan encourages new growth to locate where public utilities and services can be economically provided. This is not to imply that a pattern of strip development is favored, only that it is cost effective to attempt to centralize growth into areas presently served or within easy access to services. Furthermore, by discouraging scattered growth, Rochester can help to maintain its agricultural and forest land resources, its rural character, and the viability of its village area as a beautiful community center. Consideration of these and other factors, including but not limited to topography, soils, access, present water and sewer systems, existing land use problems, business needs, and housing opportunities results in the land use pattern illustrated on the map entitled "Land Use".

To give effect to the goals and objectives of the people of Rochester as expressed in this Plan, the land area of the Town of Rochester has been divided into the following five land use areas:

Business Residential Area

This land use area comprises the village area as well as some of the adjacent fringe areas. Rochester Village has historically been a closely knit residential and small business community. By designating this vicinity as Village Business-Residential it is a goal of the Plan to reinforce this role and to encourage new residences and businesses to locate in or adjacent to the village. Such a pattern of future development will help support the viability of the town center, prevent scattered growth and assist in maintaining Rochester's present small-town character.

Density of development should be highest here, depending on the availability of water and sewer, off-street parking, open space, and compatibility with surrounding land uses. It is recommended that a minimum area requirement be established as a means of controlling the density and spacing of structures. One half acre per principal building seems appropriate based on existing lot sizes of the village area. The Business-Residential area should be the location for a broad mix of uses including civic, commercial (including primary retail), higher-density residential, light industrial and services uses. It is important that any new growth or intensification of existing uses not have a damaging effect on the very qualities that now make the village an attractive place to live or do business. Growth and density shall not exceed the town's ability to provide services, particularly septic.

Commercial – Agricultural Area

The purpose of this zone is to provide a location for future commercial development that would serve to complement rather than compete with existing business already well-established in the village area. The location near the intersection of Route 100 and 73 with its proximity to the existing service center makes this area most favorable for expansion of business interests, provided that these businesses do not negatively impact the health of the Village Center Area. Because of the perceived need for increased business areas this zone has been expanded to also include the valley floor north of the business-residential zone.

Proper site planning, screening and control of access and egress points will be necessary to protect public safety and preserve the beauty of the area. Much of the land within this area is within the Flood Hazard Overlay Area.

The types of commercial development that are appropriate for this area include services related to agriculture, small hotels or bed and breakfasts, non-retail studios and workshops, professional offices, light industrial, outdoor recreation, and wholesale or service establishments. Businesses in this area may have a retail component, but only if it is clearly secondary to the primary use of the building. For example, a veterinarian's office may sell pet food and pet products, but its primary use is to provide health services to animals. Both residential and agricultural uses are in keeping with the purpose of this land use area as the scale of business likely to be in the vicinity should not be incompatible with housing and agriculture.

To ensure that new growth taking place within this land use area meets certain quality standards, it is recommended that minimum area dimensional requirements including setbacks, be established to avoid any strip or cluttered appearance at the intersection of the Town's two main arteries and along the southern and northern entrances to the village. Because this area is served by major roadways (Route 100 and Route 73); the density in this area should be higher than other land use areas (except the village). The minimum lot size in this land use area should be one acre.

Agricultural – Residential Area

This zone covers the river valley in two separate areas. Agriculture and residential development are to be the major types of development in this area. The contrast between these open, undeveloped areas and the more built-up hamlet area is what helps maintain the character and identity of a small New England village.

New homes built within the Agricultural-Residential Area must be appropriately sited to fit in with the landscape. Parts of this area are located within the Flood Hazard Overlay Area and development within the Overlay should be treated accordingly. Incentives for clustered housing and shared drives are recommended. The stringing out of homes along the two state highways is not in Rochester's long-term interest. Primary uses preferred for this area would be residences and farms. Other uses that are appropriate in this area include non-retail studios or workshops and outdoor recreational facilities. Home occupations are encouraged in this area. Retail establishments are not appropriate in the Agricultural-Residential land use area. A minimum lot size of two acres is recommended.

Aquifer Recharge Area

To protect the quality of the public water supply serving Rochester Village, the 13 acres surrounding the Town well south of the village have been designated as the Aquifer Recharge Area. These are the lands whose surface and ground water serve to recharge the well that provides the village with its municipal water supply.

To preserve the drinking water source and prevent contamination from sub-surface septic systems, only agricultural and outdoor recreational uses are appropriate for this area if they do not require the construction of sub-surface sewage systems.

Residential – Conservation Area

Any land not covered by one of the other four land use areas listed above falls within this category. From a physical standpoint these lands exhibit the least potential for supporting high density development since most of the land is characterized by steep slopes, shallow and fragile soils, high elevations and remote locations. An estimated 13,104 +/- acres within this zone are publicly owned or part of the Green Mountain National Forest.

Without water or sewer facilities present in these outlying areas, soil suitability should play a major role in determining lot sizes and home placement. For purposes of this Plan, a minimum lot size of three acres per single family residence is recommended. It is also important that house sites are well planned to take into consideration such elements as grade, screening, access and energy conservation. Uses compatible with the purposes of this land use area include: agriculture, forestry, recreation and properly sited residential development. Development of lands above 2,500 feet in elevation should be given special attention since other uses are more suitable for these locations.

Flood Hazard Overlay Area

This area contains those lands which are considered subject to flood hazard as described and designated by the Federal Flood Insurance Administration on Rochester's Flood Hazard Boundary Map. This map was issued in 2006 and serves as the official map. For Rochester to continue participation in the National Flood Insurance Program, it has adopted and will continue to enforce a permanent flood plain zoning bylaw regulating development activities within the flood hazard areas. For more detail about Floodplain, see the Chapter XIV, Natural Resources.

The boundaries on the Flood Hazard Boundary Map represent the 100-year base flood or the flood having a one percent chance of being equaled or exceeded in any given year. It is the purpose of this land use area to:

1. Implement the goals, policies, and recommendations in this plan;
2. Avoid and minimize the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding related inundation and erosion;
3. Ensure that the selection, design, creation, and use of development in hazard areas is safe and accomplished in a manner that is consistent with public wellbeing, does not impair stream equilibrium, flood plain services, or the stream corridor;
4. Manage all flood hazard areas designated pursuant to 10 V.S.A. Chapter 32 § 753, the municipal hazard mitigation plan; and make the Town of Rochester, its citizens, and businesses eligible for federal flood insurance, federal disaster recovery funds, and hazard mitigation funds as may be available.

As of the date this Plan was adopted, Rochester's Flood Hazard Regulations have been designed to meet the minimum standards (for more information, see Chapter XIV, Natural Resources) set by the Federal Emergency Management Agency (FEMA) and the National Flood Insurance Program (NFIP). New development within the floodway is prohibited, but within the 100-year flood plain, uses allowed require a conditional use permit, uses include single and multi-family residences, utilities, public buildings, quarries and home industries to name a few.

When surveyed in 2012 nearly 60% of responders felt that the Planning Commission should revise the Rochester Zoning Bylaw to prohibit all new development in the floodplain. The severe damages and complete loss of homes caused by Tropical Storm Irene in 2011 highlighted the need for Rochester to reevaluate the requirements of the Flood Hazard Area, both in terms of uses allowed and in terms of the area designated as Flood Hazard Area. Much of the flood damage from Irene occurred in locations outside the mapped flood hazard area. Because FEMA mapped floodplains are not as accurate as the community would like, alternative ways of interpreting the flood hazard area, including improved maps or expanded stream buffers may need to be considered in the future.

The Planning Commission has analyzed existing map data and has determined that the area designated as 100-year floodplain touches a limited number of parcels in Rochester. To protect the citizens of Rochester from further damages from a severe flooding event, and to implement the vision of survey responders, the planning commission is proposing the following:

- Prohibit all new development in the 100-year floodplain.
- The prohibition on new development would not apply to small out-buildings or similar structures provided they are properly flood-proofed and meet the thresholds required by the National Flood Insurance Program for flood hazard regulation.
- The prohibition would not apply to renovations to existing structures unless the proposed renovations expanded the footprint of the existing building by more than 10% or crossed substantial improvement thresholds required by the National Flood Insurance Program for flood hazard regulation.

Appropriate uses for this area would be agriculture, forestry and recreation.

B. Specific Land Use Policies

Historic Sites

Historic buildings and sites have an irreplaceable value providing a link between the Town's past and present. It is recommended that as Rochester develops, these community assets be preserved and restored wherever possible.

Preservation of Agricultural Lands

Although the number of active farms has steadily declined in the past years, agriculture and forestry continue to exert a strong influence on Rochester's economy and the day-to-day life styles of many of its residents.

With natural resources becoming increasingly scarce and the cost of transporting food products into the valley rising sharply, it would seem prudent for us to work toward a higher degree of self-sufficiency through protection and preservation of both existing farms and potentially suitable agricultural lands. A means to accomplish this is through the State's Land Use Assessment Program. Started in 1980, it enables owners of bona fide farm and forest land parcels to apply to the State of Vermont for land assessment based on its current use for farming and forestry rather than its maximum value if subdivided and developed. This program eases the tax burden placed on farm and forest land owners, and hopefully, helps keep land from being subdivided and sold.

If development must take place within an agricultural area, the Planning Commission shall encourage the developer to utilize cluster planning principles to minimize any adverse impacts on the farmed portion of the site or adjacent lands.

In addition, the Town should consider adopting regulations which allow a developer increased density for siting structures along the edge of tillable and high forested areas.

Development Above 2,500 Feet

Land in Vermont above 2,500 feet in elevation is generally recognized as being part of a more fragile environment and natural ecosystem than land below this elevation. Land at this elevation is often characterized by steep slopes, shallow to bedrock soils and subtle changes in plant and animal species that have adapted to the more severe physical conditions that exist at this elevation. It is a fact that sudden and unchecked disturbances to the land surface in these areas can have a long-term damaging effect on the ecology of the mountain environment. Susceptibility to erosion is high at these altitudes and recovery from the same is a slow process. Any activity proposed for these areas should respect these important physical qualities and not upset the delicate balance of nature.

There are several mountain peaks within Rochester that exceed 2,500 feet in elevation. Some of these are within the Green Mountain National Forest while others, like Braintree Mountain, are privately owned.

As a matter of policy, it is suggested that these lands continue to support conservation purposes. While residential dwellings and camps could be located here if properly sited, it is not the purpose of this Plan to encourage such activity.

Cooperation with the U. S. Forest Service, GMNF

As owners of roughly 34% of the total land area in Rochester, the U.S. Forest Service (USFS), Green Mountain National Forest (GMNF) has a major influence on Town affairs. Logging activity on the Forest Service lands has a direct impact on the local economy. Recreation is another benefit of having the GMNF. Hiking, skiing, snowmobiling and hunting are only a few of the many activities enjoyed by both residents and non-residents alike.

Because of the need for close coordination with the USFS, GMNF, it shall be the Town's objective to maintain an open line of communication always and to promote cooperative planning and decision-making.

Planned Unit Development

Making Planned Unit Development (PUD) a part of this Plan is intended to offer land developers an alternative to conventional land subdivision where every house is placed on a lot which must meet minimum area, frontage, and setback requirements.

PUD is a development style which allows flexibility in site plan design in which a modification of the zoning regulations is permitted by the Planning Commission. Residences may need to be clustered together within a PUD and valuable open space preserved, but in no case can the overall density of the project exceed the number of units that would be permissible if conventionally subdivided.

The advantages of PUD are that it provides for a more economic arrangement of streets and utilities, helps preserve the natural and scenic qualities of open land, and provides for the development of those lands which are most able to support building. A PUD may also offer a variety of housing types, varying densities, and be limited to only certain zoning districts.

Section 248a –Telecommunications Facilities

Telecommunications facilities are subject to review and approval by the Vermont Public Service Board (PSB) under 30 VSA §248a. Under these laws, prior to the construction of a generation or telecommunications facility (that is part of a network), the Board must issue a Certificate of Public Good. A Section 248a review addresses environmental, economic, and social impacts associated with a project, like Act 250. In making its determination, the Board must give due consideration or substantial deference to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, it is appropriate that this Plan address these land uses and provide guidance to town officials, regulators, and utilities.

For all telecommunications facilities, the following policies shall apply:

1. **Preferred Locations**: New telecommunications facilities shall be sited in locations that reinforce the town's traditional patterns of growth, of compact downtown and village centers surrounded by a rural countryside, including farm and forest land.

2. **Prohibited Locations**: Because of their distinctive natural, historic or scenic value, energy facility development shall be excluded from the following areas:
   - Floodways shown on FEMA Flood Insurance Rate Maps (except as required for hydro facilities)
   - Fluvial erosion hazard areas shown on Fluvial Erosion Hazard Area maps (except as required for hydro facilities)
   - Wetlands as indicated on Vermont State Wetlands Inventory maps or identified through site analysis.
   - Rare, threatened or endangered species habitat or communities.

3. **Significant Areas**: All new telecommunications facilities shall be sited and designed to avoid or, if no other reasonable alternative exists, to otherwise minimize and mitigate adverse impacts to the following:

   - Historic districts, landmarks, sites and structures listed, or eligible for listing, on state or national registers.
   - Public parks and recreation areas, including state and municipal parks, forests and trail networks.
   - State or federally designated scenic byways, and municipally designated scenic roads and viewsheds.
   - Special flood hazard areas identified by National Flood Insurance Program maps (except as required for hydro facilities)
   - Public and private drinking water supplies, including mapped source protection areas.
   - Primary agricultural soils mapped by the U.S. Natural Resources Conservation Service.
   - Necessary wildlife habitat identified by the state or through analysis, including core habitat areas, migration and travel corridors.

4. Zoning Compliance: New telecommunications facilities shall be sited in accordance with municipal zoning regulations.

5. **Natural Resource Protection**: New telecommunications facilities must be sited to avoid the fragmentation of, and undue adverse impacts to the town's working landscape, including large tracts of undeveloped forestland and core forest habitat areas, open farm land, and primary agricultural soils mapped by the US Natural Resource Conservation Service.

6. **Protection of Wildlife**: Designers must gather information about natural and wildlife habitats that exist in the project area and take measures to avoid any undue adverse impact on the resource. Consideration shall be given to the effects of the project on: natural communities, wildlife residing in the area and their migratory routes; the impacts of human activities at or near habitat areas; and any loss of vegetative cover or food sources for critical habitats.

7. **Site Selection**: Site selection should not be limited to telecommunications facilities alone; other elements of the facility need to be considered as well. These include access roads, site clearing, onsite power lines, substations, lighting, and off-site power lines. Development of these elements shall be done in such a way as to minimize any negative impacts. Unnecessary site clearing, and highly visible roadways can have greater visual impacts than the energy generation facility itself.

> In planning for facilities, designers should take steps to mitigate their impact on natural, scenic and historic resources and improve the harmony with their surroundings.

When surveyed in 2012, residents were very supportive of increasing cell coverage throughout the community depending on the location of the proposed telecommunications towers. Residents indicated that Deer Mountain, Alexander Hill and Mount Reeder would be the most acceptable locations for a telecommunications tower, while Mount Cushman, Rochester Mountain and Austin Hill would be the least. Developers should locate telecommunications towers accordingly.

VII. Education

A. Educational Facilities

Rochester has its own Elementary and High School, housed in adjacent buildings. Grades K - 5 are taught in the elementary school by four classroom teachers. The school also has a preschool which includes an early essential education program. A combination gym and cafeteria with a commercial sized kitchen allows for a hot lunch program and a breakfast program to be offered to the entire student body.

One area of the high school building houses the middle school where students in grades 6 - 8 have their own locker room, separate from the 9th - 12th grades. Also in the high school we have an auditorium that is partially maintained and improved by the local community theater group, which uses it regularly for their performances. The 300+ capacity facility also serves as a Town meeting hall.

Behind the high school is a Little League baseball field and skating rink and the nearby Town recreation field contains softball and baseball fields, tennis courts and soccer fields.

In 2002 the elementary building was expanded and improved.

The neighboring towns of Granville, Hancock, Stockbridge and Pittsfield send some of their students to Rochester. Some high school students are transported to Randolph to attend the area vocational school.

B. Adult Education

Because Rochester is a small rural community, adult residents seek their educational opportunities elsewhere. Vermont Technical College, located in Randolph, is the nearest institution for higher education, followed by Middlebury College in Middlebury. There are many other colleges and higher education institutions throughout Vermont and in neighboring states. Another opportunity is Bethel University in Bethel, Vermont that is a pop-up community university where anyone can take any class for free on a variety of subjects.

C. Student Enrollment

Enrollments of Rochester students in the Rochester School System are reported annually to the Vermont Department of Education. Based upon annual student resident counts from the Department, average daily membership (ADM) at the school for grades (K-12) over the past decade has been as follows:

School Year	Enrollment
2012-2013	150
2011-2012	151
2010-2011	176
2009-2010	210
2008-2009	197
2007-2008	209
2006-2007	220
2005-2006	231
2004-2005	246
2003-2004	250

Figure 14: Average Daily Membership (Source: VT Dept. of Education)

The Rochester School has been experiencing a steady decline in the student population for the past decade. In the school year spanning 2012-2013, 150 students attended the Rochester School. When compared to the ADM between 2003-2004, there has been a 40% decrease in the number of students.

Declining enrollments are being experienced as a state-wide trend, combined with the challenging realities of an aging building, an increasing diversity in the needs and interests of students and their families, and higher expectations for public education, are all contributing to larger conversations about how Rochester can best educate its children while managing the costs associated with education.

Student Information			
	2009-10	2010-11	2011-12
Attendance Rate	92.92%	93.70%	92.90%
9-12 Dropout Rate	15.79%	10.00%	15.79%
Graduation Rate	84.21%	90.00%	93.33%
Student Teacher Ratio	8.56	9.2	8.56

Figure 15: Student Information 2009-2012 (Source: VT Dept. of Education)

Several of Rochester's neighbors (Hancock & Granville) have chosen to close their small elementary schools due to declining enrollment and the increasing costs of education. The closing of a local school can be a difficult decision for a community as the local school often acts as a community center. Closing a public school does not necessarily save the town and its residents money. Tuitioning and bussing students may be more expensive. Over the past decade, the community has investigated the possible impacts of a decision to close the Rochester School with no final plan to do so forthcoming. It is recognized that any decision to close the school should be preceded by an extensive process of public discussion and outreach, and should only be considered if the school is no longer sustainable.

D. Childcare

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

Childcare Providers by Town (2013)		
	Registered	Licensed
Bethel	4	2
Braintree	2	0
Randolph	6	6
Rochester	0	2
Stockbridge	2	2

Figure 16: Childcare providers by type, by town 2013 (Source: VT Bright Futures)

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

There are currently only two licensed childcare services in Rochester (WNWSU Early Ed Program-Rochester & Ex.C.E.L. Rochester). Most residents currently arrange for care with relatives, or take their children to childcare facilities beyond the borders of Rochester to neighboring towns like Randolph.

E. Goals, Policies and Recommendations

Goals

1. To encourage the creation of affordable childcare facilities that meet the established needs of residents in Rochester.
2. To provide a safe and secure learning environment where quality educational opportunities are provided to all students.
3. To enable the best opportunity to educate our students at the most equitable cost to the Town's taxpayers.

Policies

1. It is the policy of the Town to support efforts to keep the Rochester School open if it does not put an undue burden on taxpayers.
2. It is the policy of the Town to support the private development of additional facilities to meet the childcare needs of its residents.
3. It is the policy of the Town to support private sector efforts to seek funding to assist with the development of childcare infrastructure.
4. Ensure that no barriers to increasing childcare capacity are created by future changes in zoning regulations.

5. It is the policy of the Town that land development which is likely to result in large numbers of school children must be phased or planned to not place an undue financial burden on the capacity of the Town to provide educational services.

