2015

2015 PITTSFIELD TOWN PLAN

ADOPTED AUGUST 18, 2015

WRITTEN BY THE PITTSFIELD PLANNING COMMISSION
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WITH ASSISTANCE FROM THE TWO RIVERS-OTTAUQUECHEE REGIONAL COMMISSION, FUNDED BY A MUNICIPAL PLANNING GRANT FROM THE DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT.

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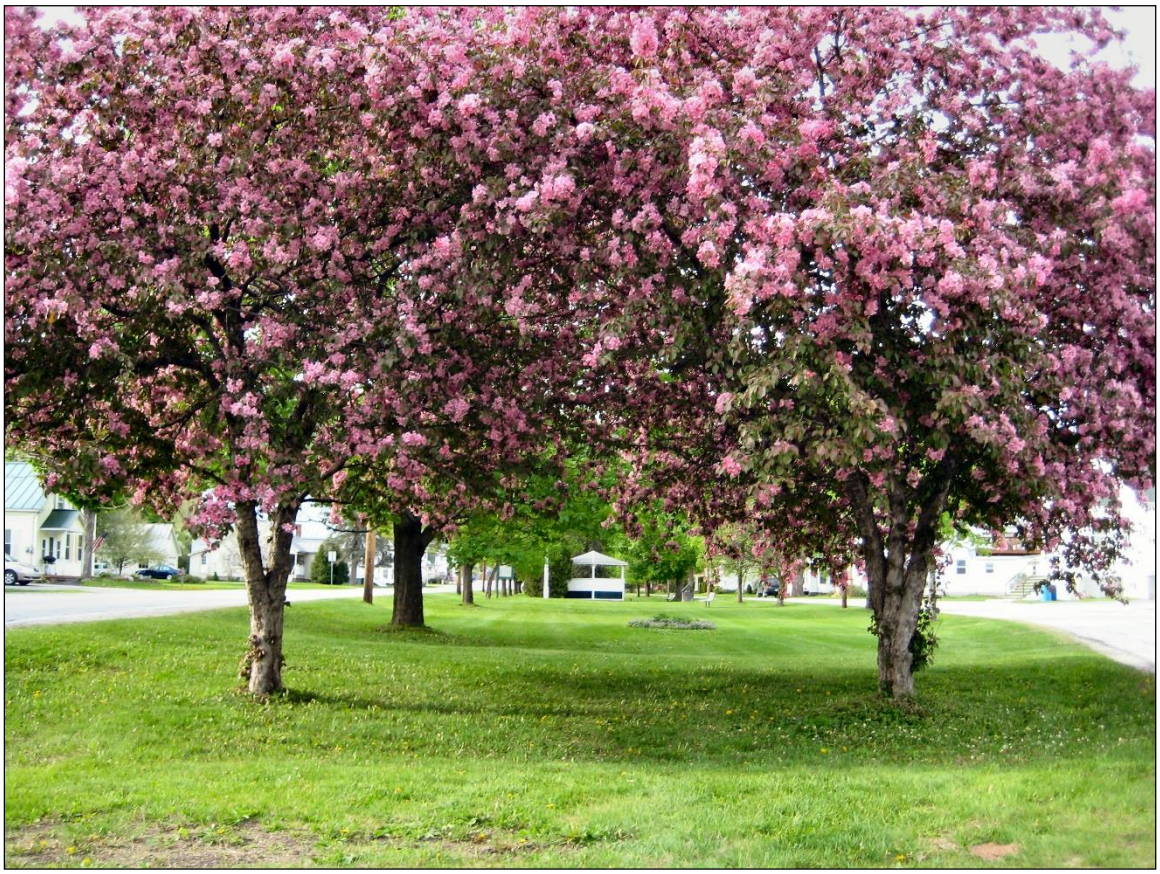
I. INTRODUCTION

A. Town Setting

The Town of Pittsfield is a triangular shaped community situated in the northeastern corner of Rutland County, comprising an area of 13,296 acres or 20.77 square miles. It is bounded by four towns; Stockbridge to the east, Chittenden to the west, Rochester to the north, and Killington to the south.



The physical setting of the Town consists of rather steep mountains rising to an elevation in excess of 3200 feet in the west to more gradual but rugged mountains in the east, interspersed with valleys and streams in the lower elevations. Here in the valleys, the terrain is relatively level as compared to the rest of the Town.

B. Town History

Pittsfield was chartered on July 29, 1781 by Thomas Chittenden, then Governor of Vermont. A proprietors meeting, held in December, 1781 laid out the plots of the township, giving each proprietor 52.5 acres. A like number of acres was set aside for public buildings and reservations. Within three years of receiving his land, each proprietor was required to build a home 18' X 18' or forfeit the allotted acreage. In 1787, a further 40 acres was to be allotted to each proprietor, but it was discovered at that time that Stockbridge and Chittenden had greatly exceeded their boundaries, leaving a half township to Pittsfield. This was contested in court for years, and resulted in Pittsfield becoming one of the smallest townships in Vermont.

First settlements were commenced about 1786, with the majority of the migrants coming from Connecticut and Massachusetts. Among them, Charles Goodrich, who operated one of the first mills in the village, was given the honor of naming the Town. This he did for his place of birth: Pittsfield, Massachusetts. Daniel Bow, another of the earliest settlers, deeded the village green to the Town, stipulating that no public buildings or buildings of any kind be allowed upon it, and that it be enclosed by a fence.

In 1808, the Rutland to Stockbridge Turnpike was completed, which substantially bolstered Pittsfield's agricultural economy for many decades to come. The Town's population nearly doubled after this roadway was established, reaching 615 residents by the 1850 U.S. Census. With this larger population came a significant growth in wood-frame farmhouses throughout the White and Tweed River Valleys. Throughout this period of growth and beyond, Pittsfield's Village was typified by two distinct settlement areas: the "Upper Village" and the "Lower Village" based on

both local geography and uses within each area. The Upper Village area referred to the dwellings and public buildings that grew up around the Village Green. The Lower Village, meanwhile, was comprised of buildings located further down by the river, and extended to include buildings associated with the Town's mills and other industrial sites.[1]

The early industries of the village were the typical, somewhat crude ones of the times: saw mills, stores, taverns, and even a potato distillery that sold a poor grade of spirits. The sale of potash produced the means of trading for most necessary wares. Farms were located in the low lands along the rivers of the Tweed and the West Branch of the Tweed, and a few farms were operated in the lower parts of the mountains.

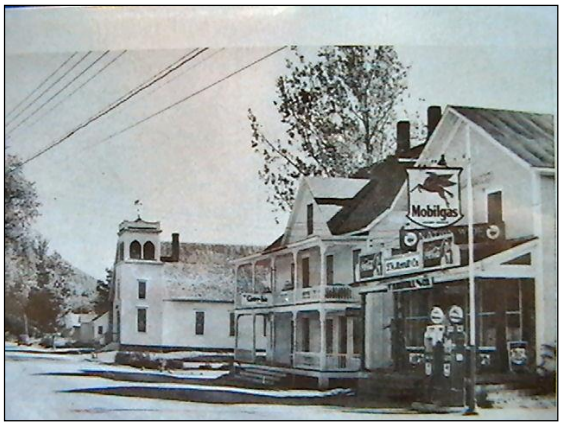
The first school house was built in 1800 to meet the needs of the Town's children. The year 1816, commonly deemed the year of "no summer" along with its accompanying sickness and famine, produced one of the first radical changes to affect the economy and population of the village. Until this time, the village boasted a population of nearly 500 people. However, the population grew in ensuing decades, and by 1876 five school houses were needed to accommodate the children of the Town. There were also two churches and their accompanying parsonages, two flourishing inns, two stores, a tannery, a blacksmith shop, and other small shops within the inns.