VIII. Economic Development

A. Income Statistics

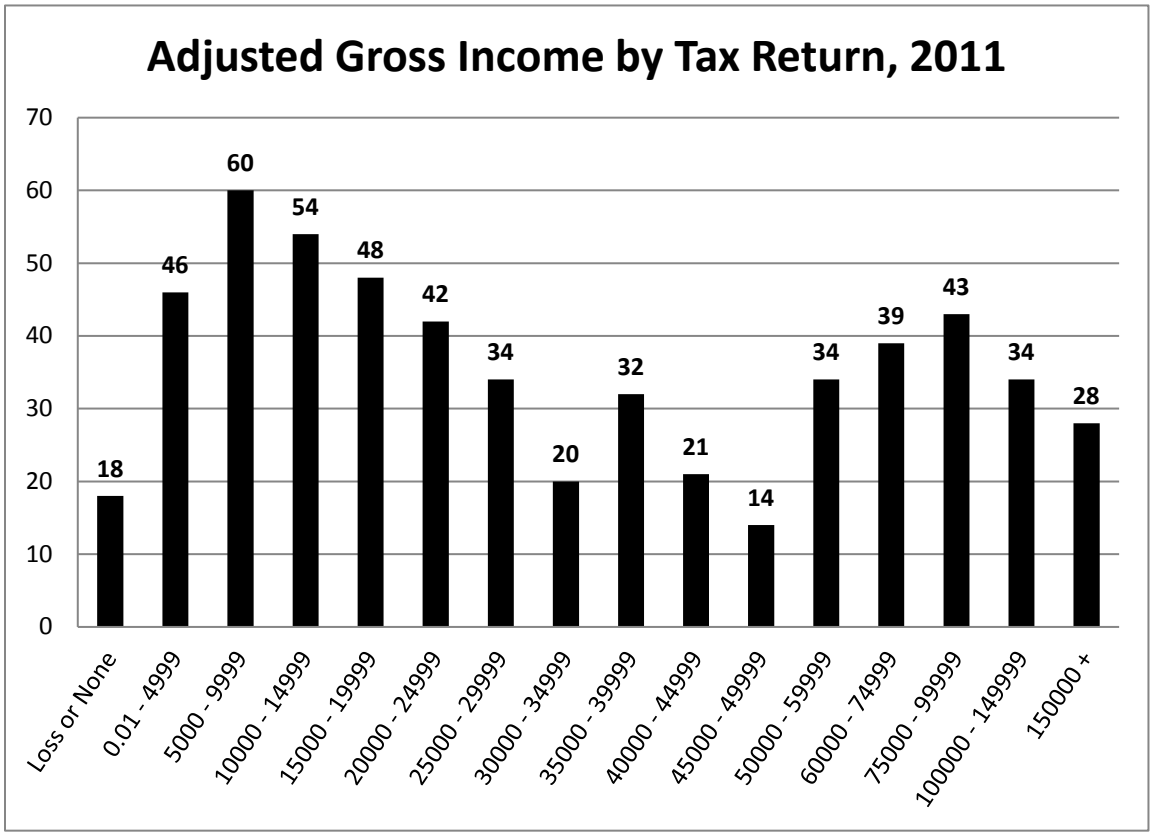

Figure 1: Adjusted Gross Income by Tax Return, 2011 (Source: VT Dept. of Taxes)

The Vermont Department of Taxes annually publishes Vermont Tax Statistics, which includes a summary of personal income tax returns filed with the State. In 2011, five hundred sixty-seven (567) income tax returns were filed in Rochester. Total adjusted gross personal income reported for all Rochester residents was $24,073,319 with a median income of $27,798. When income data for 6 of Rochester's neighboring communities is analyzed, Rochester is in the middle of the income scale with the third lowest median income.

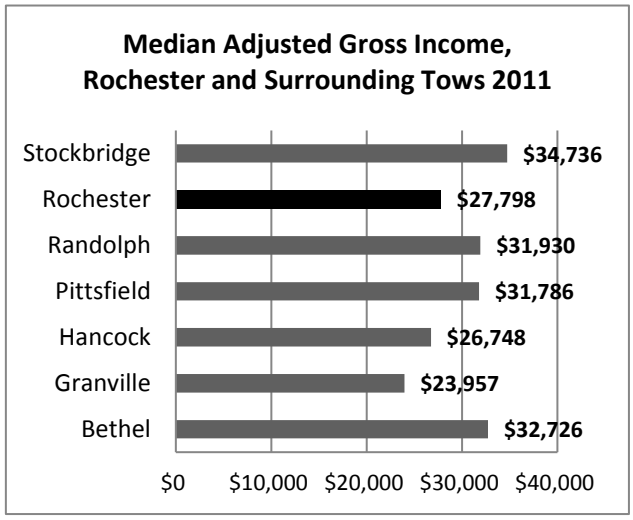

Figure 2: Median AGI, Rochester & Surrounding Towns, 2011 (Source: Vt Dept. of Taxes)

According to the Vermont Department of Taxes, Rochester's median adjusted gross income per

tax filer in 2000 was $23,913. In 2011, the median had risen to $27,798 an increase of 16%. The percentage of growth since 2000 of Rochester's median family income is less than the 23% increase that occurred during the same period statewide.

For 2011, 46% of the total family income generated in Rochester was by filers earning $30,000 or more and 54% were earning less than $30,000. The US Census Bureau sets the national poverty level on an annual basis. In 2011, the poverty level for a family of four was $22,350 in income. During that year, more than 226 (40%) of the 602 filers in Rochester reported an income below $20,000. Given the costs of housing (discussed in chapter V, Housing), the high percentage of residents who make $30,000 or less may struggle to afford adequate housing in Rochester.

B. Occupations in Rochester

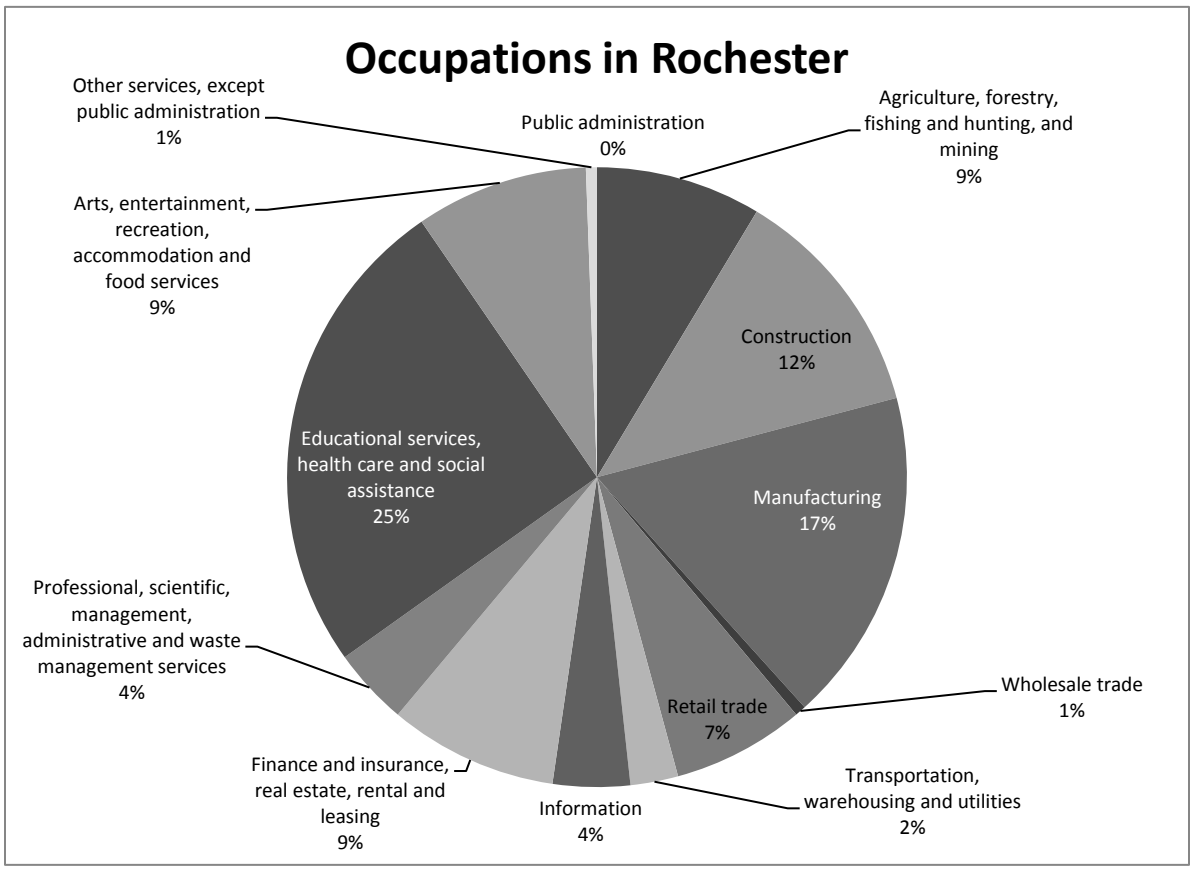

Figure 17: Occupations in Rochester (Source: 2012 US Census)

To some extent, Rochester serves as a hub for employment and services within the Quintown area (which includes the Route 100 Towns of Granville, Hancock, Rochester, Stockbridge and Pittsfield). Most residents utilize services in larger towns such as Randolph and the nearest city of Rutland.

Many residents commute to work, but according to the 2010 U.S. Census over 60% of those who do commute reported their driving time as 20 minutes or less, which indicates that residents are working either in Rochester or one of its immediate neighbors. The most likely locations for work within 20

minutes driving time are Hancock, Randolph and Bethel. It should be noted that 38% of Rochester's residents work in town.

C. Present Day Economy

Rochester has always been a community of independent means. In the early years, agriculture, forestry, mills and mining were the primary sources of industry in the Town. The small village, located on the valley floor of the White River, served as the commercial center of the Town with small businesses servicing the needs of the people. Thirteen one-room schools educated the children of large homestead families. Then in the 1950's, an elementary school was built in the village, increasing the daily traffic and activity there.

Rochester is a town of spectacular natural beauty. This attracts people from urban areas who purchase second homes and retirement property. They come to enjoy a slower pace of life and many make permanent homes here. The rate of new home construction is slow. Because of this, land values and taxes have continually risen. Many citizens commute to surrounding towns for employment (three of these towns being Randolph, Rutland and Middlebury).

Since the 1980's, a group of substantial "quiet industries" developed. These companies had a large customer base that reached beyond Vermont and the United States by way of telecommunications and national postal delivery services. They also offered employment opportunities to an increasing number of local workers.

Fortunately, the physical charm and character of the Town is very much intact. The village has a beautiful New England setting with its Park surrounded by large older homes. Within the village there are retail stores, banks, dining facilities, a gas station, a library, churches, private homes and apartment houses. Many construction businesses (carpentry, electrical, plumbing, excavation) serve the needs of Rochester citizens and the surrounding areas. There are several light manufacturing facilities located outside of the village. Agriculture, forestry and mining are lesser economic factors, although there are a growing number of small farms. One dairy farm remains along with some beef cattle operations. Timber management takes place in the National Forest and on private property. The rare Verde Antique marble is quarried in North Hollow.

The State of Vermont owns 629+ acres in the Town. The U.S. Forest Service has acquired property in the Town to the total of 12,394 (May 2006) acres, about 34% of Rochester. They have worked to focus Rochester as a recreational use area. Campgrounds, nature trails, snowmobile trails, the mountains and rivers bring people into the area year-round. Bed and breakfast lodging is available in the Hollows, village and on the valley floor. Sugarbush and Killington ski areas are approximately thirty miles north and south of Rochester respectively.

Presently, Rochester has more self-employment and small businesses per capita than most communities its size. The Town has attracted many new high-tech businesses. In the past several years, there has been a small boom in service establishments, featuring a bakery, art gallery, coffee house and restaurant.

In 2005, Rochester's village was granted "village center designation" by the Vermont Downtown Board. This allows businesses within the village to take advantage of State income tax credits for such revitalization and improvement efforts as the substantial rehabilitation of historic structures, code improvements and handicapped accessibility upgrades.

D. Future Economic Development

Rochester offers residents and visitors a unique combination of rural character and prospering commerce. Historically, there has been a balance between the two. To continue to support this healthy balance, land use policies must consider the relationship between Rochester's aesthetic character and the need for goods and services. Business development is important to the community.

In the 2006 Quintown survey, residents indicated a strong desire to increase jobs in Rochester. Additionally, they felt that many types of businesses, including manufacturing, retail, high-tech, tourism and agriculture should be encouraged to develop in Town.

Yet, residents value the rural character of the Town. Therefore, the types of businesses that Rochester should encourage are those that will exist in harmony with the flavor and character of the village and Town. Businesses such as Inner Traditions, Advanced illuminations and LCS Controls are examples of appropriate businesses for Rochester. In the more rural parts of Town, small-scale agricultural operations, bed and breakfasts and home occupations continue to maintain the Town's unique rural character.

The downside to encouraging businesses to develop and grow within the village center is that they can put pressures on the Town that it may not be prepared to handle. For example, until 2006, Rochester's town septic system was at full capacity and was unable to handle additional hookups. More businesses in Town will also create the need for more parking, which is already at a premium within the Village Center.

The Pattern of economic development in Rochester should remain as it has historically been, with the bulk of the community's mixed commercial development located within the Village (Business-Residential Area). Outside of the Village the types of commercial development that are appropriate change in nature. Locating primary retail establishments such as Mac's Market and the Rochester Hardware Store outside of the village would not be appropriate. Instead, businesses that locate outside the village should include secondary retail, light industrial, professional offices, small service establishments and home businesses based on their proximity to town services. The farther away from town roads and services, the lighter the type of commercial development should be.

E. Village Designation

Village Designation Benefits Because of its participation in the Vermont Village Designation Program, Rochester's Village has the following benefits available:

• 10% Historic Tax Credits - Available as an addon to approved Federal Historic Tax Credit projects. Eligible costs include interior and exterior improvements, code compliance, plumbing and electrical upgrades.

• 25% Facade Improvement Tax Credits - Eligible facade work up to $25,000.

• 50% Code Improvement Tax Credits - Available for up to $50,000 each for elevators and sprinkler systems and $12,000 for lifts. Eligible code work includes ADA modifications, electrical or plumbing up to $25,000.

• 50% Technology Tax Credits – Available for up to $30,000 for installation or improvements made to data and network installations, and HVAC reasonably related to data or network improvements.

• Priority Consideration for various ACCD, VTrans and ANR grants and incentives including, ACCD's Municipal Planning Grants, State Historic Preservation grants, Vermont Community Development Program (VCDP) grants, VTrans Bike/Ped and Transportation Alternatives grants, Northern Border Regional Commission Grants, ANR Water and Wastewater subsidies and loans, and various other state grants and resources.

• Priority Consideration by State Building and General Services (BGS)

• Priority site consideration by the State Building and General Services (BGS) when leasing or constructing buildings.

Participation in the Vermont Village Designation Program provides benefits to businesses located within the designated boundary. This program offers tax credits for the revitalization of buildings within designated areas, which is beneficial to existing commercial landowners within the designated area and the designated village receives priority consideration for some state grants (see text box for a list of the benefits). The residents of Rochester recognize the economic importance of their Village Center; therefore, to continue access to these benefits for the commercial landowners and the village, it is the intention of the Town to continue to participate in the Village Designation program. Being a designated village supports the traditional Vermont development pattern of a compact village center surrounded by rural countryside, as well as the Town Plan's goals of continuing to support historical economic and land use patterns of Rochester itself.

F. Goals, Policies and Recommendations

Goals

1. To encourage a strong and diverse local economy that provides satisfying and rewarding employment opportunities for residents while maintaining the community's rural character.

2. To strengthen and maintain the town's agricultural, forest and recreational economies and to ensure continuance of village and rural character.

Policies

1. It is the policy of the Town to cooperate with neighboring towns, regional planning commissions and economic development groups to plan for and maintain a balance between;
    a. The type of jobs created.
    b. The number of jobs created.
    c. The natural population growth in the area.

2. It is the policy of the Town to support the development of local enterprises that create markets for locally produced goods and services.

3. It is the policy of the Town to encourage new business development in appropriate locations where services such as roads, fire protection and power supply are available or planned.

4. It is the policy of the Town to support creation of regional economies that do not place unreasonable financial burdens on the taxpayers of Rochester to support those economies.

5. It is the policy of the Town to attract diverse and sustainable businesses in Rochester which provide jobs and contribute to the small-town quality of life.

6. It is the policy of the Town to provide for reasonable zoning standards enabling home occupations and home businesses to be developed or to continue.

7. It is the policy of the Town that primary retail development shall be in designated Village Area.

8. It is the policy of the Town to prohibit development that has the effect of creating sprawl.

Recommendation

1. To further investigate options for increasing the amount of available parking, possibly by making Park Row and Huntington Place one way, thus freeing up more area for parking spaces.
2. Rochester should renew its village designation when it expires in 2018.

IX. Transportation

Land use, energy, and transportation are related. Land use, both within and outside Rochester's borders, drives the need for improvements to the transportation system. At the same time, local land use goals must be facilitated in part by providing the necessary transportation facilities to accommodate growth where growth is desired. In addition, a given land use can have very different impacts on the transportation system depending on how it is sited and designed. Land use and transportation are both linked to the town's economic well-being. Poorly planned land use patterns can increase transportation costs and the tax rate. Well-planned development can add to the tax base of the town, providing additional funds for the transportation system.

A. Public Highway System

Highway classifications determine the amount of state aid available to assist with repair and maintenance. The Vermont Agency of Transportation (VTrans) and the Selectboard determine road classes. Criteria include traffic volume, road condition and function. Class 2 highways are the major connectors linking villages with each other and with state highways. They also receive a higher rate of State aid than Class 3 highways.

Miles of Roads in Rochester	
Class 1	0
Class 2	12.24
Class 3	38.78
Class 4	6.61
Total Town Roads	**57.63**

Figure 18: Miles of roads in Rochester (*Source: Vtrans*)

Twenty-one percent (21%) of Rochester's roads are Class 2. Class 3 highways are other town roads that are maintained in a manner enabling them to be driven under normal conditions in all seasons by a standard car. The majority (67%) of Rochester's roads are Class 3. 11% of Rochester's highways are Class 4. Class 4 highways are generally in poor condition and are limited in maintenance due to their relative low level of use or seasonal nature. No state aid is available for work on Class 4 highways.

While not suited for regular traffic, Class 4 roads do represent an asset for the town from a recreation standpoint. Such town-owned corridors will help ensure that there will continue to be a place to enjoy snowmobiling, cross country skiing, walking, hunting, horseback riding and other outdoor recreation.

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

The need to constantly maintain gravel roads can be exacerbated during severe weather events. During Tropical Storm Irene 30 roads were damaged, with many experiencing severe damage. While not all impacts can be controlled, there are mitigation strategies that Rochester can implement. Maintaining a reliable and up-to-date inventory of existing culverts and structures, coupled with a short and long-range plan for replacement and upsizing is essential. Replacing deficient culverts and bridges carries the greatest potential for addressing water quality – designing appropriately scaled structures that can handle flood events, stormwater runoff, promote fish passage, and minimize the discharge of road sediment. These upgraded culverts and bridges, operating in greater harmony with the natural environment, will also be less likely to fail during storm events. This is a concern as officials from the Agencies of Natural Resources and the Agency of Transportation plan for the possibility of another storm event equivalent to Tropical Storm Irene.

B. Class 4 & Trails

Class 4 roads and trails primarily offer access to Town and conservation resources and provide unique insights into an agrarian landscape long abandoned. Many Class 4 roads have been incorporated into the natural landscape whereby very little development has occurred along these roads. The town does not plow these roads during the winter. Public utility services or other municipal infrastructure that typically accompany roads are nearly nonexistent. Often these roads are scenic travel corridors for hikers and bicyclists and provide limited access to hunting and conservation lands.

The town also has 6.6 miles of legal trails. Trails are used exclusively for recreational purposes and are not intended for vehicle access; therefore, they are not maintained.

C. Development Review Road Standards

The Town currently uses highway rules and regulations based on state standards that were adopted by the Selectboard in 2013. This policy details road construction standards and policies for road classifications, right-of-way, access, road acceptance, and numerous other construction and maintenance related activities. The responsibility of ordinance implementation rests with the Selectboard and the Rochester Road crew.

Insofar as guidelines for zoning review can contribute to this process, the following planning considerations should continue or be expanded upon in future policy updates:

- Emergency management services will have guaranteed safe access to all development.
- Roads should be designed with multi-modal transportation safety (pedestrian, bicycle, etc.) in mind.
- Since local and state road construction follows State of Vermont design standards, private roads should be constructed to those standards, thereby minimizing changes if the road is accepted by the Town later.
- Road design and construction should adhere to the relevant Town Plan goals and objectives - land use, natural resources and transportation elements.
- All roads will reflect a context-sensitive design that preserves and enhances the adjacent land uses and transportation system.

- Private road and driveway standards should be adopted to ensure stormwater is not discharged onto public highways or drainage systems.
- The development of private roads shall be approved by the Selectboard after review of the proposed road by the town road Supervisor and a designated representative of the Fire Department that serves the town.

Major transportation projects often place a greater emphasis on contemporary engineering design standards. However, in some instances, the design and engineering of roadways and bridges fail to consider a town's unique historical and natural landscapes. The design of a transportation project should account for a road being historic, scenic, pleasant to drive and respectful to the people and businesses living alongside it. While engineering sufficiency criteria are important factors for road and bridge improvements, compatibility with existing and future development patterns are also important considerations.

D. Access Management

According to the VTrans definition, access management is a process that provides or manages access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity needs, and speed. Access management is an important process to provide reasonable accessibility to adjacent land uses while maintaining a safe and efficient flow of traffic. Transportation professionals have established that a single, well-designed access to a public highway presents few concerns for the traveling public. However, if access has been poorly designed and/or its frequency increases, the road's health declines proportionally. The result is increased traffic congestion, crash rates, and road maintenance obligations to handle surface water improperly channeled to the road surface or shoulders. Ironically, these factors eventually compromise access to all land uses along the affected roadway. In many instances, towns are forced into costly highway expansion projects.

Developers must get a permit from the town to access town roads, but there are no formal criteria for design of these access points. The Town recognizes the value of access management and can implement access management strategies through its planning and public works related ordinances and policies. The following are some of these strategies for all public and private transportation and development projects impacting local and state public roads as well as private roads:

- Utilize State of Vermont design standards for all temporary and permanent access, to include emphasis on drainage, sight distance, and access for emergency services;
- Encourage use of shared driveways and/or permitting access that may result in a future shared driveway;
- Require the review of access for existing development whenever a change of use, or other application process is brought before the Town;
- Encourage commercial properties to use existing development nodes to preserve or create road segments with few accesses;
- When practical, approve subdivisions with private and public road designs that allow shared access with other adjacent subdivisions and/or have the private rights-of-way reserved so an access may be built to connect to existing and future development;

- Encourage permanent landscaping and roadside enhancements to visually define access points and contribute to the roadway's aesthetic character;
- Use sight-distance standards based on the actual travel speeds and not the posted speed limits. If no such data exists or is not current, then the Town will work with the Regional Planning Commission to obtain the appropriate data.

E. Other Modes of Travel

Bicycles and Pedestrians

Many residents bike or walk on town roads in Rochester. The rural nature of most of Rochester's roads makes bike/ped travel outside of the village's system of sidewalks reasonably safe. Route 100 is considered a prime location for cycling due to the scenic nature of the valley. But, in some areas travel along route 100 is less safe due to higher traffic volume, low visibility curves, speed and a lack of available shoulders.

Rochester has 6.8 miles of legal trails, all of which can be used by the public for hiking. Additional recreational opportunities can be found using trails maintained by the Vermont Association of Snow Travelers (VAST).

Public Transportation

Rochester, like most Vermont towns, has limited public transportation. Stagecoach, Inc. offers weekly transportation from Hancock to Randolph (stopping in Rochester), and monthly transportation to West Lebanon, NH. Additionally, limited public transportation in the form of special requests for individuals who need transportation for medical reasons, etc. is available. Rochester residents can take advantage of Stagecoach's "Ticket to Ride" Program which helps pay a substantial percentage of the cost of rides for senior citizens (60+) and persons with disabilities. This is especially helpful when there is not available transportation in the household or the person requesting the trips is unable to drive on the day of the trip. Ticket to Ride is available for a broad array of destinations, such as medical services, shopping, errands, and social purposes.

Given that Rochester's elderly population is growing, the need for an affordable source of public transportation that can bring the elderly to major medical facilities like Dartmouth Hitchcock and larger commercial centers for day-to-day shopping needs is important.

Air and Rail

There are no airports in Rochester. Resident's would have to go to Burlington International Airport, Rutland Regional Airport, or to the Lebanon Municipal Airport. There are also no rail lines in Rochester, residents will have to go to Rutland or Randolph to use Amtrak.

F. Vermont Scenic Byway

Rochester has been designated as part of the Scenic Route 100 Byway (Route 100 and Route 100A). This

Vermont Scenic Byway designation offers travelers historic, cultural, scenic and recreational information and waypoint centers about the towns and villages along the Byway. The Scenic Route 100 Byway is a joint effort of town representatives from Pittsfield, Killington, Bridgewater, Plymouth, Ludlow and Andover; Okemo Valley Chamber of Commerce, Office of Killington Economic Development and Tourism, local businesses, the Southern Windsor County and Two Rivers-Ottauquechee Regional Planning Commissions. The Scenic Route 100 Byway was designated as Vermont's 8th Scenic Byway in April 2011 and was expanded in the spring of 2013 to include Rochester and several neighboring communities. The byway now runs from Granville south to the Massachusetts border and incorporates 20 towns along Route 100.

The Scenic Route 100 Byway has a Corridor Management Plan which outlines the management goals for economic development, transportation, natural and scenic, land use and historical areas. All towns have approved these Corridor Management Plans which aim to enhance the village areas, promote tourism and economic development but also preserving the rural character along the Byway.

G. Parking

Parking within the Village of Rochester presents some challenges to the community. The limited number of parking spaces that are available along the Park and around the commercial core are often full. During major events parking overflows onto the Park. In addition, the only public lot (in front of the Town Clerk's Office) is often occupied by the employees of local businesses.

The community has discussed options for increasing available parking, including eliminating one lane of traffic around the park (making traffic one-way) to gain spaces. Additional discussions have proposed creating other municipal lots in areas adjacent to the village. To date, no concepts have been formally accepted by the community.

In addition to municipal parking, there is a desire to have a park and ride facility located in Rochester. With many residents commuting out of town for work, a park and ride facility would encourage carpooling.

H. Goals, Policies and Recommendations

Goals

1. To maintain the rural and scenic character of the back roads and byways thereby protecting the rural scenic quality of the town whenever possible.

2. To provide and maintain a safe, energy efficient, and cost-effective transportation system integrating all modes of travel (auto, pedestrian, bicycle, and mass transit) and meeting the needs of the public in a manner consistent with the other goals, policies and recommendations of this Town Plan.

Policies

1. It is the policy of the town to consider public input prior to a decision to substantially change the maintenance level, surface treatment, or class of a town road.

2. It is the policy of the town to integrate land use and transportation planning by encouraging concentrated growth in areas served by an adequate highway system, utilizing land use regulations and appropriate highway access management techniques to control the impacts of development on the transportation system, and making transportation improvements in areas where growth is desired.

3. It is the policy of the town to encourage access management techniques that limit the number of access points during new development along highways to reduce driver confusion and traffic congestion and to minimize conflicts between through and local (turning) traffic via provisions on further subdivision in new access permits.

4. It is the policy of the town to cooperate with other communities in the region through the TRORC and its Transportation Advisory Committee to ensure that the region's transportation system is developed in a well-coordinated manner that recognizes and balances the needs and desires of each community.

5. It is the policy of the town to consider the relationship of a road to surrounding features of the landscape when planning improvements needed to safely accommodate increasing traffic.

6. It is the policy of the town to combine widening of roadways to accommodate safe use by bicyclists with traffic calming measures and enforcement of speed limits to ensure that traffic speeds do not increase.

7. It is the policy of the town to retain Class 4 roads, trails, and other public rights-of-way as public resources.

8. It is the policy of the Town to require development on private roads to adhere to town access standards and to provide safe year-round access for town services, particularly fire and rescue.

9. It is the policy of the Town to oppose any effort by the State to add additional lanes of vehicular traffic increase the amount of through traffic or increase the speed limit. However, any efforts to expand the shoulders of Route 100 and Route 73 should be supported.

10. It is the policy of the town to maintain a reliable and up-to-date inventory of existing culverts and structures, coupled with a short and long-range plan for replacement and upsizing.

11. Any increase in the use of Bethel Mountain Road for through traffic, particularly truck traffic, should be opposed. That road is far too steep and runs too close to village dwellings to be suitable for through truck traffic. The Selectboard should be encouraged to do all in its power to

establish a realistic size and load limits on Bethel Mountain Road.

12. Support the designation, corridor planning, and promotion of the Scenic Route 100 Byway as identified in the Corridor Management Plan.

Recommendation

1. The Selectboard should develop a town highway capital plan and schedule that will guide maintenance and road infrastructure investments in the future.

2. Encourage the development of a park and ride in or near the village to encourage carpooling.

X. Utilities and Facilities

The provision of services and maintenance of facilities is one of the key roles of any municipal government. The cost of services and public facility maintenance can represent a substantial amount of a municipality's yearly budget (not including transportation, which is generally the largest portion).

A. Capital Budgeting & Planning

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

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

At present, the town of Rochester does not have an adopted Capital Budget and Program to help guide investments in community infrastructure and equipment. The Planning Commission may make recommendations to the Selectboard regarding what capital investments should be considered annually.

B. Municipal Buildings

Municipal Building

In 1982 the Town renovated the Little School Building on School Street for use as the Town Office. The facility provides a vault and office for the Town Clerk, Treasurer and Constable, a small office/conference room for the Selectboard, and a spacious room for meetings, public hearings and voting, as well as a meeting place for other groups. In 1995, renovations took place to make the building handicap accessible. No major upgrades or improvements to the Municipal Building are planned at this time.

Town Garage

The Town Garage, located in the village, is a 100 foot by 40-foot structure housing the Town road equipment. The metal building consists of five bays (three heated) and is well stocked with tools and equipment for minor repairs. In 1985, a salt shed was built for winter storage. Sand is stored on the site.

The Town Garage was flooded with four feet of water during TS Irene. Many small tools and equipment were destroyed. All the insulation, wall covering, fuel tank, furnace, office area and bathroom needed to be replaced. Most of these costs were covered by either insurance or FEMA grants. The garage is adequate for future needs.

An energy audit of the Rochester Town Garage was conducted in 2010, which included a list of needed improvements, but did not outline the potential costs of the suggested efficiency upgrades.

Library

The Rochester Public Library serves as the primary library for the residents of the towns of the upper White River Valley, Granville, Hancock, Rochester, and Stockbridge. The mission of the Rochester Public Library is to promote reading for the enjoyment, self-education and enrichment of its patrons in a welcoming atmosphere. Community members are invited to explore and satisfy their curiosities through books, current materials, and a variety of services. The children's collection and services encourage an enthusiasm for reading and life-long use of the library. The library sponsors adult and children's reading programs, storytelling, a summer children's program and a summer lecture series. The library seeks to achieve its mission by setting goals and objectives in a five-year plan.

The Rochester Public Library has 750+ registered patrons and circulates an average of over 15,500 pieces of library material yearly. The collection includes 14,000 volumes and patrons have access to all the resources in Vermont's regional public and college libraries through the computerized library loans.

The Rochester Historical Society has a museum on the second floor of the library with striking displays depicting the styles of the past and remnants of industries and agriculture. Many residents, past and present, give their treasures of local interest to the Society to be displayed. There is a large collection of scrapbooks, news items and photographs.

In 2011 the library building received a planning grant from the Vermont Community Development Program (VCDP) to develop plans to bring the library into compliance with the Americans with Disabilities Act. These plans are now complete and will include a new accessible ramp entrance, renovated bathroom, and the installation of a lift to provide access to the second floor. The plans also include a proposed expansion of library space with a new addition along the rear of the building and improvements to the entire second floor to enable year-round use. The library is currently preparing additional grant applications and fundraising to complete this long-anticipated project.

The project will be completed in phases based on available funding. The estimated total funding required for this project will be approximately $446,000. Funding sources will include grants (including additional VCDP grants), municipal funding and the Library’s capital campaign fund.

An energy audit of the Rochester Public Library building was conducted in 2010, which included a list of needed improvements, all of which are slated to be upgraded during planned renovations.

Fire Department

In 2012 the Rochester Fire Department realized its long-time goal of finding a location to build a new firehouse to replace the inadequate current building. After significant damage to their offices from Irene flooding, Advanced Illuminations, an LED lighting manufacturer, donated its land to the Town for use as a location for a new firehouse. The voters approved a bond issue in June of 2012 for $395,000 to fund the construction of the new facility, with supplemental funding to be raised by the Fire Department.

Construction began in the spring of 2013 and will be completed by the end of the summer. The new building will be approximately 4800 Sq. Ft with four truck bays, meeting area, and office space.

C. Privately-Owned Community Buildings

Pierce Hall

Built in 1916, Pierce Hall was designed by local architect Charles Kinsman and commissioned by Julia and Ellen Pierce in memory of Chester Pierce, Sr. and his son, Edward L. Pierce. The Pierce sisters planned and envisioned the structure as a community center. In 1932, Pierce Memorial Hall was given to Masonic Rural Lodge #29 F&AM which used one room of the building as their lodge and continued the operation of the Hall as a community center. In 1971, The Masons deeded the Hall to the Rochester Town School District for kindergarten and shop classes. In 1973, the building was closed for large public gatherings. When the current Rochester High School building opened in 1974, Pierce Memorial Hall was deeded back to the Masons, who renovated it for limited use of space. The Masons owned and occupied the premises for almost thirty years.

In 2001, nine community members created a non-profit association (PHCC) to begin discussions with the Masons to restore Pierce Hall to its original beauty and its use as a viable community center. In May 2004, the Masons voted to give Pierce Hall to PHCC, Inc., in exchange for a permanent meeting place within the building. October of 2004 PHCC, Inc., received through deed transfer, ownership of Pierce Memorial Hall

During 2004-2005, PHCC worked with the Preservation Trust of Vermont on plans to most effectively maintain the integrity of the building and to restore the facility to its original design. Through a series of ongoing meetings, proposals and drawings were discussed and reviewed. On October 21, 2005, The Preservation Trust of Vermont approved the concept designs for the restoration and additions to Pierce Hall. On November 1, 2005, the PHCC Board of Directors voted and approved plans for the Project which has an estimated minimum cost of $1, 350,000. Much work has been accomplished towards restoring Pierce Hall for use as a community center and meeting hall. Most of the major structural work has been completed including the construction of an elevator tower and stairway for accessibility. This work has continued through grants and private donations. Most of the remaining work is in the renovated

hall and the new multiuse rooms in the lower level. Pierce Hall has already been available to host a few limited public events.

Park House

Park House, located on the park in Rochester's village center, has 17 rooms and offers independent family-style living for the elderly. Residents have their own bedroom furnished with their own furniture and either a private or semi-private bathroom. They share common areas such as the living and dining rooms, front porch and beautiful gardens. Residents are encouraged to participate with the household and outdoor tasks as they are able.

D. Cemeteries

There are seven cemeteries located in Rochester: Woodlawn, Village, North Hollow, Bingo, West Hill, Tupper and Little Hollow. Maintenance and management of these cemeteries is overseen by a five-member Cemetery Commission elected by the town at Town Meeting.

Woodlawn Cemetery which is located just south of the village on Route 100 is Rochester's largest cemetery. During Tropical Storm Irene, the Woodlawn Cemetery was severely damaged by erosion resulting in the loss of or displacement of remains located there. Since the storm, the Cemetery Commission and the town have worked with engineers and designers to have the lost areas restored and redesigned for improved flood resiliency. The damaged portion of the cemetery was rededicated and remains were reinterred in June of 2013.

E. Town Services

Sewer System

In 1972 Rochester installed 3 municipal septic tank/ leachfield type sewage systems to serve approximately 124 homes and businesses located in the village. Collection pipes and fields have been periodically upgraded. Following the failure of Site 2, a fourth site was added in 2005 which provided new capacity for growth in the village. Site 1 has a current reserve capacity of approximately 6850 GPD, and site 4 has a reserve capacity of approximately 12,000 GPD. The three currently operating fields should allow the Town to meet anticipated future needs.

Three sections of sewer collection main and manholes were upgraded in 2012. Two sections of deteriorating original clay sewer line were replaced with a grant and loan from the USDA Rural Development. A section of sewer main was relocated along Brook Street into the roadway, and away from the brook, after significant damage during Tropical Storm Irene.

The Village Water Supply

The Town well is located south of the village on Route 100 just north of the junction of Route 73. This system has seen several changes over the years. It was rebuilt in 1982 with the assistance of grants from the State of Vermont and low-interest financing from FMHA.

Renovations included a gravel packed well, a reservoir on Brook Street, 8-inch and 12-inch pipes, fire hydrants, and water meters. These improvements have given residents first class water quality. It has also improved the firefighting capabilities. The village water supply system has adequate capacity to meet village needs.

The Town well is located within an aquifer recharge district where development is limited to agricultural and outdoor recreational uses. Rochester has a wellhead protection plan which is available for viewing at the Town Clerk's office.

The water supplies outside of the village are owned by individuals and, in some cases, these are cooperative systems.

Solid Waste Management

The Solid Waste Management Alliance program covers the Towns of Royalton, Bethel, Stockbridge, Barnard, Pittsfield, Hancock and Rochester. In 1994, construction of the waste management facilities on Waterman Road in Royalton was completed. These facilities are jointly owned by the Towns of Bethel and Royalton and are situated on the site formerly used for the landfill operation.

The new facility consists of an office and recycling building equipped with a 60 foot - 60-ton scale, a compacting unit which is currently handling a voluminous flow of corrugated cardboard, and a separate transfer station where residual non-recyclable waste is loaded onto a transport vehicle.

The program provides total waste management service to the Alliance Towns and is in full compliance with State and Federal regulations, including recycling, hazardous waste collection events and disposal provision for residual wastes.

Markets for recyclables are improving and may result in the recycling component of the program being self-supporting. The Town of Rochester, as a member of the "Alliance", participated in the planning process since its inception in 1991. The Town of Rochester engages a hauler to pick up recyclable items monthly at the town office. This has proven successful in reducing solid waste.

Rochester residents must pay private haulers for non-recyclable solid waste pickup. The Transfer Station charges a tipping fee based on tonnage which is paid by the haulers. The haulers in turn charge customers

based on volume generated. The Town of Rochester's membership and active participation in the Alliance has proven to be beneficial and economically sound for its residential and commercial establishments. The Alliance has been and continues to be advisory to the operation of the Solid Waste Management facility.

F. Other Services

Telephone System

Landline telephone service in the Rochester area is supplied by Fairpoint Communications. A building on Park Row has the equipment for switching local and long-distance calls. For fire and rescue services residents call the 9-1-1 emergency number.

Cellular Communications & Section 248a Review

There are no cell towers located in Rochester, but there is an antenna located within the village in the Federated Church steeple. Cellular coverage in Rochester is generally considered poor. When surveyed in 2012 residents were asked if they would "object to or support the location of a new cell phone tower on Rochester's ridgelines". 60% of the responses indicated that they would support one regardless of the location and an additional 20% indicated they would support a cell tower based on location. Rochester has a cell tower ordinance that guides the design of any towers that might be developed; however, any cellular provider who is creating a network of cell towers is exempt from local land use regulations under V.S.A Title 30, Chapter 5, §248a.

While residents are supportive of expanding cellular service within the community, they do not want to do so to the detriment of the rural character of the town**.** A Section 248 review addresses environmental, economic, and social impacts associated with a project, similar to Act 250. In making its determination, the Board must give due consideration to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, it is appropriate that this Plan address these land uses and provide guidance to town officials, regulators, and utilities. Specific language in this plan relating to the siting and development of cellular communications facilities is in Chapter VI, Section B of this Plan.

Internet

Internet - There are presently five ways to access the internet in Rochester, they are: landline, DSL, cable, satellite and cellular internet.

Dial-up - Dial-up access is the most commonly available service to residents, but speeds over a telephone modem are very slow, and given the ever-increasing need for bandwidth in day-to-day use of the internet,

it is not practical for more than checking email. The faster and more stable options available to some residents are via cable, satellite, DSL and cellular services.

Cable Internet – Comcast offers internet through their existing cable TV system. Speeds are generally considered good for home users, and businesses can acquire higher speeds through business specific packages. Home cable internet can be subject to slow-downs at peak hours when many users are accessing the internet at the same time. Cable is most commonly available along main roads.

DSL (Digital Subscriber Line) - DSL is very similar to cable in speed. It is less subject to decreases in speed caused by heavy internet traffic because a certain amount of bandwidth is dedicated for each user. DSL is provided to those within the service area of Fairpoint Communications, but only within three-line miles of the Fairpoint switching station in Rochester's village.

Satellite Internet - Provided by companies such as Dish Network, Direcway and Wildblue, satellite internet is an option for residents who are unable to access the internet via cable or DSL provided they have a clear view of the southern sky from their location. Although bandwidth over satellite is on average three times faster than a dial-up connection, it is more expensive than other methods of access and it can be affected by heavy weather such as torrential rains and blizzards.

Cellular Internet – With the growing amount of bandwidth available to smartphone users via cellular phone networks, cellular providers are offering the ability to utilize their network for internet access. The nature of cellular connections is such that they are less susceptible to disruption from weather conditions than satellite internet. However, a clear and strong connection to a cellular tower is required to utilize this service. The State of Vermont has put a substantial amount of support behind the notion of providing internet access via this medium to those areas that are currently underserved.

It is likely that as many as two-thirds of the households in Rochester have access to the internet only via landline or satellite modem. Because of the difficulties in convincing cable and DSL providers to extend their coverage areas, other towns have considered alternatives to those listed above. In some cases, wireless internet providers have placed towers in towns that provide wireless broadband access to those within line-of-sight.

Rochester is a member of the East Central Vermont Community Fiber (EC Fiber) Network. This organization has developed a long-term plan to extend fiber optic cable throughout the region. Fiber optic cables offer the fastest connection speed available.

G. Goals, Policies and Recommendations

Goal

1. To provide public services and public facilities that meet the needs of the community without creating an undue burden on taxpayers or an adverse impact on scenic, environment and cultural resources.

Policies

1. To provide residents with safe, effective, responsive and affordable municipal infrastructure, facilities and services consistent with other town goals and whenever possible, to encourage and work with other public and private utility or service providers to do the same.

2. Town officials will participate in the Public Service Board's review of new and expanded telecommunications facilities to ensure that the goals and policies of this plan are considered in future development.

3. To effectively plan for future investments and upkeep of community facilities to avoid overburdening taxpayers due to unexpected maintenance costs.

Recommendations

1. The Planning Commission, with assistance from the Selectboard and Budget Committee, should create a Capital Budget and Program to guide future investments in infrastructure.