In 1877, a J. J. Saltery, prospecting near Gaysville, found a large amount of iron ore in the White River that he traced to its source on the west branch of the Tweed River. At the end of what is now known as Lower Michigan Road, in a village later called Pertville, Saltery founded a mining company in 1880 with a capital stock of $2,500,000. This venture of mining iron proved very successful until 1895.

W. Storrs Lee, in his book "The Green Mountains of Vermont," provides us with an excellent picture of the village in 1908:

> …a good example of a village leaning on its country store for life and legislation—a superior hamlet tucked into a fold of the Green Mountains—to the north, Wilcox Peak stood out aggressively giving a much more pompous impression than mountains of only three thousand feet usually give ... Pittsfield could boast of only one avenue, lined on both sides with houses and split by the long narrow village green. It was the green, more than an eighth of a mile long that induced strangers driving through to pause. Between April and October, something of consequence was always taking place there: lawn parties, church sales and ice cream suppers, croquet tournaments, baseball games, tennis matches... The youngsters rarely thought of going beyond the village environs for a better time. Pittsfield in its social self-sufficiency provided ample excitement... Year round there were "bees" of one sort or another and old and young, when they tired of joshing at the store, were always welcome at the hotel for sings and dances. Everyone was on the same social level, everyone knew the four hundred and thirty four residents of the Town.

In the early 1900s, the coming of the motorized vehicle—and the gradual but steady improvement of the roads—brought many visitors to Pittsfield for vacations, and to be in the country's peace and quiet. At that time, Pittsfield had two fine inns: The Green Mountain and the Vose House (currently operated as the Casa Bella Inn).[2] Much of the Town's nineteenth century architecture



and overall character has been retained, in part due to the Town's relative isolation from larger, more developed towns in the region.[3] This continues to be a draw for visitors who are drawn to Pittsfield's natural landscapes, historic architectural integrity, and the Town's small village appeal.

Electric power came to Pittsfield in the late 1920s, and, by the early 1930s, roads were blacktopped and horses and buggies gave way to automobiles. Throughout the 1930s and 1940s, farming, logging, and mills were the main businesses. Quiet came to the Town in the 1930s with the Great Depression. Summer guests would come for a couple of weeks on the train en route to Bethel or Rutland.

Everything was put into the World War II effort from 1941-1945, and most of the men between the ages of 18 and 36 served in the armed forces. There were still quite a few small farms in Pittsfield in the 1950s, and a lot of milk was trucked to the Bethel Creamery in metal milk cans. Harry Dwire picked up milk for a while and then sold his route to Kim Fifield.

Major changes came in the late 1950s and 1960s with the advent of the local ski industry. Second homes were built, and many existing properties were rented out as ski lodges, including: Colton Guest Farm, Swiss Farm, and the Fleur de Lis. The community changed further in 1968 with the closing of the Town's school. Pittsfield then joined with Stockbridge for a primary education union school. Also in the 1960s, C.W. Cairns donated an acre of land around 1966 to the Town where the fire station now stands. The fire station was erected with all volunteer labor.

Second home housing developments took off in the 1960s and 1970s, including Hawk Mountain and Townsend Brook. In 1982, Stanley Tools built their plant in Pittsfield on the field where baseball was once played. Colton Enterprises later opened as well as Pittsfield Standing Seam, and both remain in business to this day (Pittsfield Standing Steam now doing business as PFS, Inc.).

The Town of Pittsfield has seen somewhat of a resurgence in economic growth within the village center in recent years despite business closures that have occurred over the past decade. The Original General Store and the Swiss Farm Market & Gas Station on Route 100 have both grown and attract a significant amount of foot and vehicle traffic to the area. The Town is also home to many lodging and resort sites that cater, in part, to weddings and other large events.

C. Town Planning as a Concept

Pittsfield is more than a residence or a work site for the Town's citizens. Pittsfield is a way of life, consisting of the social, environmental, economic, and cultural conditions and values fostered and valued by the people who live and work here. These conditions and values represent the major reason that many of the residents choose to live in Pittsfield.

This Municipal Plan is intended to serve as a guideline for the maintenance of those characteristics which most of the Town's residents seem to hold dear: the quality of life that requires protection and for which the residents are willing to forgo, or sacrifice, the amenities other municipalities, state-wide or nation-wide regard as essential. Additionally, state statute requires that the Municipal Plan be the basis of all future town regulations.

While the main design of this Municipal Plan focuses on the maintenance of Pittsfield's quality of life, the Plan also acknowledges that conditions change, events happen, values are altered, and population shifts occur. Thus, this Plan makes allowance for orderly, carefully considered changes under controlled conditions. Changes are welcome so long as they contribute to the betterment of Pittsfield's residents. Change is a fact of life and something to be welcomed. Change can come about willy-nilly or in a rational sequence of events. This Plan is set forth to preclude haphazard change, as much as possible, and to assure that those factors the Town and its citizens can control will be controlled. We all are the Town, and we choose to exercise all the control we can. This Plan will help us by indicating how we want change to come about, and it tells non-residents what we, as a Town, expect.

The economic transformation in the state over the last 25 years, and population changes associated with it, stimulate the need for Pittsfield's citizens and officials to examine current conditions and the prospects for the future. To benefit from change, the community must understand the problems and opportunities that it faces and identify goals for the future. The Town has a choice in the way it finds to provide for orderly growth, to balance the natural and built environments, and to provide for community functions and services as well as its heritage. This Plan is an opportunity to choose a future for Pittsfield.

Two major pieces of legislation establish the framework for planning in Vermont. The first is Chapter 117 of Title 24, the Municipal and Regional Planning and Development Act. The second is Act 250 (10 V.S.A. Chapter 151). Act 250 sets forth state policies on land use throughout Vermont. The law establishes ten criteria and a development review process by which major subdivisions and development proposals must follow. The policies of the Act have been coordinated with the municipal planning process outlined in Chapter 117.

The passage of Act 200 in May, 1988 marks an historic achievement for strengthening planning in Vermont, filling Act 250's planning gap. The basic goal of the law is to create a process of integrating plans at the local, regional, and state levels. To do this, financial resources are available to all towns for planning. Act 200 establishes a planning process that is guided by thirty-two planning goals. These are the fundamental premises on which planning decisions are to be based.

D. The Planning Process for Pittsfield

The Pittsfield Planning Commission, in cooperation with the Two Rivers-Ottauquechee Regional Planning Commission, has been updating the elements of this Municipal Plan. The planning process is continual, as the Plan must be updated by the Commission and approved by the Selectboard every five years following public hearings. The Pittsfield Community's input is a critical component to both the creation and furtherance of this Plan. As such, the Planning Commission has consistently ensured that the Plan drafting process has been conducted in a fair and open manner, welcoming any input from local community members, employers, stakeholder groups, and other interested parties at all stages of the process.