2. The Selectboard should work with the Planning Commission to find ways to enhance cellular and internet services in Rochester.

XI. Health and Emergency Services

A. Health Care Facilities

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

The lower population density of Vermont's rural countryside and the larger the area over which the population is distributed can make providing adequate health care more difficult, particularly for the elderly who may not be able to drive themselves to major health care facilities. Likewise, in rural areas, emergency care for severe trauma or major acute illnesses such as stroke and heart attack may take longer to arrive than in more populated locations, risking potential loss of life.

Rochester is fortunate to have the Rochester Health Center. The Rochester Health Center provides primary health care, including family and internal (adult) medicine, in a convenient Main Street location. Physicians cover the Health Center on a rotating basis as a secondary office and have privileges at Gifford Memorial Hospital in Randolph, Vermont. Gifford Medical Center offers a wide range of services to serve most medical needs and is closely associated with Dartmouth-Hitchcock Medical Center in Lebanon, NH. In addition to Gifford, there are several smaller health centers in Randolph. There are large-scale regional hospitals in Rutland and Berlin, and a tertiary care facility in Lebanon, NH.

B. Fire Protection Services

The Rochester Volunteer Fire Department is an all-volunteer organization that is funded in part by the Town of Rochester and private fundraising. The department is chartered for up to 30 members; all are required to attend regular firefighting classes. As of 2012, there were twenty-two active members of the Fire Department including two “junior members” (16-18 years of age). Executive officers are elected bi-yearly, consisting of a Chief, two Assistant Chiefs, one Captain, one Lieutenant, Secretary, Treasurer, and two Stewards. The Fire Department is always seeking additional members, particularly those who work in town or are readily available during the day.

The alarm system utilizes the E 9-1-1 emergency phone method of reporting incidents. Rockingham State Police Barracks acts as the system's dispatching service. Volunteers are equipped with portable pagers.

Neighboring towns of Hancock and Granville respond to all structure fires, as mutual aid is important due to daytime manpower shortages. Cooperation among towns is also important due to the rising costs of firefighting equipment. The Rochester Volunteer Fire Department also serves with the White River Valley Ambulance at auto accidents in Rochester.

The Rochester Volunteer Fire Department was vital to the community during Tropical Storm Irene. Members helped wherever needed, doing wellness checks on individuals, conducting electric surveys with CVPS, directing traffic, staffing helicopter landing zones, assisting medical transport, and using fire

hoses to remove culvert debris. The community remains grateful for their service.

C. Police Protection Services

First and second constables are appointed by the Selectboard. Although the state does not require constables to be certified law enforcement officers, Rochester has been fortunate to have constables who are certified. Rochester's constables focus primarily on traffic control and backup to whatever might arise while on duty. They also support the Vermont State Police when available.

The Vermont State Police force at the Royalton station on Vermont Route 107 is the town's first line of law enforcement protection. Full time law enforcement services are to be provided to Rochester residents by the State Police from the Royalton Station.

D. Emergency Medical Services

White River Valley Ambulance

In 2013, the Town of Rochester voted to utilize White River Valley Ambulance for emergency medical services. White River Valley Ambulance, Inc. (WRVA), is a not for profit emergency ambulance and rescue service composed of paid full-time, part-time and volunteer staff. Emergency medical service is provided to a geographical area encompassing 280 square miles and approximately 10,000 residents. In addition to Rochester, WRVA covers Barnard, Bethel, Braintree, Brookfield, Hancock, Granville, East Granville, Randolph and Stockbridge. The Town of Rochester pays WRVA for its services. It should be noted that those who use the ambulance will be charged for WRVA's service on an individual basis in addition to the fees paid by the town.

Dartmouth-Hitchcock Advanced Response Team (DHART)

The Dartmouth-Hitchcock Advanced Response Team is based in Lebanon, NH at Dartmouth-Hitchcock Medical Center. DHART Crews provide air medical transportation services to the medical communities of Northern New England. In addition, DHART flight crews respond to public safety agency requests for medical evacuation of trauma patients from scenes of injury, and will transport to the closest Trauma Center in the region's five states. Operating 24 hours a day and seven days a week, DHART Crews transport adult, pediatric and neonatal patients to ANY appropriate medical facility in New England.

E. Emergency Management Planning

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

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

Planning for emergencies is essential at the municipal level and should focus on all four of the areas outlined above.

Local Emergency Operations Plan

Rochester has a Local Emergency Operations Plan (LEOP). This plan supplies a list of contacts to use during an emergency as well as information on shelters, vulnerable sites and which town officials might play which roles during a disaster. It is not typically a public document as it has private numbers in it, but the people expected to use it should have hard copies. The Selectboard should continue to keep the BEOP up-to-date and ensure that all parts of municipal government that are active during a hazard event are aware of what is in it. This includes the Selectboard, Fire and Rescue, Road Crew and Shelter coordinators.

Hazard Mitigation Plan

Disaster mitigation covers actions done to reduce the effects of a disaster. For Rochester, the primary hazard is flooding, with a variety of other lesser hazards. All hazards have been reviewed in the town's Mitigation Plan. There are many ways that the town can reduce damages, and since a disaster does not always result in state or federal assistance, the town should take sensible steps that can reduce disaster costs, damage to property and loss of life.

Emergency Access

Any new property development in Rochester should be designed to allow safe access for emergency services. Poorly designed driveways that are too steep or too narrow can limit access, particularly in the winter, and may represent a safety hazard for the emergency responder. The Rochester Zoning Bylaw contains provisions to ensure that land development shall be designed to ensure access necessary for emergency services.

In new subdivisions, the design of such drives or similar facilities shall be done in consultation with the Rochester Fire Department. On major subdivisions, the Zoning Board of Adjustment may require the provision of storage ponds and dry hydrants necessary for adequate fire protection.

F. Goals, Policies and Recommendations

Goals

1. High quality medical care should be available to all Rochester residents.

2. To ensure the protection and safety of the citizens of Rochester against crime and violations of law.

3. To maintain appropriate fire and ambulance service.

Polices

1. It is the policy of the town to support and encourage the development of local health care facilities and counseling services to help residents obtain health care as close to home as possible.

2. It is the policy of the town to support programs that expand medical coverage or improve medical services for Rochester residents.

3. It is the policy of the town to support the development of assisted living or other facilities or services dedicated to supporting the elderly in Rochester.

4. It is the policy of the town to support efforts to provide residents with access to high quality physical and mental health care through local providers.

5. It is the policy of the town to support efforts to decrease response times for emergency services.

6. It is the policy of the town that road and driveway access to proposed developments for fire trucks and other emergency vehicles be evaluated as part of the permit review process.

7. It is the policy of the town to maintain its relationship with White River Valley Ambulance.

8. It is the policy of the town that the Selectboard maintain an up-to-date Emergency Operations Plan.

9. It is the policy of the town to work with the Two Rivers-Ottauquechee Regional Commission to properly plan for hazard events.

Recommendations

1. The Selectboard should update the Local Emergency Operations Plan on a yearly basis.

2. The Selectboard should adopt a Hazard Mitigation Plan with assistance from the Two Rivers-Ottauquechee Regional Commission

XII. Energy

A. Background

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

While the Planning Commission recognizes that energy supply and demand are directed largely by economic forces at the state, federal, and international levels, the way Rochester plans for future growth can have an impact on how much energy is needed and used in this community. For example, a highly dispersed and unplanned pattern of land use can waste both land and energy resources. By planning the location of jobs, public services and housing near growth centers, the consumption of fuel and the need for additional roads can be reduced. The siting and design of buildings and the selection of energy systems can influence efficient use and conservation of energy.

Theories such as the Hubbert Peak Theory (a.k.a. Peak Oil), suggest that at some point – perhaps sooner than later – the worldwide consumption of oil will outpace the existing supply. Although new technologies may enable energy providers to extract oil from locations that were previously impossible to reach, there is most likely a finite amount of oil, which means that Rochester, like the rest of the world, should prepare for a much less oil-dependent future.

B. Energy Demands

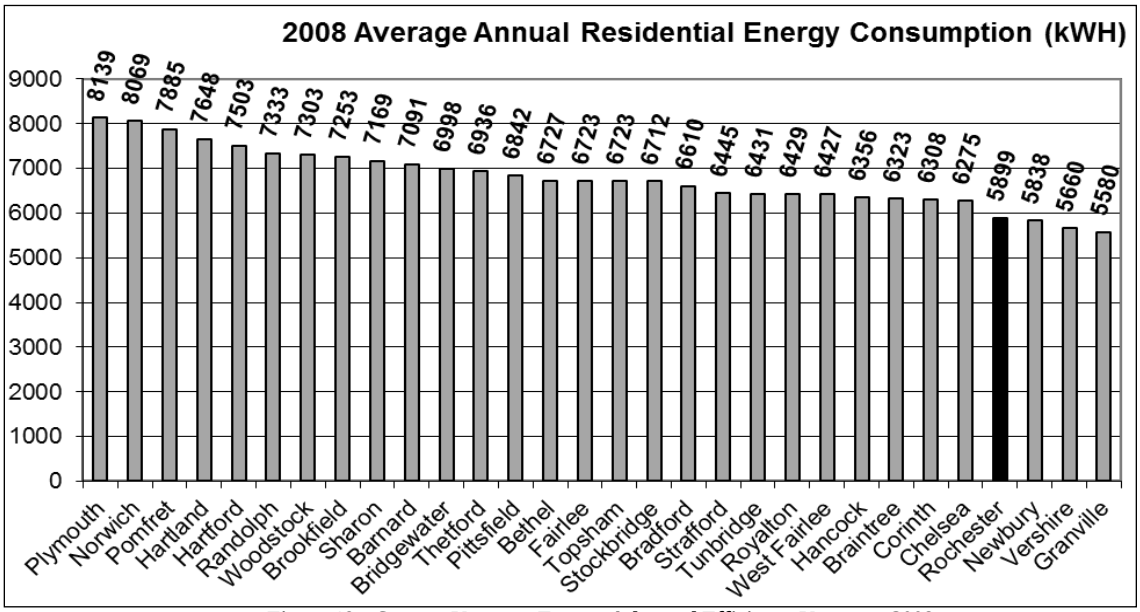

Figure 19 – Source: Vermont Energy Atlas and Efficiency Vermont, 2008

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

In terms of per capita energy consumption for residential and transportation purposes, the North East is about the same as the rest of the U.S. In Vermont, almost 80% of residential energy is dedicated to space heating and domestic hot water, while approximately 34% of the state's total energy usage goes toward transportation.

Of the energy dedicated to transportation, over 50% is used to fuel private cars for residents (as opposed to being used for public transit, road maintenance, or another public purpose). This fact reinforces the need for clear policies that consider the transportation implications of land use decisions in this community.

According to data collected by Efficiency Vermont in 2008, the town of Rochester is twenty-seventh (out of 30 towns) in terms of average annual energy use levels in the TRORC region. In 2008, this data (limited only to residential energy use) determined that Rochester residences used an average of 5,899 kWh of energy, which is less than that used in most other towns in the region. When compared to other communities of similar population size (Fairlee, Strafford, and Topsham), Rochester's level of residential energy use is significantly less.

C. Current Energy Sources

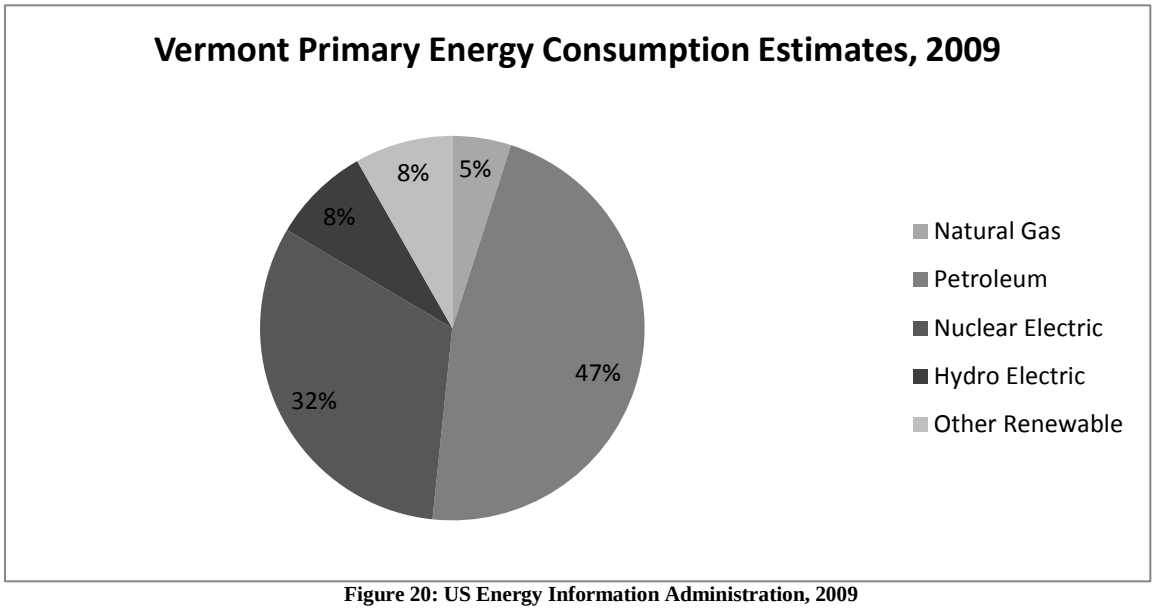

Figure 20: US Energy Information Administration, 2009

Fossil Fuels

Rochester, like most other towns in Vermont, depends primarily on fossil fuels for heating and transportation. As shown in the table above, fossil fuels account for more than 50% of all energy

consumed in Vermont, most of which is used in transportation. Nearly 50% of the oil consumed in the U.S. is imported. Vermont's economic system is so closely tied to the availability of fossil fuels that even modest price increases can lead to inflation, a slowdown in economic growth, and monetary instability. This can have unanticipated adverse impacts at the municipal and residential level. For example, increasing fuel prices make it more expensive for a town government to provide traditional public services and maintain existing facilities. Additionally, rising prices can also make it difficult for residents to heat their homes and put enough food on the table (the price and availability of food is usually influenced by fuel prices).

But these consequences of intensive fossil fuel use are only part of the story. The combustion of fossil fuels has been determined to be the largest contributor of atmospheric "greenhouse gases" (primarily carbon dioxide). There is near consensus in the scientific community that continued accumulation of greenhouse gases within the earth's atmosphere will lead to a warming of the atmosphere, or "greenhouse effect." Such warming can cause severe coastal flooding and unpredictable climate shifts, threatening the viability of the earth's most significant urban and agricultural centers.

Vermont has experienced an increase in the number of severe weather events: in 2011, there were four federally declared disaster events, breaking the record for the most events in a single year. If, indeed, climate instability and climate change are linked, then it is essential that we decrease our reliance on fossil fuels to reverse or at least halt future damage to our atmosphere.

Nuclear Energy

A percentage of Vermont's energy does come from nuclear power which is generated out of state. A properly maintained nuclear power facility can, to some extent, represent a cleaner form of energy production than fossil fuels. However, the mining, processing and disposal of nuclear materials continues to raise questions regarding the viability of nuclear energy; nuclear generated electricity produces various long-lived radioactive wastes which are highly toxic and require extraordinary precautions for safe storage. Existing technology does not assure safe disposal. The industry has not completely resolved safety issues regarding the decommissioning of nuclear power plants.

Renewable Energy

Vermont can successfully claim that a substantial amount of the power used statewide comes from renewable sources when compared to other states. Although the majority of Vermont's renewable energy is generated through Hydro-Quebec (see below), some hydroelectric power is generated in Vermont. Additional sources of renewable energy include several utility owned commercial-scale wind and landfill methane projects.

D. Renewable Energy Resources

For the municipality, individual or small group of homeowners, the key to sustainable energy production will be renewable sources of energy. The term "renewable energy" refers to the production of electricity

and fuels from energy sources that are naturally and continually replenished, such as wind, solar power, geothermal (using the earth's heat to create power), hydropower, and various forms of biomass (trees, crops, manure, etc.).

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

The types of renewable energy found in Vermont are:

Solar Energy

Solar energy has potential for providing clean, reliable, and safe energy, even in Vermont's climate. Most areas in Vermont have the potential for some solar energy production, at least at the residential scale. In Rochester, if all potential opportunities to develop solar energy production were taken advantage of, the town could generate roughly 1,101,139 kWh.

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

Water Heating – Solar water heating is the most common form of residential-scale solar use in Vermont. Solar systems are subject to local regulations although state statute forbids land use regulations that prohibit renewable energy generation.

Electricity Generation – Decreasing costs of equipment have made solar electric generation systems more prevalent. Solar systems are no longer utilized exclusively by "off-grid" buildings. The advent of net-metering allows buildings to be connected to the grid while utilizing renewable energy. Systems that are net-metered are overseen by the Public Service Board and are not required to get a local permit.

There are six net-metered solar electricity sites in Rochester. Because of the nature of solar arrays, they are in some ways more desirable than wind towers. This is primarily because they do not need to be located on high ground and are therefore less visually prominent. In addition, these facilities can be in areas that are less rural in nature, requiring fewer access roads and reducing adverse impacts on wild lands.

When surveyed in 2012, residents were quite supportive of small-scale (20-25 acres) commercial solar energy generation in Rochester. Regardless of this support, if not properly sited, large solar facilities can impact soil and water resources, as well as wildlife habitat and corridors. Considerations must also be given to public safety. Because photovoltaic collectors are reflective, they have the potential to create harsh and blinding lights that could be a hazard to nearby buildings or road traffic. Commercial solar facilities should be developed to avoid negative impacts on the rural character of the area in which they are proposed to be located. Developers should make all possible efforts to minimize damage to important

natural areas as identified in chapter XIII Natural Resources, of this Plan. Additionally, such facilities should be located as close to existing roads as possible to avoid creating an increased need for town services, such as road maintenance.

Wind Energy

Power generated from wind is done through a wind turbine, which is installed on top of a tall tower, where it collects and converts wind into electricity. Towers for home use are generally 80-100 feet in height and are far less obtrusive than larger, commercial "wind farms" that have become a subject of great debate throughout Vermont.

Potential Wind Development Areas (Acres)							
	Class 1 (10-11 mph)	**Class 2** (12-13 mph)	**Class 3** (13-14 mph)	**Class 4** (15-16 mph)	**Class 5** (16-17 mph)	**Class 6** (17-18 mph)	**Class 7** (19-25 mph)
Residential *(30-meter)*	8324	2891	956	649	225	278	0
Small Commercial *(50-meter)*	0	1051	826	418	223	634	368
Large Commercial *(70-meter)*	0	0	19	658	271	534	675

Figure 21: Potential Wind Development Areas in Rochester (Source: Vermont Energy Atlas)

Similar to solar, wind energy is an intermittent resource and its generation fluctuates in response to environmental conditions. The amount of energy produced by a specific wind tower can depend greatly on location, height of the tower and proximity to other obstructions. Nevertheless, most modern wind turbines (when properly sited) can generate electricity 95% of the time.

There are multiple levels of potential wind energy generation, ranging from Class 1 (10-11 mph) to Class 7 (19-25 mph). Rochester's topography makes it a reasonable location for some scale of wind energy generation, but many of the locations on which wind towers would be viable are in the Green Mountain National Forest. The only remaining location that might be viable for commercial wind energy generation is the highest points between Mt. Cushman and Rochester Mountain.

When surveyed in 2012, residents were generally split on their support of commercial wind energy generation. Because survey results indicated concerns about wind energy generation, the Planning Commission would be justified in making a strong statement of policy regarding wind towers, particularly the location of commercial wind energy generation.

Biomass & Biogas Energy Generation

The term 'biomass' refers to biologically-based feedstocks (that is, algae, food or vegetable wastes, grass, wood, methane, and more). Biomass can be converted into an energy source to fuel vehicles (e.g. biodiesel), heat homes, or even generate electricity. According to the 2011 Vermont Comprehensive Energy Plan, those using wood for primary heating consumed about 5.4 cords in 2007–2008, while those using wood as a supplementary source used 2.25 cords. In that same year, Vermont households burned about 20,155 tons of wood pellets, with primary-heat-source consumers burning 3.8 tons and supplementary-heat-source consumers burning 1.2 tons for the season. There are no biomass energy generation facilities in Rochester.

Commercial biomass energy generation facilities should be located close to available biofuels to reduce transportation impacts and costs. A biomass power plant would require a great deal of space to accommodate the various stages of collection and conversion of the mass into fuel before burning it to produce electricity. Water can also pose a problem as biomass facilities require large quantities to handle the recycling process of waste materials. Materials would have to be transported to and from the facility, so truck traffic should be a consideration in selecting a site. Additionally, before a biomass energy generation facility is in Rochester, developers should prove that their proposed project will not negatively impact the rural character of the community or the local road system.

Biofuels

In addition to using biomass for heating, the use of biofuels, particularly biodiesel, is becoming an increasingly popular option for municipalities attempting to cut costs and reduce the environmental impacts associated with vehicle emissions.

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

Growing biomass to use in biofuels may be a viable way to encourage farming in Rochester as well; however, balance should be sought between growing for energy demands and for human and animal consumption. When surveyed in 2012, residents had very mixed feelings regarding biomass energy generation, with only 45% of the responders indicating support, and 26% indicating that they were unsure about it.

Agriculture

The agricultural sector has the potential to become a net generator of energy by growing crops that can be used for biofuel. Farms can contribute cow manure to the process of methane digestion (also known as 'Cow Power') or use fields for the location of large-scale wind power (cows can graze up to the base of wind turbines).

Cow Power is especially popular in Vermont; however, it requires a significant upfront financial investment and is generally only effective when utilized by a large-scale farm. One of the key advantages of methane digestion is that it reduces the amount of methane released into the environment. However, large-scale cow farms can also have adverse impacts on the environment, which should be carefully considered when weighing the benefits and drawbacks of setting up a methane digestion system in this community.

Hydropower

Many locations in Vermont once depended on hydropower to grind grain, run mills and even supply electricity to homes. But, with the onset of centralized power, most of these small-scale power generation facilities have been replaced by massive hydro facilities such as Hydro Quebec.

There are two main forms of hydropower: run-of-river, which uses the natural flow of water to generate power and facilities that store water behind an impoundment. Run-of-river systems rely on seasonal rainfall and runoff to produce power, resulting in periods of low production. Impounding water behind a dam allows for control of the water flow, resulting in consistent electric production.

There are no sites in Rochester that are considered "in-service" (meaning that the site is not actively producing power, but has the basic infrastructure to do so). However, it should be noted that a majority (66%) of residents who were surveyed in 2012 supported small-scale hydropower.

Hydroelectric development necessitates balancing priorities. While the benefits of generating electricity from local renewable resources are evident, they are not without associated costs. The power output from a given stream must be moderated by environmental considerations. A minimum stream flow that is adequate to support aquatic life needs to be maintained and impoundments need to be designed with water quality, land use, and recreation considerations in mind.

Hydropower generating facilities are regulated by the Federal Energy Regulatory Commission and stringent federal water quality standards. As a result, the regulatory process for hydro facilities is extensive and time consuming. Further, streams are public trust resources and the potential impacts of hydro projects warrant significant consideration. Any hydropower development proposed in Rochester shall not result in an undue adverse impact to riverine ecosystems and water quality.

E. Permitting Considerations

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

Section 248

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

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

1. **Preferred Locations**: New generation and transmission facilities shall be sited in locations that do not have an undue adverse impact on Rochester's traditional growth pattern of a compact village center surrounded by rural countryside.

2. **Prohibited Locations**: Because of their distinctive natural, historic or scenic value, energy facility development shall be excluded from the following areas:
   - Floodways shown on FEMA Flood Insurance Rate Maps (except as required for hydro facilities)
   - Fluvial erosion hazard areas shown on Fluvial Erosion Hazard Area maps (except as required for hydro facilities)
   - Wetlands as indicated on Vermont State Wetlands Inventory maps or identified through site analysis.
   - Rare, threatened or endangered species habitat or communities.

3. **Significant Areas**: All new generation, transmission, and distribution facilities shall be sited and designed to avoid or, if no other reasonable alternative exists, to otherwise minimize and mitigate adverse impacts to the following:

   - Historic districts, landmarks, sites and structures listed, or eligible for listing, on state or national registers.
   - Public parks and recreation areas, including state and municipal parks, forests and trail networks.
   - Municipally designated scenic roads and viewsheds.
   - Special flood hazard areas identified by National Flood Insurance Program maps (except as required for hydro facilities)
   - Public and private drinking water supplies, including mapped source protection areas.
   - Primary agricultural soils mapped by the U.S. Natural Resources Conservation Service.
   - Critical wildlife habitat identified by the state or through analysis, including core habitat areas, migration and travel corridors.

4. Zoning Compliance: New generation, transmission and distribution facilities shall be sited in accordance with municipal zoning regulations.

5. **Natural Resource Protection**: New generation and transmission facilities must be sited to avoid the fragmentation of, and undue adverse impacts to the town's working landscape. These include large tracts of undeveloped forestland, critical fish and wildlife habitat areas, open farm land, and primary agricultural soils mapped by the U.S. Natural Resource Conservation Service.

6. **Protection of Wildlife**: Designers must gather information about fish and wildlife habitats that exist in the project area and take measures to avoid any undue adverse impact on the resource. Consideration shall be given to the effects of the project on: natural communities, threatened and endangered species residing in the area and their migratory routes; the impacts of human activities at or near habitat areas; and any loss of vegetative cover or food sources for critical habitats.

7. **Site Selection**: Site selection should not be limited to generation facilities alone; other elements of the facility need to be considered as well. These include access roads, site clearing, onsite power lines, substations, lighting, and off-site power lines. Development of these elements shall be done in such a way as to minimize any negative impacts. Unnecessary site clearing, and highly visible roadways can have greater visual impacts than the energy generation facility itself. In planning for facilities, designers should take steps to mitigate their impact on natural, scenic and historic resources and improve the harmony with their surroundings as they relate to the criteria listed above.

F. Residential Energy Efficiency

There are several ways that the Town of Rochester can meet its local energy demand. First, by lowering that demand and then by working to meet the remaining need with local, untapped energy resources.

Decreasing Energy Use by Changing Behavior

Raising awareness to replace wasteful energy behaviors with energy saving ones can reduce the strain on existing energy resources, and help residents and businesses save money, making the town a more affordable place to live with a higher quality of life.

Decreasing Energy Use by Implementing Energy Efficiency

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

- Insulating with high R-value (or heat flow resistance) material,
- Using high efficiency windows,

- Installing energy efficient appliances like refrigerators, freezers, front loading washing machines, gas heated clothes driers and heating systems without blowers,
- Using high efficiency lighting,
- Using gas and/or solar hot water heaters,
- Siting buildings to make use of existing wind blocks and natural cooling patterns derived from the landscape's topography.
- Siting buildings with maximum southern exposure to capture passive solar energy.

New residential development in the State of Vermont is required to comply with Vermont Residential Building Energy Standards (RBES). Commercial development is subject to similar code regulations. Some examples of the types of development the RBES applies to include:

- Detached one- and two-family dwellings;
- Multi-family and other residential buildings three stories or fewer in height;
- Additions, alterations, renovations and repairs;
- Factory-built modular homes (not including mobile homes).

To comply with the RBES, a home, as built, must meet all the Basic Requirements and the Performance Requirements for one of several possible compliance methods. If the home meets the technical requirements of the RBES, a Vermont Residential Building Energy Standards Certificate must be completed, filed with the Town Clerk and posted in the home. If a home required by law to meet the RBES does not comply, a homeowner may seek damages in court against the builder. A municipality may choose to utilize a certificate of occupancy as part of the zoning process to ensure that an RBES is filed.

G. Municipal Role in Energy Efficiency

Although communities are unlikely to have an impact on energy consumption at the global level, they do have an impact at the local level given their demand for and use of energy. The relationship between a municipality and its energy use creates opportunities to have an impact on local energy use reduction.

Form an Energy Committee

Rochester does not have an energy committee, but towns are statutorily enabled to create one. An energy committee (EC) is a volunteer group that is formed for establishing and implementing the town's energy goals; the group can act independently or request to be formally appointed by the Selectboard. The work that can be done by an EC includes conducting energy audits on municipal buildings, tracking energy use for these buildings, working with the Planning Commission on the Energy Plan. Most importantly, an active EC can help the town save money while saving energy.

Auditing Municipally Owned Buildings

Many towns in Vermont own buildings that are old and inefficient in many respects. For instance, older buildings often have insufficient insulation, wasteful heating and cooling systems, and out-of-date lighting. These kinds of infrastructure problems result in higher energy use with the resulting cost passed onto taxpayers.

Municipal officials should consider conducting audits on additional town buildings to determine what improvements are necessary, and which projects would have the highest cost-benefit ratio in terms of energy and financial savings.

Property Assessed Clean Energy (PACE)

Vermont enacted legislation in May 2009 (Act 45) that authorizes local governments to create Clean Energy Assessment districts. Once created, municipalities can offer financing to property owners for renewable energy and energy-efficiency projects. Eligible projects include the installation of solar water and space heating, photovoltaic panels (PV), and biomass heating, small wind, and micro-hydroelectric systems. Property-Assessed Clean Energy (PACE) financing effectively allows property owners to borrow money to pay for energy improvements. The amount borrowed is typically repaid via a special assessment on the property over a period of up to 20 years; if the property owner wishes to sell the parcel before fully repaying the obligation, then the obligation is transferred to the new property owner at the time of sale. Rochester has not yet created a PACE district.

Capital Budget Planning

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

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

At present, the town of Rochester does not have an adopted Capital Budget and Program to help guide investments in community infrastructure and equipment. The Planning Commission may make recommendations to the Selectboard about what capital investments should be considered annually. Rochester should strongly consider creating a Capital Budget and Program.

Policy Making for Change

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

Energy Efficient Purchasing policy – A policy of this nature would require energy efficiency to be considered when purchasing or planning for other town investments. For example, purchasing Energy Star rated equipment is a well-documented way to increase energy efficiency. Devices carrying the Energy Star logo, such as computer products and peripherals, kitchen appliances, buildings and other products, generally use 20%–30% less energy than required by federal standards.

Staff Policies - Towns can also implement policies that are designed to reduce wasteful energy practices. For example, the Town of Rochester could create a policy requiring that town vehicles (such as dump trucks and other road maintenance equipment) not idle for more than a set period of time. Idling is an expensive waste of fuel, and a policy such as this could lead to substantial savings in money spent on fuel by the town.

Through policy making, local government can set a clear example for townspeople and encourage sustainable behavior that will ultimately result in both energy and financial savings. Please see the goals, policies, and recommendations section (F, below) for more ideas.

H. Energy and Land Use Policy

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

Zoning bylaws control the type and density of development. It is important to acknowledge connection between land use, transportation and energy and seek to create zoning ordinances and subdivision regulations that encourage energy efficiency and conservation. Encouraging high density and diverse uses in and around existing built-up areas will lead to more compact settlement patterns, thereby minimizing travel requirements. At the same time, zoning bylaws must be flexible enough to recognize and allow for the emergence of technological advancements which encourage decreased energy consumption.

Rochester’s zoning bylaws contain provisions for planned unit developments (PUDs). PUDs are a grouping of mixed use or residential structures, pre-planned and developed on a single parcel of land. The setback frontage and density requirements of the zoning district may be varied, to allow creative and energy efficient design (i.e. east-west orientation of roads to encourage southern exposure of structures, solar access protection, use of land forms or vegetation for wind breaks, and attached structures), and to encourage the construction of energy efficient buildings.

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

I. Energy and Transportation Policy

It is important that communities recognize the clear connection between land use patterns, transportation and energy use. Most communities encourage the development of residences in rural areas, and these are in fact coveted locations to develop because of the aesthetics that make Vermont special. However, this rural development requires most of our population to drive to reach schools, work and services.

Because transportation is such a substantial portion of local energy use, it is in the interest of the community to encourage any new developments that are proposed in Rochester to locate adjacent to existing roads. Dense residential developments should be located within or adjacent to existing village centers or within designated growth areas.

J. Goals, Policies and Recommendations

Goals

1. To ensure the long-term availability of safe, reliable and affordable energy supplies, to increase energy efficiency, and to promote the development of renewable energy resources and facilities in the Town of Rochester to meet the energy needs of the community and region.
2. To reduce:

    - energy costs;
    - the community's reliance on fossil fuels and foreign oil supplies;
    - and greenhouse gas emissions that contribute to climate change.

3. To identify and limit the adverse impacts of energy development and use on:

    - public health;
    - safety and welfare;
    - the town's historic and planned pattern of development;
    - environmentally sensitive areas;
    - and our most highly valued natural, cultural and scenic resources,

4. To encourage a continued pattern of settlement and land use that is energy efficient.
5. To promote the construction of energy efficient residential and commercial buildings and increase awareness and use of energy conservation practices through educational outreach to the public.

6. To increase public transportation opportunities throughout the community, including park-and-ride access, bus service, biking paths, and sidewalks.
7. To promote greater use of existing public transportation services by community members.

Policies

1. Town officials will actively support partnerships, strategies, and state and federal legislation that will ensure the affordable, reliable and sustainable production and delivery of electrical power to the region, in conformance with regional and municipal goals and objectives.
2. Town officials will participate in the Public Service Board's review of new and expanded generation and transmission facilities to ensure that local energy, resource conservation and development objectives are identified and considered in future utility development.
3. Any commercial energy generation facility proposed in Rochester must be developed to avoid negative impacts on the rural character of the surrounding area. Developers should make all possible efforts to minimize damage to important natural areas as identified in the Natural Resource section of this Town Plan. Additionally, such facilities should be located as close to existing roads as possible to avoid any increase in the services provided by the town.
4. Developments that are proposed under Act 250 must include measures to reduce energy consumption through site and building design, materials selection and the use of energy-efficient lighting, heating, venting and air conditioning systems.
5. Rochester supports the development and use of renewable energy resources – including but not limited to wind, solar, micro hydro and cogeneration – at a scale that is:

    - Sustainable;
    - enhances energy system capacity and security;
    - that promotes cleaner, more affordable energy technologies;
    - that increases the energy options available locally;
    - that avoids undue adverse impacts of energy development on the local community and environment.
6. Town officials will support efforts to educate homeowners about what resources are available to them for energy efficiency improvements.
7. The rehabilitation or the development of new buildings and equipment should use proven design principles and practices with the lowest lifecycle costs (cost of owning, operating, maintaining, and disposing of a building or a building system over a period of time).
8. It is the policy of the Town that generation, transmission, and distribution facilities or service areas shall be encouraged only when they complement the recommended land use patterns set forth in this plan.
9. It is the policy of the Town that new significant public investments (including schools, public recreational areas, municipal facilities, and major commercial or residential developments) should be located within or near the village and shall utilize existing roads whenever possible.
10. It is the policy of the Town to encourage the extension of broadband services to all residences, and support energy efficient, small-scale home businesses.

Recommendations

1. Town officials and volunteers should work to increase public awareness and use of energy conservation practices, energy-efficient products and efficiency and weatherization programs through educational efforts aimed at residents and businesses.
2. The Town should support community-based renewable energy generation, to include municipal or district biomass heating systems, and the installation of individual or group net metered generation facilities on town buildings and property to serve town facilities.
3. An Energy Committee could identify areas in town that are appropriate for renewable energy production such as wind, solar and micro hydro.
4. The Selectboard should appoint an Energy Committee to develop an Energy Action Plan as a supplement to the municipal plan, to more specifically quantify and track municipal energy consumption, and to recommend actions that the town and community should take to conserve energy, increase energy efficiency, promote local energy production from renewable resources, and to reduce energy costs and greenhouse gas emissions.
5. The Town should adopt a no-idling policy that specifically applies to municipal vehicles, such as the public works fleet, regardless of the vehicle's location. For more information go to www.idlefreevt.org.
6. The Town should implement a Capital Budget and Program which includes short and long-range plans for energy efficiency improvements to municipal buildings.
7. The Town should implement energy efficiency measures for existing and future facilities as opportunities arise, and incorporate priority efficiency improvements (e.g., facility retrofits, renovations, and equipment upgrades) in the town's capital budget and program.
8. The Town should develop facility maintenance and operation policies that maximize energy efficiency while maintaining comfort levels for employees and visitors, to include building temperature, heating and air conditioning guidelines, electrical equipment uses guidelines, interior and exterior lighting guidelines, and the use of energy management devices (e.g., sensors, timers). Examples include: installation of day-lighting tubes, programmable thermostats, occupancy light sensors, smart strips and energy star appliances.
9. The Town should assess and, if feasible, replace facility lighting with energy efficient compact fluorescent or LED bulbs and fixtures and, with the assistance of Efficiency Vermont and local utilities, evaluate options to improve the efficiency and reduce the costs of street, pedestrian, parking lot and public space lighting. Some of these options include the elimination of certain fixtures, the replacement of inefficient bulbs with more efficient ones, such as LEDs, and the utilization of lighting controls such as timers or light sensors.
10. The Town should develop municipal vehicle purchase, maintenance and use policies, including minimum fuel efficiency standards for new vehicles. An example of a maintenance policy would be: ensure that all municipal vehicles are up to date with tune ups and tire pressure checks to maximize fuel economy.
11. The Town shall consider the benefits and/or drawbacks of using regionally available alternative-fuels, such as biodiesel, in municipal vehicles.
12. The Rochester Selectboard should discuss the PACE program at a future meeting and decide whether the program should be placed on the ballot for Town Meeting.

XIII. Recreation

A. Background

The well-being of a community relies on many things, one of which is an opportunity to participate in outdoor recreation. As the population grows, more and more city and suburban dwellers are purchasing second homes or are renting in rural locations to vacation. As the finite land base is being developed, more pressure is being placed on the remaining open areas to provide outdoor recreation opportunities. The Vermont Outdoor Recreation Plan, completed in 2005, indicates a continuing deficit in the capacity of certain outdoor recreation resources.

Horseback riding, mountain bike riding, jogging and walking are all activities which continue to gain popularity. Some Bed and Breakfast establishments are promoting activities such as these as a "drawing card". In the last few years, improvements in the VAST (Vermont Association of Snow Travelers) corridor and secondary trail systems have connected local trails with the state-wide trail network. It is now possible to snowmobile from Rochester to anywhere in the State, from Island Pond in the Northeast Kingdom to Somerset in the south. Likewise, visitors from all over the State can now snowmobile to Rochester.

B. Publicly Owned Recreation Resources

Community owned - The Town of Rochester owns several parcels of land used for public recreation. Areas include the ball field, tennis courts, skating rink, the Park, the picnic area at Bean's Bridge which is currently being maintained by the Route 100 Lion's Club, school playground and structure and the school forest.

State owned - The State of Vermont owns 20+ acres on Mount Cushman, the site of the old fire tower. Another parcel is known as the Riley Bostwick Millionth Acre Tree Farm located off Bethel Mountain Road and the Riley Bostwick Wildlife Management Area (609+ acres).

Federally owned – 12,394 acres of federally owned land are in the Town of Rochester. These public lands are administered by USDA - Forest Service as part of the Green Mountain National Forest (GMNF). These lands provide a wide variety of outdoor recreational opportunities for residents and visitors alike. No matter whether your preference is for snowmobiling, cross-country skiing, bird watching, hiking or hunting, the National Forest provides those opportunities. The Forest Service has constructed parking facilities and recreational use areas along the White River. In 2006, the US Congress established the Battell Wilderness Area, approximately 4000 acres of which are in Rochester.

Public and Private Recreational Attractions

- Camping
- Mountain Biking
- Cross Country Skiing

- Farm Vacations at B & B's.
- National Forest Campground at Chittenden Brook
- National Forest White River Travelway Sites
- Hunting and Fishing
- Golf Course
- Verde Antique Marble Quarry
- Viewing Maple Syrup Production
- Hiking and Snowmobile Trails
- Canoeing and Tubing
- Horseback Riding
- Ice Skating

C. Recreation and the Local Economy

Outdoor recreation is a key element of Vermont's economy, generating roughly $2.5 billion a year in retail sales and services throughout the state. Recreation-seeking tourists spend money. In "a National Survey of the Vermont Visitor", the University of Vermont business school determined that visiting hunters and fishermen spend more than $2000 per trip. Hikers and campers spend $440 per trip.

The Outdoor Industry Foundation reports that Vermont's population are regular participants in outdoor recreation as well. These include:

- Wildlife viewing: 54%
- Hiking: 33%
- Biking: 29%
- Skiing, snowboarding and snowshoeing: 25%
- Camping: 21%
- Fishing: 18%
- Hunting: 14%

Rochester's extensive acreage of publicly owned recreational resources allows residents and visitors a broad range of recreational opportunities including fishing, hunting, snowmobiling, hiking, cross-country skiing, etc. These recreational pursuits have the potential to provide Rochester with a commercial market that helps feed the local economy. Additionally, the White River offers excellent opportunities for recreation.

The way land is used in the community has an influence on recreation. Rochester should continue to maintain a pattern of development in the more rural areas of town that is low density, allowing for larger amounts of open land and reducing the possibility of having large land areas broken up for development. This Plan encourages outdoor recreation as a valuable commercial use in Rochester and seeks to maintain and enhance recreational opportunities for residents and tourists alike.

D. Forest Service

Rochester maintains a partnership with the U.S. Forest Service, working together on various projects. The GMNF represents an asset to the community. In addition to recreation, the Forest Service provides funding for maintenance and improvements on several local roads that service their land.

E. Goals, Policies and Recommendations

Goal

1. To enhance and maintain public access to recreation for Rochester's residents and visitors alike.

Policy

1. It is the policy of the Town to maintain a pattern of development that supports and maintains access to public recreation.