Although this Plan is not regulatory in nature, during its five-year life it will enable the Town to legally address the impact of development proposals that fall within the jurisdiction of Vermont's Land Use and Development Control Law: Act 250. Under the Act, before a Land Use Permit can be granted by the District Environmental Commission, it must be found that the proposed development or subdivision is in conformance with the Pittsfield Town Plan. Therefore, it is essential that the goals, policies, and recommendations of this Plan are written clearly and specifically, making the vision of Pittsfield's residents very apparent to the reader.

It is the intent of this Plan, by popular input, to establish rational and meaningful guidelines, which address growth and development concerns so as to assure a healthful and well-balanced community in the years to come.

GOALS, POLICIES AND RECOMMENDATIONS

State statute requires that all plans have a "statement of objectives, policies and programs of the municipality". In this plan, this requirement is met through "goals, policies and recommendations". Goals, policies and recommendations of a plan must be viewed as an integrated system of statements that have clear relationships to each other and to the body of the Plan. The definitions of these terms must be made clear for the understanding of each plan section as well as the coordination of the plan sections with each other. The terms defined below are used throughout the Plan:

Definitions:

- **Goal**: Why something should be done—the state of affairs that a plan is intended to achieve.
- **Policy**: What should be done—an expression of how to meet a goal.
- **Recommendation for action**: How should it be done and who should do it—a specific action that is advised to be taken in order to implement a policy.

Examples:

- **Goal**: Increased public safety for pedestrians.
- **Policy**: All the crosswalks in Pittsfield should be painted with diagonal lines to alert vehicular traffic to the crossing of pedestrians.
- **Recommendation**: The Selectboard should work with the public works department to have the crosswalks painted.

The goals, policies and recommendations in the Plan are not listed in ranked order of importance; they are numbered for ease of reference.

E. Purposes and Objectives of the Plan

It is the intent and purpose of this Plan to encourage the appropriate use of all lands in the Town of Pittsfield in a manner which will promote the public health, safety, prosperity, comfort, convenience, efficiency, economy, and general welfare; and to provide means and methods for the future elimination of such land development problems as may presently exist or which may be foreseen. In addition, this Plan shall further the following specific objectives:

1. To protect the rural residential environment of Pittsfield.
2. To preserve and protect areas and sites of historic interest.

3. To protect steep slopes, soils, forests, water quality, water courses, and other natural resources, and to provide open space for wildlife habitat.
4. To protect and preserve the historic features of the village area of Pittsfield, while encouraging a rational and convenient pattern of development, with appropriate civic and architectural design, to enhance the overall attractiveness of this area.
5. To ensure the availability for adequate parks and public facilities.
6. To encourage the healthful and convenient distribution of population, employment opportunities, and other activities, and to protect residential, agricultural, and other areas from undue concentrations of population and overcrowding of land and buildings from traffic, congestion, from inadequate parking and the impacts of through traffic, and from the loss of peace and privacy.
7. In so doing, the Plan shall maintain the freedom, rights, privileges, and responsibilities of all citizens of Pittsfield.

II. Demographics

A. Introduction

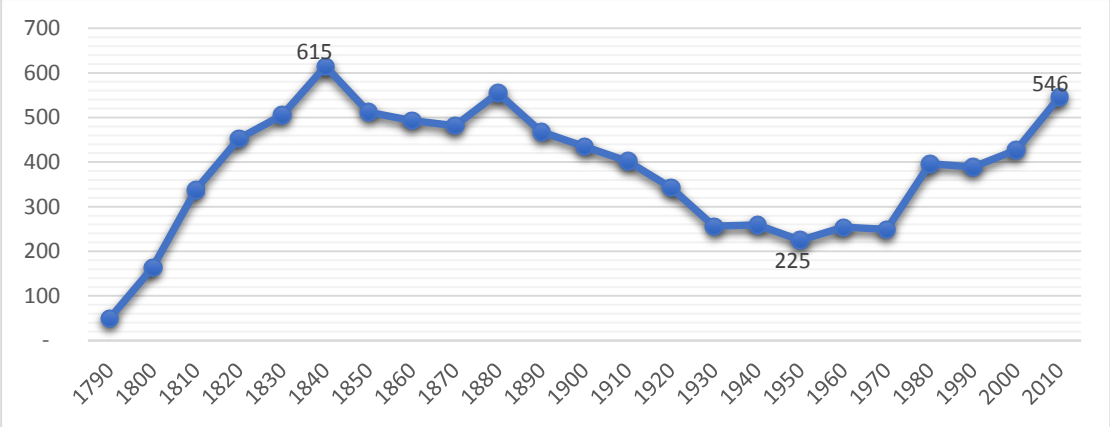
The demographic nature of a town reveals a great deal about the town and its future. To get a real-time snapshot of a town, it is important to have the most up-to-date data available. However, because the best source of data available is the U.S. Census, which is collected every decade, it is sometimes difficult to obtain the most recent data during a mid-decade Town Plan update. In the case of this Town Plan, we have used the most up-to-date data available, drawing on more recent state-level data whenever possible.

B. Population

Population, when considered in terms of past, present, and future growth patterns and trends, comprises an important factor in the development of Pittsfield. Rapid or unanticipated growth can create a demand for new and expanded municipal services, straining the financial ability of the Town to provide public services economically or equability. Accordingly, it is in the public interest to monitor population changes, and to direct these changes in a manner that does not burden the Town's ability to provide services. Outlined in Figure 1 below are some basic population statistics for the Town of Pittsfield compiled from U.S. Census Bureau data.

In the decade between 1990 and 2000, there was only modest growth in Pittsfield. However, in the decade between 2000 and 2010, population numbers were on the rise, nearing some of highest population levels since the late 1800s. The Town appears to have become more attractive in recent years to younger families and outdoor enthusiasts.

Figure 1: Pittsfield Population, 1790-2010



Source: U.S. Census, 2010

According to historical population data presented in Figure 1, Pittsfield's population in 2010 numbered 546 compared to a population of 427 in 2000, resulting in a substantial population increase of 27.9% in just one decade. Rutland County saw negative population growth in the same time period (a decline of -2.8%), while Vermont as a whole saw growth of 2.8%. The pronounced growth seen in Pittsfield may be attributable to the Town's close proximity and commuting

distance to larger towns with greater employment opportunities, such as Woodstock, Killington, and Rutland. Pittsfield's 2010 population is equivalent to 64.4% of the all-time population high of 615 in 1840.

Table 1: Percent Population Change, 1980-2010

	1980	% change	1990	% change	2000	% Change	2010
Chittenden	927	*18.88%*	1,102	*7.26%*	1,182	*6.43%*	1,258
Killington	891	*-17.17%*	738	*48.37%*	1,095	*-25.94%*	811
Pittsfield	396	*-1.77%*	389	*9.77%*	427	*27.87%*	546
Rochester	1,054	*12.05%*	1,181	*-0.85%*	1,171	*-2.73%*	1,139
Stockbridge	508	*21.46%*	617	*9.24%*	674	*9.20%*	736
Rutland Co.	58,347	*6.50%*	62,142	*2.02%*	63,400	*-2.77%*	61,642
Vermont	511,466	*10.03%*	562,767	*8.18%*	608,827	*2.78%*	625,741

Source: U.S. Census, 1980, 1990, 2000, 2010

Population projections reflect an estimate of natural changes in population that considers births, deaths, and estimates of migrations—people moving in or out of the community. In August 2013, the Vermont Agency of Commerce and Community Development (ACCD) produced a study on population projections through 2030. ACCD created countywide projections to be used as the basis for determining population projections for specific towns throughout Vermont. The study highlights two separate scenarios: Scenario A creates population projections where the national economy is generally healthier (as in the 1990s); Scenario B creates population projections where Vermont sees higher rates of in-migration (as in the 2000s), as shown in Table 2 below for Pittsfield and neighboring towns:

Table 2: Population Projections, 2010-2013

		2010 Population	2020 Projection	% Change from 2010	2030 Projection	% Change from 2010
Scenario A	Chittenden	1,258	1,310	4.1%	1,306	3.8%
	Killington	811	797	-1.7%	754	-7.0%
	Pittsfield	546	630	15.4%	677	24%
	Rochester	1,139	1,155	1.4%	1,158	1.7%
	Stockbridge	736	809	9.9%	858	16.6%
	Rutland County	61,642	60,791	-1.4%	58,439	-5.2%
	Vermont	625,741	653,575	4.4%	670,073	7.1%
Scenario B	Chittenden	1,258	1,261	0.2%	1,212	-3.7%
	Killington	811	767	-5.4%	699	-13.8%
	Pittsfield	546	607	11.2%	630	15.4%
	Rochester	1,139	1,090	-4.3%	1,043	-8.4%
	Stockbridge	736	765	3.9%	775	5.3%
	Rutland County	61,642	58,494	-5.1%	54,175	-12.1%
	Vermont	625,741	628,688	0.5%	620,480	-0.8%

Source: U.S. Census Bureau 2010, Vermont Agency of Commerce and Community Development, 2013

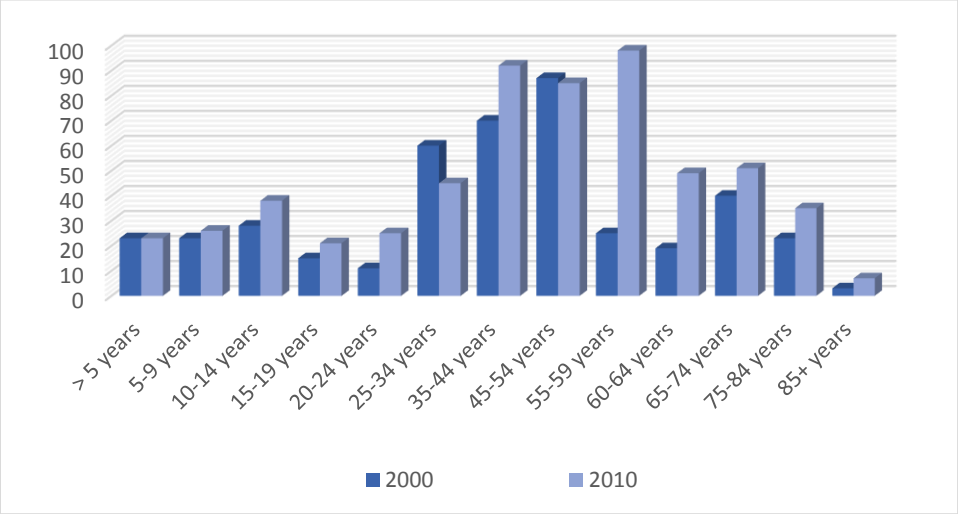
Data from the most recent U.S. Census in 2010 shows that the total population of Pittsfield has grown substantially more than its neighboring towns, Rutland County, or the state. While the Town is not immediately adjacent to more urban centers, such as Rutland or Randolph, it has still, overall,

seen increased primary housing and household growth, as is borne out by the increased population numbers. Based on this data, this trend will continue well into 2030, while many nearby towns, the county, and the state may see population numbers contract slightly or—in some cases—significantly.

C. Age of Population

In general, the age of Pittsfield's population is similar to that of Vermont as a whole, with much of our population over the age of 35. One area of difference between Pittsfield and the state is that, as of 2010, there are fewer young adults between the ages of 20 and 34 residing in the Town. Cumulatively, this segment accounted for 12.8% of Pittsfield's 2010 population, whereas it accounted for 19% of the state's overall population. Further, the percentage of Pittsfield population that is over the age of 35 was 16.4% higher than the state's at 76.4%. Indeed, the number of residents aged 55 and older has more than doubled, and totaled nearly half of the Town's 2010 population. This, in part, reflects the fact that there is a high level on emigration to Pittsfield from individuals approaching or already in retirement in addition to the numerous second-home owners that have opted to become permanent residents in the Town.

Figure 2: Population by Age Group, 2000-2010



Source: U.S. Census, 2000 & 2010

Census data also reflects the fact that Pittsfield, like many towns in Vermont, has seen the continued departure of young adults. The population segment that saw the greatest population decrease from 2000 to 2010 was that of 25 to 34 year olds, which dropped by 25%. In contrast, the number of 20-24 year olds more than doubled, which is a marked turnaround from the 50% drop the Town experienced in that cohort between 1990 and 2000.

The loss of young adults (generally between the ages of 25-35) has been a concern throughout Vermont in recent decades. Often referred to as a "brain drain," the out-migration of young adults raises socio-economic concerns. 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.

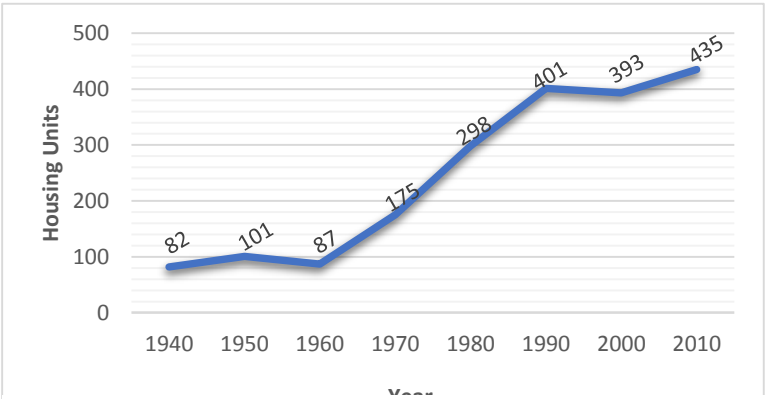
The number of 35-44 year olds grew 34% in the decade leading up to 2010, which may also correspond to and be reflected in increases in the number of school aged children living in the Town. It is highly likely that the ability for residents to choose which schools their children may attend may explain this increase (since Pittsfield has no school of its own). Pittsfield is desirable to families with young children because of school choice (see section IV for more information on Pittsfield's educational options).

In another trend that mirrors statewide trends, Pittsfield also has a slowly increasing aging population. In 2000, 15% of Pittsfield residents were over 65 years of age, which was slightly higher than Rutland County (14%) and several percentage points higher than Vermont (12.7%). By 2010, the percentage of residents over 65 years of age increased to 17% for Pittsfield, 15% for Rutland County, and 14.6% for Vermont. An aging population will need services that are not readily available in a town like Pittsfield. The need for elderly housing will also increase.