2. It is the policy of the town to continue its working relationship with the Green Mountain National Forest.

XIV. Flood Resilience

A. Background

Following the impact of Tropical Storm Irene in 2011, the Vermont Legislature added a requirement that all communities address flood resilience as part of their municipal plans. Interpreted broadly, "resilience" means that an entity—a person, neighborhood, town, state, region or society— when faced with a situation or event, could effectively return to its previous state or adapt to change(s) resulting from the situation or event without undue strain. As such, "resilience" is an overall preparedness for a future event. For the purposes of this chapter, flood resilience will mean the ability of Rochester to effectively understand, plan for, resist, manage and, in a timely manner, recover from flooding.

Types of Flooding

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

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

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

Causes of Flooding

Severe storms with particularly heavy precipitation can create flash flood conditions. However, over an extended period of time, severe storms may cause inundation flooding due to the cumulative effects of continuous rain, saturated soils, and a high-water table/high aquifer levels.

Floodplains and river corridors fill an important need, as flood waters and erosive energy must go somewhere. Development in the floodplain can lead to property damage and risks to health and safety. Development in one area of the floodplain or river corridor can also cause increased risks to other areas by

diverting flood flows or flood energy. Debris carried by the floodwater from one place to another also poses a danger. Flooding is worsened by land uses that create impervious surfaces that lead to faster runoff, and past stream modifications that have straightened or dredged channels, creating channel instability.

Historic Flood Events

One of the worst flood disasters to hit the Town of Rochester, as well as the overarching region and the State of Vermont, occurred on November 3, 1927. This event was caused by up to 10 inches of heavy rain from the remnants of a tropical storm that fell on frozen ground. A more recent flood event that devastated the region and the state was the result of Tropical Storm Irene, which occurred on August 28, 2011. Record flooding was reported across the state and was responsible for several deaths, as well as hundreds of millions of dollars of home, road, and infrastructure damage. Due to the strong winds, some in an excess of 60 mph, 50,000 Vermont residents were initially without power, and many did not have electricity restored to their homes and businesses for over a week.

Tropical Storm Irene caused widespread damage to property and infrastructure in the Town of Rochester due to an estimated 9 inches of rain that fell during the storm, some of the highest precipitation totals in Windsor County. It is thought that the flooding that occurred because of Tropical Storm Irene was close to or equal to a 500-year flood, or a flood that has a .2% chance of occurring every year. Much of Rochester's road infrastructure was damaged by the storm, including Little Hollow Road, North Hollow Road, Brook Street, Fiske Road, Marsh Brook Road, Bethel Mountain Road, and Bingo Road. The county-wide damage for Orange County totaled $32.5 million. The storm damage for Rochester totaled $3 million according to FEMA's public assistance database, which captures at least 70% of the total damage.

B. Flood Hazard and River Corridor Areas in Town

Flood Hazard and River Corridor Areas

There are two sets of official maps that govern development in floodplains in Vermont. They are the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRMs) and VT Agency of Natural Resource's River Corridor area maps. The FIRMs show the floodplain that FEMA has calculated would be covered by water in a 1% chance annual inundation event also referred to as the "100-year flood" or base flood. This area of inundation is called the Special Flood Hazard Area (SFHA). FIRMs may also show expected base flood elevations (BFEs) and floodways (smaller areas that carry more current). FIRMS are only prepared for larger streams and rivers. Rochester has FEMA FIRM maps that are used in the administration of their Flood Hazard Bylaw administration. FEMA FIRM Maps were last updated for the Town of Rochester on September 28, 2007. No Flood Insurance Studies (FIS) was completed for Rochester on September 28, 2007. FEMA FIRM Maps are available for the Main Branch of the White River, the West Branch of the White River, Brandon Brook, Corporation Brook, and Bingo Brook. Rochester contains 890 acres of floodplain, 424 of which are in the floodway.

Recent studies have shown that a significant portion of flood damage in Vermont occurs outside of the FEMA mapped areas along smaller upland streams, as well as along road drainage systems that fail to convey the amount of water they are receiving. Since FEMA maps are only concerned with inundation, and these other areas are at risk from flash flooding and erosion, these areas are often not recognized as

being flood-prone. It should be noted that small, mountainous streams may not be mapped by FEMA in NFIP FIRMs (Flood Insurance Rate Maps), flooding along these streams is possible, and such flooding should be expected and planned for. Property owners in such areas outside of SFHAs are not required to have flood insurance. Flash flooding in these reaches can be extremely erosive, causing damage to road infrastructure, threatening topographic features including stream beds and the sides of hills and mountains, and creating landslide risk. The presence of undersized or blocked culverts can lead to further erosion and streambank/mountainside undercutting. Change in these areas may be gradual or sudden.

Furthermore, precipitation trend analyses suggest that intense, local storms are occurring more frequently. Vermont ANR's River Corridor maps show the areas that may be prone to flash flooding or erosion, which may be inside of FEMA-mapped areas, or extend outside of these areas. In these areas, the lateral movement of the river and the associated erosion is a greater threat than inundation by floodwaters. The ANR mapped River Corridors accurately represent the area where rivers and streams will move over time to meander, and they depict areas that are at risk to erosion due to the river or streams' lateral movement. Elevation or floodproofing alone may not be protective in these areas as erosion can undermine structures. Rivers, streams, and brooks that have mapped River Corridors include Marshes Brook as well as the Main Stem of the White River, the West Branch of the White River, Brandon Brook, Corporation Brook, and Bingo Brook that have mapped special flood hazard areas.

In the Town and Village of Rochester, 22 total structures reside in the special flood hazard area, meaning they have 1% of flooding every year. These structures consist of 7 single family dwellings, 5 camps, 1 mobile home, 6 commercial structures, the town garage, 1 oil and gas facility, and 1 multi-family dwelling. If all the structures in the Special Flood Hazard Area were damage or destroyed in a flooding event, the damage would total approximately $4,998,774.

Additionally, there are 46 structures that reside within the mapped River Corridor. These consist of 24 single-family dwellings, 10 camps, 5 commercial structures, 3 multi-family dwellings, 1 pump station, 1 oil/gas facility, 1 fire station, and 1 campground. If these structures were damaged and destroyed, the damage would total approximately $10,451,982. To help reduce the risk to health, structures, and road infrastructure, it is important to restore and improve the flood storage capacity of existing floodplains and to increase the overall area for retention of floodwaters in Rochester.

Flood Hazard Regulations

The Town of Rochester has a Flood Hazard Bylaw that was adopted on September 28, 2009. The Flood Hazard Bylaw applies to all lands in the Town of Rochester, and specifically aims to regulate development of lands in the Special Flood Hazard Area, or the areas near rivers, streams, and brooks, that have a 1% chance of flooding annually. The River Corridor Area is not subject to specific regulatory conditions in the Town and of Rochester Flood Hazard Area Bylaw.

National Flood Insurance Program (NFIP)

Under the provisions of the National Flood Insurance Act (1968), the Federal Emergency Management Agency (FEMA) has conducted a series of evaluations and hydrologic engineering studies to determine the limits of flood hazard areas along streams, rivers, lakes, and ponds expected to be inundated during the 100-year base flood, meaning that the flood level has a 1% chance of being equaled or exceeded in

any given year. The calculations do not consider the impact of ice dams or debris, and may, therefore, underestimate the areas which are subject to flooding damage.

FEMA has prepared a Flood Hazard Boundary Map for the Town of Rochester, which includes flood hazard areas for the Main Stem of the White River, the West Branch of the White River, Brandon Brook, Corporation Brook, and Bingo Brook. This map is on file at the Town Office and at the Two Rivers-Ottauquechee Regional Commission. It can also be found online through FEMA's website and the Vermont Agency of Natural Resources. Contact the Rochester Town Clerk to determine if a proposed development is in the Flood Hazard Area.

FEMA also administers the National Flood Insurance Program, which provides flood hazard insurance at subsidized rates for property owners in affected areas. To qualify for federal insurance, towns must adopt and retain a bylaw to control land development within these areas. Minimum standards must be included and approved by FEMA. Coverage is only available to landowners if a town elects to participate in the program. The Town of Rochester incorporates Flood Hazard regulations as part of its Flood Hazard Bylaw, and is recognized as a participating community in the National Flood Insurance Program, which it has been enrolled in since August 5, 1991.

C. Promoting Flood Resilience

Flood Hazard Regulation

The following changes to the Flood Hazard Bylaw would help protect the citizens of Rochester from further damages from a severe flooding event:

1. Discourage all new development in the Special Flood Hazard Area, which is also called the 100-year floodplain, or the area that has a 1% chance of flooding every year.

2. Require the elevation of existing structures in the Special Flood Hazard Area to be elevated 2 feet above base flood elevation.

3. The prohibition on new development would not apply to small out-buildings or similar structures provided they are properly flood-proofed and meet the thresholds required by the National Flood Insurance Program for flood hazard regulation. The prohibition would not apply to renovations to existing structures unless the proposed renovations expand the footprint of the existing building or exceed the substantial improvement thresholds required by the National Flood Insurance Program for flood hazard regulation.

4. The best and most appropriate uses within the Flood Hazard Area along rivers and streams are those that are recreational and agricultural (using Required Agricultural Practices). Minimizing development within these areas will help protect both public and private investments as well as the natural and scenic quality of Rochester's waterways.

5. Discourage new development in the mapped River Corridor Area.

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

Non-regulatory approaches

Easements
Rochester could pursue riparian easements to protect floodplain from development and preserve flood storage.

Culvert Maintenance
Rochester maintains an up-to-date list of culverts and culvert condition, and completed a comprehensive culvert inventory in summer 2016. As part of this process, priority projects were identified, and cost estimates were generated to prioritize culvert upgrades for damaged and undersized structures. Vermont Agency of Transportation Codes and Standards, which the Town of Rochester adopted on March 11, 2013, require a minimum size of 18 inches for new culverts. The process of upgrading culverts is ongoing underway.

D. Goals, Policies, and Recommendations

Goal:

1. Maintain and improve the quality of Rochester's surface and ground waters.

2. Enhance and maintain use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land.

3. Ensure no net loss of flood storage capacity to minimize potential negative impacts. These impacts include the loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.

4. Allow Rochester to be resilient in the event of a severe flood.

5. Protect municipal infrastructure and buildings from the potential of flood damage.

Policies

1. Use sound planning practices to address flood risks so that Rochester's citizens, property, economy, and the quality of the town's rivers as natural and recreational resources are protected.

2. Rochester prohibits all new fill and construction of buildings in mapped floodways (*Mapped areas, unless corrected by FEMA).*

3. Limit permitted land uses within Rochester's River Corridor Areas to non-structural outdoor recreational and agricultural uses due to the dangerous erosive risk in these areas.

4. Prohibit commercial, industrial, and residential uses within ANR's mapped river corridor areas outside of designated village areas. New development within designated village areas should not be closer than current structures.

5. Move or abandon roads that often experience serious flood damage.

6. Design culverts and bridges, at minimum, to meet VTrans Hydraulics Manual, ANR Stream Alteration Standards, VTrans Codes and Standards. Maintain culverts to ensure they are effective during severe weather events.

7. Do not build Rochester's emergency services, power substations, and municipal buildings in the Special Flood Hazard or River Corridor Areas.

8. Rochester will maintain vegetated buffer strips in riparian zones bordering streams and rivers. Rock rip-rap and retaining walls should only be used to the minimum extent necessary and when bioengineering techniques may not be adequate to prevent significant loss of land or property.

9. Maintain Rochester's upland forests and watersheds predominately in forest use to ensure high quality valley streams and to ensure that flood flows reduced.

10. All wetlands which provide flood storage functions shall remain undeveloped. In the long term, restoration and enhancement of additional wetlands should be pursued to improve Rochester's flood resilience.

11. After flood events, recovery and reconstruction within the river area should be managed according to the Vermont River Program's best practices to avoid negative impacts downstream.

Recommendations

1. Revise Rochester's Flood regulations to prohibit new development in the 100-year floodplain (excluding small ancillary structures).

2. All substantial improvements to structures should be elevated 2 feet above base flood elevation (BFE).

3. Rochester should work with VTrans and the Regional Planning Commission on advocating for and improving the flood capabilities of state or town-owned transportation infrastructure.

4. Rochester should continue working to update hazard mitigation plans and emergency preparedness and recovery procedures.

5. The Selectboard should continue to send a representative to regularly attend and participate in the region's Local Emergency Planning Committee (LEPC #12).

6. The town should continue to maintain and update town bridge and culvert inventories. This information should be used to develop a schedule to replace undersized culverts.

XV. Natural, Scenic and Cultural Resources

A. Background

The rural landscape is of the utmost importance to the Rochester community, both for its utility and its scenic value. Rochester residents value open, working lands that are hospitable to both recreation and outdoor work. It is essential to the community that this landscape be protected as it is the fundamental reason why residents choose to live in Rochester. Residents want to maintain the quality of their landscape for the future, to protect the natural world they value, while allowing the land to be worked safely and harmoniously.

Goals

1. To protect the natural, scenic and historic character of Rochester.

2. To maintain the quality of the landscape for the future, to protect the natural world, while allowing the land to be worked safely, harmoniously and sustainably.

Policy

1. It is the policy of the town to protect the natural, scenic and historic character of Rochester's working landscape, through careful land use planning.

B. Air Quality

Air quality is an important feature in our overall quality of life. Clean air contributes to our health and to clear skies and extended views. Rochester is heavily forested with limited development, but air quality can be affected from vehicle emissions, heating sources, backyard burning, and dust from construction projects.

C. Water Resources

Water resources include aquifers (the supply of fresh water beneath the ground) and surface waters (includes streams, ponds and lakes). Sustainable yields of quality water are necessary for the lives and livelihood of citizens of Rochester. Rochester has no mapped groundwater information.

The process for mapping groundwater is complicated. It involves multiple scientific methods including using technology to create a detailed picture of groundwater situations and use patterns, analysis of well data provided to the state by well drillers and site-specific analysis. Unfortunately, there is no easy method.

The Vermont Agency of Natural Resources, in cooperation with federal and other state agencies, has evaluated aquifer recharge areas serving systems involving 10 or more connections or 25 or more people. These recharge areas are acknowledged and are recognized as important for protection. Land developments that are potential threats to water quality and significant aquifers are discouraged from

locating in these areas. Rochester has a well system that provides water to the village. The primary well is located south of the village in the aquifer recharge district. The 15-acre area surrounding it has been designated a "well-head protection area".

The White River, West Branch, Bingo Brook, Brandon Brook and numerous other tributaries continue to provide excellent fishing opportunities for Brook and Rainbow trout. The Forest Service has purchased land and/or easements for public access to many areas of the White River.

Rochester is fortunate to have a non-profit organization in Town that focuses on the protection of the White River watershed. The White River Partnership started in 1995 with a group of local citizens interested in preserving the quality of life in the White River Watershed. A grass-roots organization, the Partnership promotes the cultural, economic, and environmental health of the watershed through active citizen participation. The Partnership is committed to developing a diverse membership to assure a balanced approach to addressing the challenges facing the watershed, incorporating the best of traditional thinking and practice with current research and technology.

The health of Rochester's surface waters is essential to maintaining quality groundwater, as well as an important element for outdoor recreation and natural beauty. There are many state and federal programs that help fund stream-management projects, such as the Conservation Reserve Enhancement Program (CREP). CREP provides funds to farmers for preserving lands once used for agriculture, with the goal of introducing and encouraging plant life to prevent erosion and provide habitat. Stream instability can lead to excessive flooding and other types of damage due to increased flow velocity.

Riparian buffers are strips of bankside vegetation along waterways that provide a transition zone between water and land use. Construction or development along shorelines, or removal or disruption of vegetation within these areas can create increased water pollution, higher water temperatures, destabilization of banks, higher soil erosion rates and loss of fish or wildlife habitats. The Plan maintains that no structures shall be allowed within 50 feet of the top of the bank of designated permanent streams, except those that by their nature must be located near streams (hydro facilities, for example). No ground disturbance or removal of vegetation shall be allowed within 35 feet, apart from bridge or culvert construction, or bank stabilization as is necessary for hazard mitigation purposes. These setback restrictions may be changed based on Planning Commission review of recent flood hazard events. Damages from Tropical Storm Irene have indicated a need for larger stream buffers, particularly in areas outside of the Flood Hazard Area.

Goals

1. To maintain or enhance the quality and quantity of drinking-quality resources.

2. To allow use of groundwater resources by new development in such a manner to protect the public right to adequate quality and quantity of the resource.

3. To consider surface water and groundwater impacts and effects related to proposed or existing uses of land.

4. To maintain or improve surface water quality and quantity.

Policies

1. It is the policy of the Town that land use activities which potentially threaten groundwater quality must be carefully reviewed and monitored to prevent undue loss of groundwater quality.

2. It is the policy of the Town that the maintenance or enhancement of water resources for recreation, fisheries, necessary wildlife habitats and quality aesthetics be high priorities.

3. It is the policy of the Town that preservation of the natural state of streams should be encouraged by,

    - Protection of adjacent wetlands and natural areas;
    - Protection of natural scenic qualities; and
    - Maintenance of existing stream bank and buffer vegetation including trees, together with wildlife habitat.

4. It is the policy of the Town that no structures shall be allowed within 50 feet of the top of the bank of designated permanent streams, except those that by their nature must be located near streams. No ground disturbance or removal of vegetation is allowed within 35 feet, excepting that incidental to bridge or culvert construction, or permitted bank stabilization.

5. It is the policy of the Town that development in Rochester shall be permitted only if it does not cause any significant environmental degradation and does not result in the pollution of ground or surface waters or cause unreasonable reductions in supply.

6. It is the policy of the Town that no development of any kind which is potentially detrimental to water quality shall be allowed adjacent to any brook, stream or tributary or in a well head recharge area.

7. It is the policy of the Town that all proposed development must be reviewed for appropriate location away from brooks, streams, tributaries and well head recharge areas and for adequate protection of the recharge environment of these resources.

8. It is the policy of the Town to monitor all large water withdrawals in the regional area that have a potential to affect the private water sources of Rochester residents and enter negotiations with the withdrawer of large quantities of water to protect resident water supplies if necessary.

9. Support state and federal programs directed at the reduction of air pollution and encourage enforcement of air-quality standards to prevent deterioration of the region’s air quality.

Recommendation

1. The Planning Commission should amend the Rochester Zoning Regulations to include stream buffer requirements that require setbacks and limitations on development immediately adjacent to streams.

D. Wetlands

Wetlands are ecologically fragile areas and how these lands are managed have a direct bearing on the quality and quantity of water resources. In addition to being Vermont's most productive ecosystem, wetlands serve a wide variety of functions beneficial to the health, safety and welfare of the public, including the following:

- Retaining storm water run-off, reducing flood peaks and thereby reducing flooding;
- Improving surface water quality through storage of organic materials, chemical decomposition and filtration of sediments and other matter from surface water;
- Providing spawning, feeding and general habitat for fish;
- Providing habitat for a wide diversity of wildlife and rare, threatened or endangered plants; and
- Contributing to the open space character and the overall beauty of the rural landscape.

Rochester's most significant wetlands have been mapped and are included as part of the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service. These wetlands have been delineated on USGS topographic maps, and by reference are made a part of this Plan (see Map 5, Natural Resources). Other smaller wetlands often do not show on these maps, so a field determination by a qualified biologist is needed for most activities that involve state permits. There are approximately 463 acres of mapped wetlands in Rochester.

In those towns such as Rochester, that have zoning or subdivision regulations, final approvals cannot be granted for projects involving wetlands unless the Agency of Natural Resources has first had an opportunity to evaluate the effect of the project on the wetland [24 V.S.A., Section 4409]. It is important to note that future investigations of wetlands within Rochester may result in additional areas being determined as significant or important for conservation. Setback requirements for wetlands vary as required by ANR staff, but communities can set more stringent requirements.

Goal

1. To identify and encourage land use development practices that avoid or mitigate adverse impacts on significant wetlands.

Policies

1. It is the policy of the Town to abide and adhere to state wetlands regulations.
2. It is the policy of the Town that structural development or intensive land uses shall not be located in significant wetlands.

3. It is the policy of the Town that development adjacent to wetlands should be planned so as not to result in undue disturbance to wetland areas or their function. Mitigating measures to protect the function of a wetland are an acceptable measure.

Recommendations

1. The Planning Commission should consider creating buffer rules for wetlands.

E. Flood plains

It is in the public interest to plan for floods, and to implement land use strategies which will protect these areas and minimize the risks to public health, safety, and property.

Floodplains, lands adjacent to watercourses (streams, brooks or rivers), are periodically inundated by heavy rains or during spring thaws. They are porous and can absorb considerable water before reaching flood stage. Floodplains make excellent agricultural land but are poorly suited for development, both because of their propensity for flooding and because of their proximity to watercourses, which creates the potential for pollution. Approximately 1050 acres in Rochester are within the floodplain area, which is 3% of the total land in the community.

Vermont has experienced fifteen statewide and regional floods since 1973. All but one of these were declared federal disasters, and economic losses were significant. Damage was not limited to designated floodplains, but often occurred along unstable river systems and steep streams, and in areas where stream debris was excessive. In some cases, recovery costs to the Town of Rochester alone amounted to several million dollars per flooding event. Public interest dictates that every reasonable attempt should be made to avoid or reduce such exposure to flood damage.