III. Housing

This section discusses the number, type, location, and availability of housing to meet the needs of the community. A housing unit, as defined by the U.S. Census, includes houses, apartments, mobile homes, and rooms for occupancy. According to 2010 Census data, there were 435 housing units in Pittsfield. In the fifty years from 1960 to 2010, housing unit numbers increased by a staggering 348 units, equal to a 400% increase. After a slight decline in housing unit growth between 1990 and 2000, housing numbers rebounded from 2000 to 2010, when the Town saw a 10.7% increase in housing units.

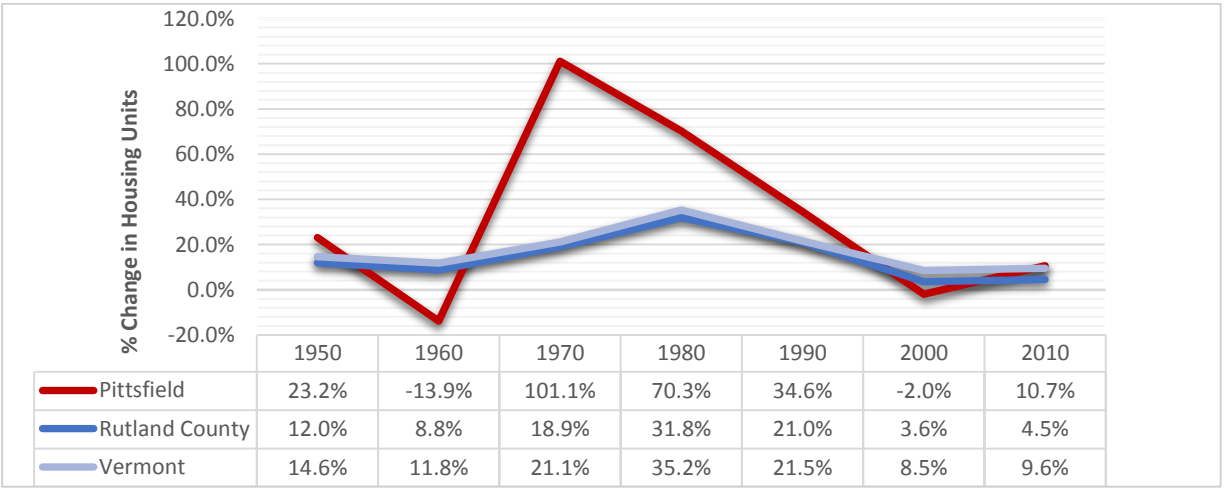
Figure 3: Total Housing Units, 1940 - 2010



Source: U.S. Census Bureau, 2010

When viewed in relation to county-wide and statewide figures for housing unit growth, Pittsfield's growth was nearly 1% higher than Vermont's growth (9.6%) and well over double that seen for Rutland County (4.5%) between the years of 2009 and 2013 (see Figure 4 below). This is a marked turnaround from the stagnant housing growth seen in the Town as of the 2000 Census when housing unit growth fell well below growth seen in the county and the state. Census housing data tells us that, on average, four new housing units were added to Pittsfield's housing stock per year between 2000 and 2010. All told, the housing growth trends seen in Pittsfield have varied far more widely than both state and county housing unit growth trends over the sixty years from 1950 to 2010.

Figure 4: Percent Changes in Housing, 1940 - 2010

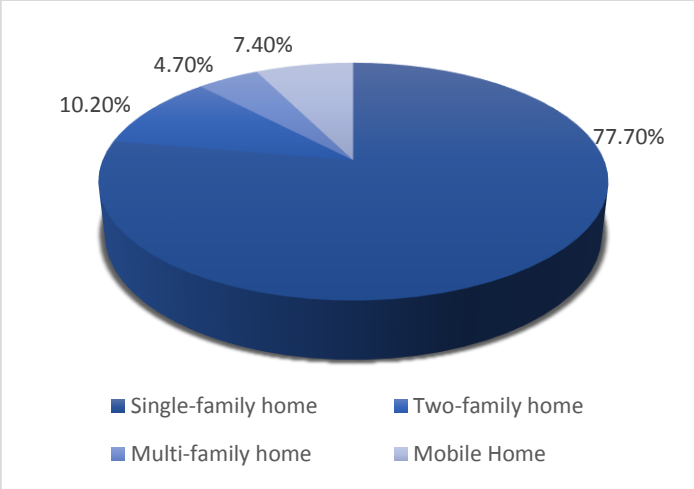


	1950	1960	1970	1980	1990	2000	2010
Pittsfield	23.2%	-13.9%	101.1%	70.3%	34.6%	-2.0%	10.7%
Rutland County	12.0%	8.8%	18.9%	31.8%	21.0%	3.6%	4.5%
Vermont	14.6%	11.8%	21.1%	35.2%	21.5%	8.5%	9.6%

Source: U.S. Census Bureau, all decennial Censuses from 1940-2010

Like most Vermont towns, the bulk of Pittsfield's housing units are single-family homes. Currently, single-family homes account for over three-quarters of the Town's housing stock, a figure that has held relatively steady over the past decade. Following the small decline in rental unit opportunities seen in the 2000 Census, rental housing unit numbers increased by 12 units as of the 2013 American Community Survey. This growth bodes especially well for younger residents. Young adults may not yet be in a position to purchase a home outright, but they may wish to settle in Pittsfield to avail themselves of the many recreational opportunities the area provides while still having relatively easy access to major job centers in the region.

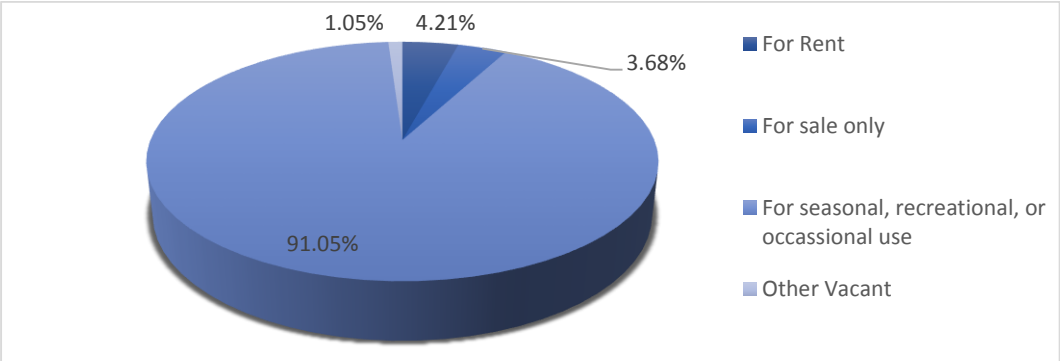
Figure 5: Housing Unit Types, 2009-2013



Source: American Community Survey, 2009-2013

As of the 2010 Census, 190 of Pittsfield's housing units were classed as "vacant" (43.7%), which is a figure that includes the many second homes nestled throughout the Town. The overall percentage of seasonal, recreational, and occasional use housing units fell to 39.8% in 2010, down from 49% in 2000. This high level of seasonal, recreational, and occasional use properties remains far from the low of 16.4% that was set in 1980 when such data was first captured in a decennial Census. While year-round residential housing figures have slowly been gaining a larger share of the housing market in Pittsfield, the recent levels of second home properties remain noteworthy because these housing units place strain on both the primary home ownership and rental markets by preventing units from being readily available to perspective year-round residents. Compounding the low availability of non-"vacant" housing on the market is the fact that much of the Town's topography and geomorphology limits the areas within which housing development can occur. Furthermore, the fact that nearly 60% of the Town is part of the GMNF prevents additional growth outside of the historic village center and existing roadways.