National Flood Insurance Program (NFIP)

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

FEMA has prepared a Flood Hazard Boundary Map for the Town of Rochester, which includes flood hazard areas for the Main Stem of the White River and for major streams and ponds. This map is on file at the Town Office and at the Regional Commission. The Flood Hazard Area is indicated in Map #2, Future Land Use. If in doubt when developing, contact the Rochester Zoning Administrator.

FEMA also administers the National Flood Insurance Program, which provides flood hazard insurance at subsidized rates for property owners in affected areas. To qualify for federal insurance, towns must adopt and retain a by-law to control land development within these areas. Minimum standards must be included and approved by FEMA. Coverage is only available to landowners in town if a town elects to participate in the program. The Town of Rochester incorporates Flood Hazard regulations as part of its Zoning Bylaw, and is recognized as a participating community in the National Flood Insurance Program.

Two Rivers-Ottauquechee Regional Commission has determined that approximately 27 structures (including 17 houses and 9 businesses) have been identified as being located within the mapped flood hazard areas. Mortgage lending institutions require as a prerequisite to financing that flood insurance be purchased on property subject to flooding. Because of the potential for severe damage to public health and safety, Rochester maintains that no new primary structures shall be developed in the FEMA Floodplain. Other structures, such as accessory structures, are allowed but only if they are properly flood-proofed and do not raise the existing flood level more than one foot.

Fluvial Erosion Hazards

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

Historically, landowners and local government have relied on the standards and the flood hazard boundary maps provided by FEMA through the National Flood Insurance Program (NFIP) to determine areas within river corridors susceptible to flood damage. The maps are also used to delineate the allowable (floodway) limits of river corridor encroachments and human land use investments. However, the NFIP maps address only inundation issues by applying a water surface elevation based standard. For this reason, the NFIP maps are often inadequate as an indicator of flood hazards, especially erosion. The NFIP standards do not recognize the danger present in unstable channels which may be undergoing a physical adjustment process. The stream bed may be eroding, or it may be actively aggrading due to erosion occurring upstream.

The NFIP standards often allow for significant encroachment within floodplain areas and river corridors that may prevent the stream from ever reestablishing its stability. Special mapping and geomorphic assessments can identify FEH areas along rivers, more comprehensively defining high-hazard areas. The Main Stem of the White River has mapped fluvial erosion hazard (also called River Corridor Area) data.

This area is not subject to specific regulatory conditions in the Rochester Zoning Bylaw, but the Planning Commission could adopt new language that protects development against fluvial erosion hazards.

Severe Flooding Events

In 2011, Vermont was struck by Tropical Storm Irene, which inundated the region with heavy rains and severe flooding. Regional damage was severe enough to warrant a federal disaster declaration. In Rochester, significant impacts were felt throughout town (see chapter III, Irene).

Surprisingly, a significant portion of the impact of Irene's inundation was not in the area mapped by FEMA as flood plain or fluvial erosion hazard areas. Instead, the flood waters did substantial damage along Nason Brook, Rogers Brook, Breakneck Brook, Brook St. Brook and Cold Brook. Stream valleys are common locations for rural roads, and as such, much of the damage that occurred in Rochester was to roads. This is not to say that there was little damage along the Main Stem of the White River. As is discussed in chapter III, the inundation and flood damage caused along the White River was also quite severe.

The impact of Irene on Rochester has brought to light the need to consider more substantial and stringent regulation on development within the Flood Hazard Area. The devastation caused by Irene within the Flood Hazard Area (FHA) and outside the FHA in fluvial erosion hazard areas has made it clear that development in these areas carries high risk. When surveyed by the Planning Commission in 2012, 70% of the responses indicated that current regulations should be more stringent to enhance flood safety. Nearly 60% of the respondents felt that development within the floodplain should be prohibited altogether.

This disparity between the mapped areas of potential flood hazard and areas that were damaged during Tropical Storm Irene highlights the need for additional restrictions on development near streams. Rochester's current policy does not establish a stream buffer.

Goals

1. To enhance and maintain use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land.

2. To ensure no net loss of flood storage capacity to minimize potential negative impacts. These impacts include the loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.

3. To maintain maps that reflect as accurately as possible the flood hazard areas to assist in appropriate land use decisions.

Policies

1. It is the policy of the Town that the preferred uses for flood hazard areas shall be for open space, greenbelts, and non-commercial recreational or agricultural uses.

2. It is the policy of the Town that any land use activity (filling, or removal of earth or rock) within flood hazard areas which would result in net loss of flood storage or increased or diverted flood levels or increased risk to adjacent areas shall be prohibited.

3. It is the policy of the Town that utilities or facilities serving existing development (e.g. water lines, electrical service, waste disposal systems, roads, and bridges) may be located within these areas only when off-site options are not feasible and provided that these utilities or facilities meet the flood proofing requirements in Rochester's Zoning Bylaw.

4. It is the policy of the Town to maintain its membership in the National Flood Insurance Program.

Recommendations

1. The Planning Commission may want to consider increasing the setback requirement for developments adjacent to streams to protect against flooding and erosion in areas that are not in the mapped floodplain.

2. The Planning Commission should consider limiting new development within the floodplain to include only recreational and agricultural uses.

F. Flora, Fauna and Natural Communities

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

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

Wintering areas are an important habitat requirement for deer during the critical winter months when snow depth and climate are limiting factors to survival. Typically, these areas consist of mature softwood stands, at low elevations or along stream beds, which provide cover and limit snow depths. Southerly facing slopes are also beneficial due to good sun exposure and may be utilized even in areas of limited softwood cover. More specific factors, such as percent of canopy closure, species of softwoods, and stand age, also figure into the quality of the wintering area. Rochester has more than 3569 acres (10% of Rochester's total acreage) of deer wintering yards.

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

To help mitigate the effects of human population growth and land consumption, many scientists and conservationists urge governments to establish protected corridors, which connect patches of important wildlife habitat. These corridors, if planned correctly, allow wildlife to move between habitats and allow individual animals to move between groups, helping to restore or maintain genetic diversity that is essential both to the long-term viability of populations and to the restoration of functional ecosystems. Because of its generally low density and the percentage of preserved forestland (Green Mountain National Forest) in town, Rochester maintains a substantial amount of good quality wildlife habitat.

Goals

1. To sustain the natural diversity of flora and fauna found in Rochester.

2. To maintain or improve the natural diversity, populations, and migratory routes of native fish.

Policies

3. It is the policy of the Town that native wildlife populations and natural diversity should be sustained and enhanced.

4. It is the policy of the Town that long-term protection of critical habitats through conservation easements, land purchases, leases and other incentives be encouraged.

5. It is the policy of the Town to protect deer wintering areas from development and other uses that adversely impact these areas.

6. It is the policy of the Town that development, other than isolated houses and camps, should be designed to preserve continuous areas of wildlife habitat whenever possible. Fragmentation of habitat is discouraged. Efforts should be made to maintain connecting links between such areas.

7. It is the policy of the Town that preference shall be given to development that utilizes existing roads and whenever possible preserves existing agricultural use.

Recommendation

1. The Planning Commission should consider amending the Rochester Zoning and Subdivision regulations to protect wildlife corridors.

G. Invasive Species

Invasive non-native species are a growing problem throughout Vermont. Invasive plants are defined as those exotic species that typically spread from disturbed areas into natural communities, but many of these species are also impacting yards, agricultural fields, and working forests. In Rochester the spread of invasives is negatively impacting the rural character of the town, reducing native plant populations and consequently affecting wildlife populations, creating economic impacts by dominating other plants in agricultural fields and inhibiting reproduction of trees in sugarbush areas and other forests, destroying the scenic quality of roadsides, reducing property values, and potentially posing health risks. At the present time, the greatest threats are posed by wild chervil (fields, roadsides and recently logged areas), Japanese knotweed (streams, rivers, roadsides, yards), and Japanese barberry (forests), but there are increasing threats throughout the region from garlic mustard, giant hogweed, and other invasives.

Some of these invasives, especially wild chervil and knotweed, have proliferated to such an extent that eradication from many sites is impossible, but there are still portions of the town that have not been infested. Diligence is necessary from town residents and employees to prevent the further spread of these species, and the introduction of new species that could pose more serious threats. For example, giant hogweed has been identified from several towns in Central Vermont. This Federally listed noxious weed produces a sap that, in combination with moisture and sunlight, can cause severe skin and eye irritation, painful blistering, permanent scarring and blindness.

One of the more common ways in which invasive species spread to new locations is when seeds or root segments are transported on vehicles, especially construction and logging machinery, mowers, etc. Best management practices have been identified for reducing the accidental spread of invasives including avoiding using fill from invaded sites, washing of equipment before leaving infected sites, stabilization of disturbed sites, timing of mowing, etc.

Goal

1. Reduce the impact of invasive species on agriculture and native ecosystems.

Policies

1. It is the policy of the Town that new occurrences of invasive species should be controlled to prevent further infestations.

Recommendations

1. Town employees and contractors should become familiar with the best management practices to prevent the accidental spread of invasives.

2. The town should work with the Upper White River Cooperative Weed Management Area to conduct workshops for town employees and residents on identification of invasives (to promote early detection) and control methods.

3. The town should consider developing criteria for new development projects that reduces the potential for new invasive plant infestations. (e.g., source of imported materials such as fill, hay bales, ornamental plantings, etc.)

4. The Town should time roadside mowing to minimize the spread of invasive species.

5. The Town should conduct an inventory of invasive species that can be used as baseline data to assess the future spread.

H. Mineral Resources

The use and management of Rochester's earth and mineral resources are matters of public good. Maintenance of sustainable quantities of gravel, sand, crushed rock, and other materials are essential for business development, as well as state and local highways. Despite this, public and private interests are oftentimes in conflict over use of the resource. It is in the interest of the Rochester business owners and residents to enable utilization of these resources when such uses do not significantly inhibit or conflict with other existing or planned land uses, or conflict with other stated goals in this Plan.

Goal

1. To support extraction and processing of mineral resources only where such activities are appropriately managed, and the public interest is clearly benefited. Any support shall be balanced against the need to maintain the rural character valued by the citizens of Rochester.

Policies

1. It is the policy of the Town to consider pollution, noise and vehicle traffic as part of the decision-making process when reviewing proposed gravel extraction projects.

2. It is the policy of the Town that mineral extraction and processing facilities shall be planned, constructed, and managed,

    - So as not to adversely impact existing or planned uses within the vicinity of the project site;

- To not significantly interfere with the function and safety of existing road systems serving the project site;
- To minimize any adverse effects on water quality, fish and wildlife habitats, viewsheds and adjacent land uses; and
- To reclaim and re-vegetate sites following extraction.
- To minimize noise impacts on adjacent uses including residential areas.
- To maintain the rural character of the Town.

I. Forestry and Farming

Forests cover the majority of Rochester and commercial forestry is a small part of the local economy. Forestry and farming together currently employ roughly 9% of Rochester's residents according to the 2005-2010 American Community Survey. As a key part of this Plan, residents recognize the value of Rochester's working landscape, and seek to maintain and encourage agricultural and forestry development in the community.

According to the 2007 Census of Agriculture, there are 20 full and 7 part-time farming operations in Rochester. The reality is that most of these farms are small, with only four indicating that they farm on 50 or more acres of land. Because of the limited number of larger farms, agriculture has a limited impact on the local economy. However, it has a more pronounced impact on the rural landscape. The open spaces available to the community for recreation and scenic beauty are only open because they are actively being worked.

The Plan encourages agriculture and forestry enterprises if they follow accepted agricultural and forestry management practices as outlined by the Secretary of Agriculture. Although Rochester does not have a substantial amount of large, commercial farms, there are several small "hobby farms" in the community. These farms produce such products as maple products, eggs, vegetables and meats on a small scale. Many of these goods are sold locally. The town also supports the development of locally-produced, value added products. Rochester does not have a farmer's market, but neighboring Randolph has a weekly outdoor farmer's market during the summer where local farms can sell their products. Additionally, many farms sell in farm stands located on their property.

Prime Agricultural Soils

Prime agricultural lands are an important component of Rochester. Rochester has a higher amount of prime ag soils than many other communities. There are 1400 acres of prime ag soils in Rochester. Prime Ag soils tend to be in river valleys along streams, but in Rochester they are also present in upland areas along North Hollow Rd. Maintaining these prime soils as farmland is important to the current and future viability of farming in Rochester. Farms provide open space for wildlife habitat, scenic views and a connection to the land that is hard to find in other places. They also help maintain the distinctive rural character of Rochester, which is based strongly in the working landscape.

Many landowners in Rochester have their land enrolled in the Use Value Appraisal Program which involves these properties in forest or farm management activities in exchange for a property tax benefit. Undeveloped forest land provides many benefits to Rochester including wildlife habitat, recreational opportunities, abundant clean water, and forest products.

Agriculture and Land Use Regulation

Land use regulation has a definite impact on farming. For example, a zoning ordinance that allows for large tracts of land to be sold for single-family residential purposes could conceivably help protect open space, but that open space might no longer be available for agricultural use without considerable forethought and design. The same ordinance calling for much smaller lot sizes (such as one acre) would, over time, lead to an incremental decrease in the amount of useable farmland.

Regulating development on agricultural soils is challenging, as land is often a farmer's primary source of capital. It is far more preferable to preserve the working landscape through non-regulatory means whenever possible. Through its Zoning Bylaw, Rochester is attempting to protect valuable farmland with varied lot sizes and uses that do not conflict with agricultural or forestry uses without posing an undue burden on farmers.

Goal

To strengthen and maintain the Town's agricultural and forest economies and to ensure continuance of Rochester's rural character.

Policies

1. It is the policy of the Town to avoid the fragmentation of valuable agricultural and forest lands by maintaining zoning that encourages development at a scale that protects the working landscape.

2. It is the policy of the Town to support efforts to preserve the working landscape through public and private means.

Recommendation

1. The Town should create a conservation fund that can be used to assist farmers with the purchase of development rights or conservation easements through a land trust.

2. The Planning Commission should consider decreasing density in more rural areas of Rochester to protect large areas of forest and agricultural lands.

J. Significant Natural and Historic Areas

While Rochester residents would agree that the entirety of the community is significant for its beauty and its rural landscape, there are several areas that represent the most significant places in town. These lands are what most residents agree make Rochester the place it is today. These areas include:

- **The Park**: Perhaps no other location in Rochester symbolizes the Town more than the Park. With its stately maple trees, bandstand, the Civil War monument and surrounded by beautiful old homes, the Park is the focal point of many community events.

- **Bethel Mt. Road**: There are scenic views from many locations along the road. It offers foreground views of the woodlands and pastures, and distant views of the valleys and mountains stretching from Killington Peak in the south to Mt. Ellen to the north.

- **Route 100/White River Corridor**: As Vermont Route 100 winds its way north through the valley, it parallels the White River, offering views of the village, farms and other open areas and the Green Mountain foothills. Route 100 has been recognized as one of Vermont's most scenic highways.

- **West Hill**: Located in the western part of Town, the West Hill offers the explorer a combination of woodland, cellar holes, old buildings, a cemetery, mountain streams and views of the main ridge of the Green Mountains.

- **The Hollows**: Little, North, Middle and South Hollow all offer spectacular scenery. Farms, forests, country lanes, mountains and streams, all the things that evoke the image of Vermont are in the Hollows.

- **Bingo**: Whether via auto, bicycle or cross-country skis, a trip along Bingo Brook offers beautiful views of the mountain streams in all seasons.

- **Pierce Hall**: Pierce Hall is a 100-year-old multi-purpose community center that has recently been renovated. It has a long history of public use.

- **Rochester Public Library**: The Rochester Public Library building was built in the late 1800's originally as a church. It was given to the library trustees in the early 1900's and has been actively used as a library since then. The building retains the original stained-glass windows from when it was a church.

In addition to the specific resources listed above, the Town of Rochester has numerous historic resources, both publicly and privately owned. A survey, conducted in 1973 by Vermont's Division for Historic Preservation, identified approximately 38 structures with historical significance. Twenty-five of these are located around the village Park. In addition, there are many other structures or sites of local significance.

K. Conservation Commission

Vermont statute enables communities to create a Conservation Commission (CC), a volunteer board that focuses specifically on the natural, scenic and cultural resources within a community. A CC may conduct inventories of natural resources, recommend the purchase of or the receipt of gifts of land to the Selectboard, assist the planning commission with natural resource planning and maintain a conservation fund.

The CC, at the discretion of the town, can manage a fund which is to be used to assist with the purchase or conservation of property with the intention of protecting natural resources and implementing the town plan. Any use of such a fund requires support from the Selectboard.

Rochester does not have a Conservation Commission currently.

L. Land Protection Strategies

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

- Preserving land by placing restrictions on its use, through such tools as conservation easements or mutual covenants.

- Transferring land to a conservation organization (such as the Vermont Land Trust) through donation.

- Selling or donating land with conditions attached, like deed restrictions or conditional transfers.

Rochester could become an active participant in land conservation through the creation of a conservation fund. This fund could be used to purchase land outright, or assist a land conservation organization with the purchase of a conservation easement. It is safe to assume that there will never be sufficient funding

for land protection strategies to acquire conservation easements or ownership for all the unprotected identified areas of value.

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

- **Overlay Districts** - The creation of overlay districts is the most common method of regulating specific areas for protecting cultural or natural resources. Overlay districts can be used to exclude development on or to impose resource protection or conservation standards within overlay areas. These districts can be used to protect many types of resources.

- **Resource Protection Districts** - protect resource and open space areas or resource-based uses such as farming, forestry, recreation from incompatible development.

- **Large Lot Zoning** - Large lot zoning refers to the designation of a very large minimum lot size within certain zoning districts to accommodate resource-based uses, such as farming or forestry, or to require a pattern of very scattered, low-density development to limit, for example, impervious surfaces and protect surface and groundwater quality.

- **Fixed Area & Sliding Scale** - Fixed area and sliding scale zoning are two zoning techniques (typically applied in association with subdivision regulations) that are used to differentiate allowed densities of development from district lot size requirements.

- **Conservation (Open Space) Subdivision Design** - Conservation or open space subdivision design is a subdivision design process wherein subdivisions are intentionally designed to protect rural character and open space.

Each of these methods has its own set of benefits and pitfalls and all of them should be thoroughly evaluated before they are implemented. However, there are many examples of successful regulatory land protection strategies in Vermont. The key to success is to ensure that the community on a whole supports the regulations.

M. Goals, Polices and Recommendations

Goals

1. To identify and protect those natural and historic resources that are unique to Rochester and make it special.

2. To preserve and protect Rochester's important cultural and natural resources for future generations.

3. To allow for reasonable development without sacrificing important cultural and natural resources.

Policies

1. It is the policy of the town to ensure careful review of all development projects to minimize the impact on Rochester's natural and cultural resources.

2. It is the policy of the Town to protect unique resources by careful planning.

3. It is the policy of the Town to encourage the working landscape for the sustainable use of forest and agricultural resources.

Recommendations

1. The Selectboard should consider creating a conservation commission.

2. The Selectboard should consider the creation of a conservation fund, to be administered by a Conservation Commission for the purposes of conserving naturally or culturally significant areas in Rochester.

XVI. Agriculture and Forestry

A. Background

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

B. Farm and Forest Land Issues

Land and Taxation

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

The old town roads in this area are fragile in their nature and not suited for the heavy loads of today. Although historically the towns roads have been used for logging, they could sustain significant damage in a short time if misused. Road maintenance is a major cost factor for town residents. It is advisable to review logging projects as to their impact on town roads.

Current Use Taxation

For farmland and forestland conservation to be successful, the pressures posed by the market value approach to taxation must be solved for both the landowner and municipality. One means to address this issue has been the Vermont Current Use Program administered by the State which sets the valuations on farm and forest land based on their productivity values rather than their development values.

The Current Use Program was established in 1980 with the primary objectives to keep Vermont's agricultural and forest land in production, to help preserve these lands and to achieve greater equity in property taxation. While there have been legislative changes in the Program, particularly in 1996 when the State turned the Program over to towns to finance, the overall philosophy remains largely unchanged. Statewide, enrollments and the number of parcels have increased steadily over the past few years and withdrawals from the Program limited, despite an inability for the State to fully fund the towns for loss of tax revenues.

Historic Decline in Farms

During the early to mid-1900's, Rochester had many more farms than it has today. It was not uncommon for these farms to be operated by multiple generations of a family during the early to mid-1900's, but in the 70's and 80's younger generations became less interested in farming. By the 1980's many of the farmers who followed in their parent's footsteps had reached their later years of life, making farming a challenge physically. This, coupled with the lack of a successor to take over the farm also led to the closing of some farms.