Figure 6: Housing Unit Vacancy Status, 2010



Source: U.S. Census, 2010

In some regions, the percentage of second homes seen in Pittsfield would be considered high, but, given the Town's close proximity to Killington's ski areas, it is not unusual. In fact, Killington's percentage of second homes is substantially higher (80.1%), and the nearby town of Stockbridge has a similar number of vacation homes as Pittsfield (34.9%). This is largely a consequence of the resort/tourist industry along Route 100 and nearby ski areas, including Killington, Pico, Okemo, and Sugarbush.

In total, there were only 60 units in the Town that were renter-occupied between 2009 and 2013 (see Table 3 below). At 25.7% of Pittsfield's housing stock, this was much lower than Rutland County, Vermont as a whole, or the neighboring town of Rochester (which is not directly adjacent to a ski town). However, demand for rental units in Pittsfield appears to be lower than many other areas in the state despite the aforementioned growth in rental units. The vacancy rate for rental properties in the Town stood at 11.4% between 2009 and 2013, similar to most neighboring towns (with Killington being an outlier due the nature of its vacation rental market). This indicates that Pittsfield's rental housing market is not as tight as certain other places in the region or statewide.

Table 3: Housing Occupancy, Pittsfield & Surrounding Areas, 2009-2013

	Total Units	*Owner-occupied*	*Renter-occupied*	*Vacant Units*	*Second Homes*	*Homeowner Vacancy Rate*	*Rental Vacancy Rate*
Pittsfield	430	74.3%	25.7%	44.0%	41.6%	1.1%	11.4%
Chittenden	665	82.2%	17.8%	27.5%	24.6%	2.0%	9.5%
Killington	2,665	73.8%	26.3%	85.0%	64.9%	4.4%	77.6%
Rochester	798	66.9%	33.1%	37.8%	29.6%	3.8%	9.9%
Stockbridge	499	81.3%	18.7%	39.9%	36.1%	0.0%	11.1%
Rutland Co.	33,725	69.7%	30.3%	23.6%	16.5%	2.1%	11.8%
Vermont	322,915	71.0%	29.0%	20.4%	15.0%	1.8%	5.6%

Source: American Community Survey, 2009-2013

While the vacancy rate for rental properties is high compared to some other areas in the state and region, the market for home sales is very tight. At a vacancy rate of 3% or lower, rates are considered to be a "functional zero." The implication here is that any housing stock available at this level would be assumed to have some sort of fault that precludes it from being suitable for purchase, such as substandard living quarters. What Pittsfield's 1.1% homeowner vacancy rate reveals is that property turnover is precipitously low, making it difficult for future residents to gain a foothold in the Town's housing market.

The average tax appraisal value of single-family residences in Pittsfield can be calculated using data from the state's Department of Taxes, which provides valuations for various forms of property, based on lots that are either greater or less than 6 acres in size. Latest figures from 2014 indicate that property values for single-family residential units are significantly more expensive than both the county and the neighboring towns of Rochester and Stockbridge. This is likely attributable to the proximity of Pittsfield homes to recreational opportunities in neighboring Killington. It also reflects the aforementioned tightness in the residential housing market, which may be having the effect of raising the cost of housing in the Town.

Table 4: Average Property Values, 2014		
	Residential, <6 Acres	*Residential, >6 Acres*
Pittsfield	$201,751	$301,314
Chittenden	$227,710	$333,797
Killington	$343,610	$413,259
Rochester	$164,437	$249,519
Stockbridge	$174,107	$230,979
Rutland Co.	$178,348	$281,905
Vermont	$222,223	$322,057

Source: Vermont Department of Taxes, Division of Property Valuation and Review, 2014 Equalization Study

A. Housing Affordability

Affordable housing is defined as that which a household making the County median income could afford if no more than 30% of its income were spent on housing costs, as defined by the U.S. Agency of Housing and Urban Development (HUD). For homeowners, housing costs include payments for principal and interest on mortgage, taxes, etc. For renters, housing costs include rent and utilities. Many cling to a view of "affordable" housing as being synonymous with subsidized housing units, property tax slumps, aesthetically displeasing development, and, in some instances, crime. However, the focus needs to shift to consider whether existing housing and future housing growth can fit within the financial parameters of the average resident and their needs, regardless of age, income, or ability. In truth, ensuring that the Town's workforce can afford to live in the Pittsfield is paramount to the Town's future vitality.

Property values in Pittsfield have increased dramatically since 2000, when Census figures placed the median value of owner-occupied homes at just over $128,000. Between 2005 and 2009, property values peaked, more than doubling to $285,000. The mortgage crisis of 2008 caused housing prices to plummet; however, prices have since rebounded.

American Community Survey figures for the period from 2009 to 2013 put the median value of owner-occupied housing units at $243,600. With a median household income of $57,303, the average Pittsfield resident would only be able to afford a property valued at $198,000 (assuming a 5% down-payment, closing costs, property taxes, private mortgage insurance, and overall affordability below the 30% HUD threshold).[4] In order to purchase an average priced home in Pittsfield, annual household income would have to meet or exceed $70,246. If recent Vermont Department of Taxes data on residential home sale prices is any indication, more homes on smaller lots (under 6 acres) in the Town are being sold at affordable rates than have been seen since the economic recession/mortgage crisis in 2008 (see Table 5 below). This data, however, is entirely dependent on property sales figures, and, while encouraging, needs monitoring to assess increases in future years.

Table 5: Price of Residential Homes* in Pittsfield and Surrounding Areas (2000, 2008, 2013)										
		2000			2008			2013		
		Number Sold	*Average*	*Median*	*Number Sold*	*Average*	*Median*	*Number Sold*	*Average*	*Median*
Pittsfield	*<6 Acres*	4	$158,750	$135,000	5	$336,000	$350,000	12	$ 154,193	$ 137,500
	>6 Acres	8	$139,312	$127,000	1	$290,000	$290,000	2	$ 473,250	$ 473,250
Chittenden	*<6 Acres*	18	$152,328	$127,500	9	$330,633	$372,000	10	$ 261,113	$ 166,150
	>6 Acres	-	$0	$0	1	$495,000	$495,000	5	$ 277,900	$ 320,000
Killington	*<6 Acres*	24	$174,322	$170,250	8	$348,500	$365,000	29	$ 334,159	$ 248,150
	>6 Acres	3	$298,333	$285,000	-	$0	$0	1	$ 114,000	$ 114,000
Rochester	*<6 Acres*	10	$80,431	$76,000	6	$225,485	$204,790	6	$ 188,066	$ 186,000
	>6 Acres	1	$100,000		4	$252,125	$213,750	1	$ 125,000	$ 125,000
Stockbridge	*<6 Acres*	7	$66,642	$70,000	1	$180,000	$180,000	3	$ 83,616	$ 60,000
	>6 Acres	-	$52,605	$50,000	1	$200,500	$200,500	1	$ 259,790	$ 259,790
Rutland Co.	*<6 Acres*	752	$108,224	$90,000	434	$180,300	$159,000	541	$ 154,583	$ 133,591
	>6 Acres	83	$188,545	$154,500	59	$260,331	$220,000	135	$ 241,350	$ 185,000
Vermont	*<6 Acres*	7,132	$126,704	$110,000	4,455	$227,565	$199,000	6,585	$ 219,202	$ 189,000
	>6 Acres	1,005	$197,681	$150,000	942	$359,853	$264,000	1,712	$ 257,391	$ 210,000