Farms of the early to mid-1900's were generally diversified in nature, having a wide range of products which were sold at a broad number of markets locally and in New England. In the 1950's and 1960's, trends in agriculture began to move from this diversified model to one where farms specialized primarily in a single product -- dairy. This reliance on a single product put farmers at the mercy of national milk markets, which were notoriously unstable. The primary reason that farm closures occurred, particularly during the 1980's, was due to instability of milk prices, one of several key moments in agricultural history that have impacted farming in Rochester. Other issues included:

- Government mandate that all farms have bulk tanks and parlor floors
- Consolidation of farms
- Impacts of mechanization

C. Agricultural Trends

An analysis of the United States Census of Agriculture data between 2002 and 2007 (2007 being the most recent period of data collected) shows that farming in Vermont is slowly shifting away from the larger scale farm that developed because of trends toward consolidation. Between 2002 and 2007, the number of farms in Vermont increased by 6%. The average size of farms decreased from 189 acres to 177 acres between ag censuses. This is most likely because 37% of Vermont's farms in 2007 were considered "hobby farms" – farms that sell under $2,500 in agricultural products per year. While the number of "hobby farms" continues to grow, these farms only produce slightly less than 3% of Vermont's agricultural income.

Despite this decrease in farm size, over the past 10 years a growing movement in sustainable agriculture—involving increased local food production and consumption, value-added processing, and diversified farms—has taken off. In 2009, the State of Vermont created legislation which created the Farm to Plate Investment program, part of which included the creation of the Farm to Plate Strategic Plan.

In 2007, USDA data indicated the estimated agricultural revenue in Vermont to be $673 million per year. Vermont's major agricultural and food product output totaled $2.7 billion in 2007, the latest year of the Census of Agriculture.

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

distribution establishments that collectively employ at least 2,288 people. The farm-related food industry is clearly connected to the farm economy.

In Rochester, as in the rest of Vermont, the scale and style of farming has changed. While there is only one dairy farm in Rochester, the 2007 Census of agriculture reports that there are 27 full and part-time farm operations. More than 60% of these operations utilize at least 50 acres of land. Products grown or produced on farms in Rochester include hay, corn, maple syrup, fruit, cattle, horses, chicken, pigs and sheep.

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

Though federal law recognizes the importance of farmland and farmland protection, local planning and zoning regulations often neglect the issue of prime agricultural land and the conflicts that arise between expanding development and successful farming. The distinctiveness of the working landscape gives Vermont its beauty. Farms provide open space for wildlife habitat, scenic views and a connection to the land that is hard to find in other places. They also help our towns avoid sprawl and maintain small town and village settlement patterns. As such, to continue to receive the benefits farming has to offer, a community must encourage farming.

D. Forestry Trends

Three primary trends have affected the region's forestland and its productivity. First, forests and farms are being increasingly "parcelized" or subdivided into small lots which threaten the economic viability of forestry. Development pressure in the region has been relaxed since the early 1990's, but the economy is predicted to rebound and the trend of land moving out of forest use to other uses will continue, particularly in those areas where access and development suitability are not severe.

Funding of the Current Use Program has been identified by the Northern Forest Lands Council as vital to landowners keeping their patience, not over harvesting the forests or opting for liquidation cutting of tracts. High taxes contribute to a low rate of return on timber sales, and have prompted some conversion to non-forest uses. Second, markets for timber and wood have been responsive to a glut of some products affecting prices, at least in the short run. While the number of mills in the region have declined, there has been a move to new markets, one being an export demand for hardwood logs and another being a demand for pulpwood and other specialty types. For a state mostly known for hardwood, the demand for pulp has led to better managed forests because it is generally the lower grades or poorer cuts that are being used. Third, federal and state estate and inheritance tax laws have placed family landowners into financial predicaments where they need to subdivide or develop forest land to cover taxes. Current tax law bases estate values on the market value of land rather than at use value. By allowing land to be assessed based on current use, family landowners can realize a more reasonable return on investment for long-term timber management.

Forest products continue to be a significant share of the region's manufacturing sector, although the way statistics are kept makes it hard to quantify. Overall, according to the Vermont Department of Employment and Training, jobs in the lumber and wood products industries have increased statewide. In

looking at the Vermont forest products industry, it is worth noting that the industry, like agriculture, has virtually no impact in setting trends as it is a relatively small national producer.

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

Agriculture and Land Use Regulation

Land use regulation has a definite impact on farming. For example, a zoning ordinance that allows for large tracts of land to be sold for residential purposes could conceivably help protect open space, but that open space might no longer be available for agricultural use without considerable forethought and design. The same ordinance calling for much smaller lot sizes (such as one acre) would, over time, lead to an incremental decrease in the amount of usable farmland.

Therefore, if agricultural uses are to be preserved, we need to protect them. V.S.A. Title 12, Chapter 195, Section 5753 is intended to protect farmers against nuisance law suits. It states that:

Agricultural activities shall be entitled to a rebuttable presumption that the activity does not constitute a nuisance if the agricultural activity meets all the following conditions:

a) It is conducted in conformity with federal, state, and local laws and regulations (including accepted agricultural practices);
b) It is consistent with good agricultural practices;
c) It is established prior to surrounding nonagricultural activities; and
d) It has not significantly changed since the commencement of the prior surrounding nonagricultural activity.

However, there have been circumstances where the state statute has not offered enough protection.

E. Forest Fragmentation

Forest fragmentation is the breaking of large, contiguous, forested areas into smaller pieces of forest. For natural communities and wildlife habitat, the continued diving of land with naturally occurring vegetation and ecological process into smaller and smaller areas create barriers that limit species' movement and interrupt ecological processes.

Since the 1980's, Vermont has experienced "parcelization," which is the result of larger tracts of land being divided into smaller ownerships or land holdings. The more individuals that own smaller parcels of forest, the more likely that the land will ultimately be developed with infrastructure (such as roads and utilities) and buildings. The 2015 Vermont Forest Fragmentation Report identifies the following causes for this trend:

- Escalating land prices;
- Increased property taxes;
- Conveyance of land from aging landowners; and
- Exurbanization (the trend of moving out of urban areas into rural areas)

While development pressures have slowed in Vermont since 2010, the damage done to our forestlands has been significant. In several of our communities (including Randolph, Hartland and Brookfield), there are no longer large, contiguous, forested areas to serve as significant wildlife habitat or to act as connections to larger areas of habitat.

Forest Resources

Vermont is one of the most heavily forested states with 4.6 million acres or 75% of its lands covered in trees. The Two Rivers region is situated within the larger North-Eastern forest corridor, which contains the Green Mountains (running down the spine of Vermont), the Adirondack Mountains (in eastern New York), and the White Mountains (in western New Hampshire). Accordingly, two famous hiking trails run through the Two Rivers area: the Long National Recreation Trail (or 'Long Trail,' which stretches from the northern to southern border of Vermont) and the Appalachian National Scenic Trail (or 'Appalachian Trail,' which cuts a path between Georgia and Maine).

At the local level, forestlands might be owned by the federal, state, or even local government, or by private individuals. Some of the private properties have been conserved with the assistance of local land trusts (for example, the Vermont Land Trust or the Upper Valley Land Trust), while others are enrolled in the State's Use Value Appraisal Program (UVA or 'Current Use').

F. Sustaining Agriculture and Forestry

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

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

Conservation Easements

Conservation easements are a common method used to ensure that the working landscape gets preserved. The Vermont Land Trust (VLT), Vermont's largest non-profit conservation organization, has conserved more than 590 parcels of land in agricultural use throughout the state, totaling 145,109 acres. Most land purchased with the intent of applying a conservation easement to it is funded, at least in part, by some form of grant funding from either state or private sources.

The use of conservation easements has both pros and cons for municipalities, they include:

Pros

- Easements are flexible; they can be written to achieve specific goals of the town involved.
- They are perpetual, and restrictions put on the conserved lands will remain in force even when the property is sold to a new party.
- They conserve scenic beauty and environmentally sensitive areas.
- Eased property remains on the tax rolls.

Cons

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

The Rochester Planning Commission acknowledges that conservation easements are one potential solution to preserving the working landscape.

G. Farming, Forestry and the Economy

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

There is already a growing mix of emerging entrepreneurs and long-time land-based businesses that are constantly evolving to stay competitive. They're producing biofuels, artisan cheese, specialty wood products, produce, breads and other value-added items.

For Rochester, it is essential to encourage the growth of both forestry and agricultural industries within the community. These enterprises will continue to sustain the natural character of the town while adding the potential for jobs and unique and creative attractions that will bring people into the community for recreation and education. If tourists come to Rochester to visit a new organic farm or specialty wood or forest product producer, they will need a place to stay for the night; they will buy dinner at local restaurants, adding additional capital to the economy.

H. Goals, Policies and Recommendations

Goals

1. Encourage the conservation, wise use and management of the town's agricultural and forestry resources, to maintain its environmental integrity, and to protect its unique and fragile natural features.
2. Protect the Region's rural agricultural character, scenic landscape, and recreational resources.
3. To encourage the economic growth of agricultural and forest operations at a scale that is appropriate for Rochester.
4. Encourage the use of locally-grown food products.
5. Increase the acreage of contiguous forestland to ensure that all indigenous species have adequate access to necessities, including, but not limited to food, water, and varied habitat.
6. Increase the number of forest-related jobs in the region.
7. Raise community awareness about the range of forest products that are made in this region and the importance of buying local forest products whenever feasible.
8. Maintain the historical land use pattern of town centers separated by rural countryside.
9. Reduce the fragmentation of forest lands.

Policies

1. Where contiguous areas of high value farming or forestry exist, or have significant potential to exist, fragmentation of these areas into uses other than those incidental to agriculture or forestry should be discouraged.
2. Where high value agricultural and forested land are identified, clustered or peripheral development is especially encouraged to protect such resources and prevent fragmentation and sprawling settlement patterns.
3. Contiguous forest and significant agricultural areas should remain largely in non-intensive uses unless no reasonable alternative exists to provide essential residential, commercial and industrial activities for the Town’s inhabitants.
4. The construction of utilities, roads or other physical modifications should skirt tracts of productive agricultural land rather than divide them.
5. Farmers, loggers, and foresters should use Accepted Management Practices (AMP) and are encouraged to implement Best Management Practices (BMP) in their operations and to minimize point and non-point source pollution.
6. Support the development of value-added farm and forestry products in Rochester.
7. To preserve recreational and scenic access by ensuring that at the completion of logging projects all roads are restored to their previous condition.
8. Conservation easements by the State of Vermont and non-profits are supported.
9. Motorized recreation should be limited to designated existing trail/road networks and be compatible with any critical wildlife habitat and water quality protections, but retention of snowmobile trails, many of which go over private land and are part of the statewide VAST trail network, is a priority. Conservation plans developed for landowners in this area should reflect, where practicable, the desire to retain this network of trails and not close or cut-off important trail routes.

10. The development of renewable energy generation methods and facilities that utilize woody biomass is encouraged.
11. Forestry practices shall maintain or enhance the diversity of ecosystems existing in the region.
12. Appropriately sited and designed businesses promoting the local processing, sale and distribution of native raw materials and products is encouraged. Planning and regulatory review at the state and local level should not unduly restrict the development of "home cottage" industries which complement farm and forestry.
13. The construction of utilities, roads or other physical modifications in areas identified in this plan as forest core and connectors is incompatible with this plan.
14. Loggers and foresters must use Accepted Management Practices (AMP) and are encouraged to implement Best Management Practices (BMP) in their operations and to minimize point and non-point source pollution.
15. It is the policy of the Regional Commission to minimize or mitigate the loss of these resources to development. As an alternative to conventional methods, the Regional Commission endorses use of off-site mitigation techniques to offset the loss of these resources. However, endorsement of off-site mitigation should be conditioned on finding that the project proposal is:
    a. Consistent with this Plan and the plans of affected municipalities; and
    b. Provides an equal or greater public benefit than conservation of the development site itself.

Recommendations for Action

1. Local land use planning activities and programs affecting agriculture and forestry should consider the ways to promote these industries. This could include local bylaws and the creation of farm and forest land conservation programs, including:

    - overlay districts
    - agricultural zoning
    - transfer of development rights
    - purchase of development rights
    - cluster development
    - area based allocation
    - performance standards
    - impact fees;

2. To promote a better understanding of the farming and forestry practices, and natural resource management in general; the industry, conservation organizations, public schools and the tourism and recreation industries should sponsor continuing educational opportunities to the public.

XVII. Relationship to Other Plans

A. Relationship to Municipal Plans

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

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

- Bethel – Bethel has had a municipal plan and zoning for decades. Their current plan was adopted in 2014 and their zoning bylaw was adopted in 2008. Much of the land that abuts Rochester in Bethel is of a scale and density that is like Rochester – primarily rural residential in nature. However, along the Camp Brook Road, Bethel currently has an area that allows an extensive range of commercial activities, which is not consistent with how Rochester treats the road. As of the writing of this document, the Planning Commission is aware that Bethel is revising their Town Plan and this potential conflict is likely to be addressed.

- Braintree – The Town of Braintree has had a long history of planning and zoning. Their current Plan was adopted in 2017. The Braintree Unified Bylaw (zoning and subdivision) was adopted in 2010. A substantial portion of Rochester's eastern boundary is adjacent to Braintree. Much of that land in Braintree is treated as a conservation area, where density is low and most development is discouraged to maintain the rural nature of the land. There are no conflicts between the Rochester and Braintree Plan.

- Chittenden – The Town of Chittenden has an adopted Town Plan (2015) and no additional land use regulations. Much of the more rural landscape in Chittenden has been identified as appropriate for recreation, agriculture and forestry. New residential and commercial development is discouraged from these areas. This pattern of development does not have the potential to create conflicts with the Rochester Town Plan.

- Goshen – Goshen has a minimal approach to land use, although they do have a Town Plan and zoning bylaw. Their Plan, adopted in 2017, has a limited number of land use areas. These areas divide the community (including lands adjacent to Rochester) into low density residential and conservation areas. The pattern of development proposed in Goshen is consistent with Rochester's Town Plan.

- Granville – Granville has an adopted Town Plan and a Flood Hazard Bylaw. The pattern of development promoted by the Granville Town Plan along Rochester's border is very similar to the diffuse pattern outlined in the Land Use chapter of this plan. Uses encouraged in Granville

are likewise similar. There are no potential conflicts between these plans.

- Hancock – The Town of Hancock has maintained a Town Plan for roughly a decade. Their only land use regulation is a Flood Hazard Bylaw. Hancock's land use patterns are very traditional in that they focus concentrated mixed-use development within their village. Outside of the village, they envision a mix of low density residential and home businesses. This pattern of development is consistent with the Rochester Town Plan.

- Pittsfield – The Town of Pittsfield is Rochester's immediate neighbor to the South. Pittsfield has a Town Plan, but they do not have zoning or subdivision regulations – only Flood Hazard Regulations. Pittsfield's approach to land use density and type along Rochester's border is like Rochester – dispersed development that is primarily residential in nature.

- Stockbridge – The Town of Stockbridge has an adopted Town Plan (2015) as well as zoning, subdivision and flood hazard regulations. The border shared by Rochester and Stockbridge is fairly small. The pattern of development in this area is rural in nature, which is consistent with the Rochester Town Plan.

B. Relationship to the Regional Plan

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

The Regional Commission adopted its Regional Plan in July 2017. It will remain in effect for a period of eight years. This Plan was developed to reflect the general planning goals and policies expressed in the local plans. It is an official policy statement on growth and development of the Region. The Regional Plan contains several hundred policies to guide future public and private development in the Region. Policies for land use settlement are identified. These areas are: Town Centers, Village Settlement Areas, Hamlet Areas, Rural Area, and Conservation and Resource Areas. Delineation of each land use area is mapped or charted.

Prior to revisions to this Plan, the Two Rivers-Ottauquechee Regional Commission provided Rochester with an "enhanced consultation" at which staff identified areas of conflict between the Regional Plan and the Rochester Town Plan adopted in 2013. The major area of concern was a strip of commercial development allowed along Route 100 north of the village that the Regional Commission viewed as counter to the state planning goal which discourages strip development. Additionally, the allowance of retail development was directly in conflict with the Regional Plan which contains policies that require principle retail establishments to be located in village centers and downtowns.

In response to this conflict, the Rochester Planning Commission has modified the areas identified and excluded retail development from these areas. If adopted as originally written, there will be no conflict between the Regional Plan and the Rochester Town Plan.

C. Goals, Policies and Recommendations

Goal

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

Policies

1. To encourage continued communication and cooperation between Rochester and its neighboring towns.

2. To continue participation in the Two Rivers Ottauquechee Regional Commission.

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

XVIII. Town Plan Implementation

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

Both regulatory and non-regulatory implementation can be approached in multiple ways. They include (but are not limited to) the following:

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

A. Regulatory Implementation

Regulation of land use and development through rules adopted by the voters is one possible method of Plan implementation. Because these regulations are susceptible to legal challenge and must clearly benefit the public, discretion must be used. Well recognized and utilized means include, but are not limited to, zoning bylaws and subdivision regulations. Examples of potential implementation tools include:

Zoning Bylaws

Zoning bylaws are a commonly used method for guiding development at the local level. Zoning may regulate:

- Uses of land,
- The placement of buildings on lots,
- The relationship of buildings to open space, and
- The provision of parking, signs, landscaping and open space.

Rochester has a zoning bylaw which establishes districts or zones that have a different set of uses, densities, and other standards for development. Zoning districts must be reasonably consistent with the Town Plan, and it is the responsibility of the Planning Commission to implement any changes to zoning that are proposed in this Plan. As an alternative to conventional methods, Rochester may opt to

implement a set of measurable performance standards for specific uses as opposed to dividing the Town into districts. This technique, referred to as "performance zoning", is designed to be more flexible and to recognize the specific conditions of each site proposed for development.

Subdivision Regulations

Rochester has had subdivision regulations since the 1970's. These regulations are administered by the Planning Commission. Subdivision regulations govern the division of parcels of land and the creation of roads and other public improvements. Furthermore, subdivision regulations can ensure that land development reflects land capability and that critical open spaces and resources are protected from poor design or layout. It is the responsibility of the Planning Commission to implement any changes to subdivision regulations that are proposed in this Plan.

Flood Hazard Bylaws

Under Vermont law [24 V.S.A., Section 4412], the Town of Rochester is able to regulate the use of land in a defined flood hazard area adjacent to streams and ponds. These bylaws have been established to ensure that design and construction activities within the limits of the 100 Year Flood Plain are designed so as to minimize potential for flood damage and to maintain use of agricultural land in flood-prone areas. As noted in the Natural Resources section of this Plan, property owners are eligible for federal flood insurance on buildings and structures at relatively low federally subsidized premium rates. However, such insurance cannot be obtained for properties in Rochester unless the Town has in effect a Flood Hazard Bylaw which, at present, Rochester has. Flooding and its impacts, particularly related to Tropical Storm Irene is discussed throughout this document. The strengthening of Rochester's Flood Hazard Bylaws has been suggested. It is the responsibility of the Planning Commission to implement any changes to Flood Hazard Bylaws that are proposed in this Plan

Act 250

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

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

These criteria relate to the environmental, economic, and social impacts of the proposed project on the community and region. Parties to Act 250 proceedings include Rochester, through the Planning Commission and Selectboard, the State, and the Regional Commission. One criterion that needs to be addressed is whether the project is in conformance with the Rochester Town Plan. If a project were determined not to be in conformance with the plan, the District Environmental Commission would have a basis to deny a permit. As such, Act 250 reviews can take into consideration protection of those types of

resources considered important to the well-being of the community. Accordingly, it is in the interest of the Town to evaluate Act 250 projects affecting Rochester and to offer testimony, as appropriate.

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

Highway Ordinances

Rochester has adopted VTran’s standards for road and bridge design. The Selectboard also has the ability to regulate private access to municipal roads through the issuance of "curb cut" permits to landowners. "Curb cuts" are places where a private driveway or road connects to a town highway. In granting a cut onto town roads, the Selectboard can give consideration to safety issues such as adequacy of sight distance and proximity to intersections as well as conformance with this Plan.

B. Non-Regulatory Implementation

Capital Budget & Program

The creation of a capital budget and program has been discussed in several chapters of this Plan. A capital budget and program is a financing approach that benefits the town greatly in the selection, prioritization and costing of capital projects. Under the capital budget, a project is selected (e.g. bridge refurbishment), a funding source determined (e.g. general taxes, and general obligation bonds) and a priority year given for each activity (e.g. construction in 2015). Collectively these capital projects make clear when public facilities will be placed to accommodate projected growth. When used in conjunction with the Town Plan and local bylaws, it can be a powerful mechanism for limiting the rate of growth in accordance with the fiscal capacity of taxpayers and other funding sources.

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

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

Advisory Committees

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

Coordination of Private Actions

Citizens and private enterprise have a vested interest in the well-being of Rochester. The actions of the private sector(such as the construction of homes and businesses, land conservation, and the recreational/agricultural use of land), should relate positively to the goals and policies as set forth in this Plan.

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

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

Conservation Activities

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

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

Vermont Community Development Program

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

Rochester should investigate the Vermont Community Development Program and its potential to assist the community in addressing its housing needs. The Regional Commission and the Vermont Agency of Commerce and Community Development are resources available to assist. (PH: 802-828-3217).

C. Responsibility for Implementation

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

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

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