Source: Vermont Department of Taxes; data excludes mobile and vacation home valuations

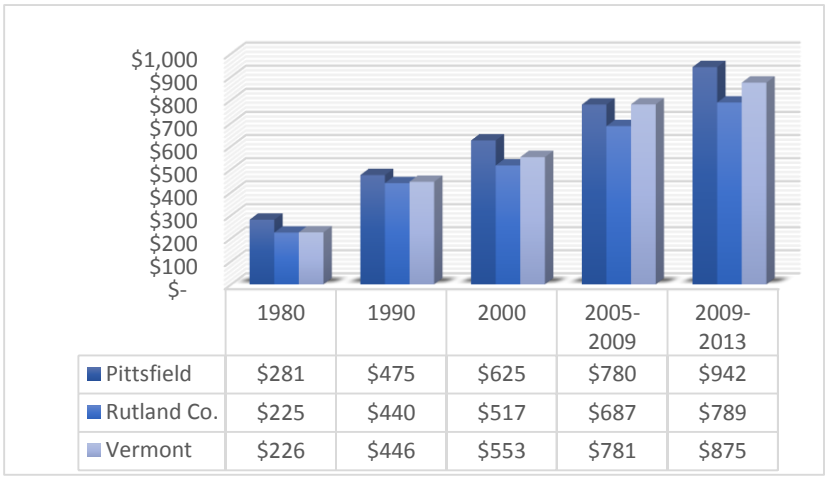
Pittsfield, like many communities, has experienced a trend toward fewer home occupants. As of 2010 decennial Census figures, the average household size was 2.23, down from 2.53 in 1990 and slightly lower than the average house size of the county and the state (2.28 and 2.34, respectively). This trend is unlikely to reverse in coming years, and may increase demand for housing. The elderly, single households, and other segments of the population are often in need of special types of housing, including affordable and accessibility modified units.

Rental Housing

Only 13% of Pittsfield's housing stock in 2000 was rentals; however, by 2013 this number had nearly doubled to over 25%, indicating increased demand for rental properties. As was the case in 2000, continued tightness in the housing market and the general lack of unoccupied units continues to drive up rental costs. By 2009, median gross rental costs had risen 30% to $788 from $625 in 2000, and had increased further to $942 by 2013 (see Figure 7 below). These rental rates have eclipsed those of both Rutland County and the state since such data was first collected in 1980.

In 2015, the HUD calculated the fair market rent for a modest two bedroom apartment in Pittsfield at $904 per month, which is lower than the aforementioned median gross rental price. In order for a renter in Pittsfield to be able to affordably rent at this rate (and only pay 30% or less of income on housing in 2015 at the HUD-defined affordability limit), he/she would have to make at least $36,160 annually.[5] If a Pittsfield resident earned the state's 2015 minimum wage of $9.15 per hour, he/she would have to work a 76 hour week to have the income required to pay just $904 per month. Given that 31.5% of Pittsfield's households made less than $35,000 as of the 2013 ACS estimates, it would likely be difficult to find affordable rental housing in Pittsfield, per HUD standards.

Figure 7: Median Gross Rents, 1980-2013



	1980	1990	2000	2005-2009	2009-2013
Pittsfield	$281	$475	$625	$780	$942
Rutland Co.	$225	$440	$517	$687	$789
Vermont	$226	$446	$553	$781	$875

Source: U.S. Census & American Community Survey

Alternative Housing Opportunities

With a pronounced need for affordable housing opportunities in Pittsfield and surrounding communities, there is a need to think creatively about ways to meet the Town's future housing needs. Any growth has to occur in a manner that is in line with the availability and capacity of existing municipal services. With available land being a delimiting factor for the Town, owing to topography and the Green Mountain National Forest owning a significant portion of land, housing growth may need to spring from within existing properties.

Pittsfield's affordable housing needs could be met through the conversion of large, older properties in the historic village settlement area into multi-family housing; expansion or refurbishment of occupied buildings to create accessory dwelling units; or even home-sharing opportunities. Accessory dwelling units are a permitted right in all Vermont towns, per statute, and are often an underutilized housing opportunity. In order to bring any of these opportunities to fruition, it is imperative that residents become aware of the many benefits of making financial investments into projects that create new affordable housing units. For instance, not only does becoming a landlord secure a long-term income source, but property valuations should increase in line with any improvements made to properties. Driving home this return on investment may prove a valuable tool in furthering housing unit growth.

B. Elderly Housing

Baby Boomers born between 1946 and 1964 started to reach the age of 60 and commence or approach retirement within the past decade. The oldest amongst them will be 84 in 2030. Over

15% of Pittsfield residents were aged 65 or older as of the 2010 Census, a figure that continues to rise. This dramatic shift in demographics will put added pressure on an already tight housing market. Expanding health care costs may leave seniors with even less money to spend on housing.

As the elderly (those 65 or older) become less comfortable with the tasks involved in managing their own home, they may turn to elderly housing. If health is an issue and some form of constant care is required, seniors will need to enter a nursing home or a residential care facility. Within Vermont there are several types of elderly care facilities that are subject to State regulation: nursing homes and residential care facilities. Nursing homes provide nursing care and related services for people who need nursing, medical, rehabilitation, or other special services. They are licensed by the state and may be certified to participate in Medicaid and/or Medicare programs. Certain 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 usually 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.

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 Pittsfield. There are very few options in Pittsfield or the surrounding area for this type of care. Elderly Pittsfield residents in need of full-time care are forced to move away from their community, with Rutland being the closest town with available facilities. Even with care facilities within a few towns' distance of Pittsfield, the homes in Rutland only provide a total of 226 beds in level III residential care, 2 level IV residential care beds, and 406 nursing care beds. Randolph, in neighboring Orange County, only has 18 level III residential home beds and 30 nursing home beds. These facilities serve a large catchment area in Rutland, Randolph, and beyond, and are, therefore, are often hard pressed to accommodate the needs of the greater regional community. This is, of course, not just a local issue. There is a lack of elderly housing throughout Vermont and the country.

Table 6: Nursing and Residential Care Facility Beds Available, 2015

	Nursing Care (II)	Residential Care (III)	Residential Care (IV)
Pittsfield	0	0	0
Chittenden	0	0	0
Killington	0	0	0
Rochester	0	0	0
Stockbridge	0	0	0
Rutland	406	226	2
Randolph	30	18	0

Source: Department of Disabilities, Aging and Independent Living

Locally, the Park House of Rochester offers Park a shared living residence, with no onsite medical care. Park House is equipped, primarily, to serve the needs of people over age 60. 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 common area. There is a regular waiting list for individuals wanting to reside in the Park House. Currently, there are no Pittsfield residents residing at the Park House, but the residence opened its doors to seniors from around the Rochester area who were displaced during Tropical Storm Irene. Park House operations are an essential service for elderly residents along the rural Route 100 byway.

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 as they grow older without having to move each time their needs increase. Considering the lack of availability of nursing homes in Pittsfield and Vermont as a whole, this may be the optimal way to address elderly housing in the future. Having the right housing includes the ability to stay active and engaged in community life, which is a great benefit not only to the individual, but to the community as a whole.

Considering the high costs of housing and the high maintenance costs associated with older housing stock in Pittsfield, aging in place in Pittsfield may not be an option that can be considered by some older residents. Further, having elderly residents continue to age in place requires that there are adequate services in place to accommodate residents remaining in their homes as they age, including home nursing and transportation needs. For those living farther from the village center, access to these essential services can become difficult to manage. There is also the added concern that there may not be the necessary housing unit turnover that would otherwise permit new residents to move to the town if a substantial share of the housing stock is occupied by long-term tenants. Providing housing that is age and income inclusive while also centrally located has been encouraged by the likes of the Vermont Housing Finance Agency as a means of addressing affordable and elderly housing needs.

Several municipalities have benefited from planned retirement communities. Innovative land use policies and controls to address special needs are encouraged. Such land uses are best located close to the village center where basic services are available. Determining the most appropriate locations within Pittsfield to either develop or reuse existing properties for this purpose is an important first step in considering building such a community.

Seniors who are still able to maintain an active lifestyle have the Quin-town Center for Senior Citizens as a source of educational programs, live music, and other types of community interaction. The Quin-town Center also offers meals served at the Hancock Town Hall as well as a "Meals on Wheels" program.

C. Goals, Policies and Recommendations

Goals

1. Provide Pittsfield residents access to safe, sanitary, and affordable housing.
2. Retain existing housing and construct new housing which meets population growth in line with the availability and planned growth of public services.
3. Preserve historic structures in ways that appropriately serve the need for housing that is balanced with energy and thermal efficiency improvements.

4. Create additional rental properties throughout Town, provided that they do not put an undue burden on Town services and facilities.
5. Develop affordable housing opportunities, such as accessory dwelling units, within the Town's village center for a range of ages and income levels that provide for all population segments, including the Town's elder and special needs populations.
6. Encourage the creation and use of accessory dwelling units throughout the Town.

Policies

1. Ensure 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).Housing that is permanently affordable for a mix of households having moderate, low, and very low incomes is encouraged.
2. Appropriately sized lots, accessory dwelling units, and clustered developments that promote the creation of affordable housing are encouraged.
3. The Town should collaborate with businesses and non-profit housing corporations to help Pittsfield better meet the demands for affordable housing.
4. The provision of housing for special needs population, such as the elderly and physically handicapped, is encouraged.
5. The location of primary and vacation housing, related amenities, and land uses shall be planned with due regard for the physical limitations of the site and location of current or planned public and private services, such as roads and commercial/service centers.
6. Affordable housing opportunities, such as multi-family housing buildings and manufactured homes, are to be permitted in areas allowing for single-family dwellings.
7. Encourage conversion of larger homes into multi-family housing units to meet affordable housing needs of Town residents where the historic character and integrity of the building or surrounding neighborhood is neither destroyed nor diminished.

Recommendations

1. New housing growth in areas with public infrastructure and services shall be planned in a manner that reinforces Pittsfield's historic settlement pattern.
2. The development of multi-family housing, special needs group homes, and elderly housing shall be encouraged in the designated village center in close proximity to Town services.
3. Innovative energy efficiency standards and practices in housing rehabilitation and new developments should be reinforced and encouraged.

IV. Education and Childcare Services

A. Overview

Pittsfield voted to discontinue providing education locally in 1968, closing their school in 1969. Over the next two decades, Pittsfield operated a joint contract elementary school with Stockbridge. In 1985, Pittsfield seceded from the Stockbridge joint contract, and began offering school choice for all students, K-12. The Town is one of twenty towns in Vermont to have no school of its own.[6] Tuition is paid in full by the Town for students seeking education through accredited public schools. A portion of tuition is paid for those wishing to send children to accredited private schools. Education at sectarian schools is not be funded at any level.

Heading into autumn 2015, Pittsfield anticipates having 80 students tuitioned in schools in nearby towns, at a cost of over $14,000 per student. Schools that receive students from towns like Pittsfield set the tuition rate based on a number of factors, including staffing and operating expenses. In order to pay for the tuition costs, Pittsfield levies taxes as part of the annual Pittsfield budget. Increases in the number of students in the Town coupled with the increased costs in educating students outside of the community has driven up the level of funding needed. By July 2015, Pittsfield will be moving into the Windsor Central Supervisory Union (WCSU) in Woodstock, while still retaining school choice for residents. Such a move will bring lower administrative costs and a corresponding reduction in tax burdens.

Pittsfield has had an increase of 7 children since the 2009-2010 academic year. While that figure may not appear to be a dramatic increase, it is accompanied by a $4,250 per pupil tuition increase. What this amounts to is a 43% increase in the cost of teaching Pittsfield's youth population over a six year period. It is undoubtedly true that parents often heavily weigh the quality of local school opportunities when selecting a community to move to. Having choice in schooling for children is a large draw for many families to Pittsfield and other choice towns in Vermont. Nationally, many families are willing to pay a premium to live where their children will have access to better schools; however, most Vermont towns offering school choice are very rural, with housing prices often being around $75,000 lower in towns without schools.[7] While this is not wholly applicable to Pittsfield, with its median home value above the state's, the Town does have more choices than some choice towns for school opportunities in addition to having enviable lifestyle benefits.

Table 7: Pittsfield Tuition for School Year 2015-2016

School	*Number of Pupils*	*Tuition Amount*
Barstow	1	$14,700
Rochester Elementary/High School	4	$80,000
Killington Elementary	38	$486,020
Stockbridge	2	$28,800
Rutland Town	2	$25,800
Stafford Technical Center	1	$13,221
Sharon Academy	10	$144,000
Woodstock	17	$272,000
Rutland High School	5	$70,000
TOTALS	**80**	**$1,134,541.00**

Source: 2014 Pittsfield, Vermont Annual Town and School District Report

B. Act 60

Vermont is unique in the way it addresses the funding of schools. With the passage of Act 60 in 1997 (subsequently amended), the state reformulated the way education funding was collected and distributed among its towns. In an effort to ensure equality amongst schools from town to town, education taxes are collected from each town at the same rate and redistributed to schools, the principle being that poorer towns were unable to provide their children with the same level of education as richer towns. Thus, Act 60 (and subsequently Act 68) redistributes money from the pool to the poorer towns in an effort to bring them up to par with wealthier schools. Presently, all towns, regardless of size or property valuations, are held to the statewide education tax rate of $1.10. Revenues are then dispersed via state block grants, which equaled roughly $5,200 per pupil for the 2000-2001 academic year (when Act 60 fully came into effect). Towns then cover any remaining difference in student tuition through local taxes.

For some towns, this has meant an increase in the amount of education taxes that they have to pay into the general education fund. Because there is a direct correlation between property values and the number of students in a towns school system, a town with high property values and few students (such as Pittsfield) will put more into the education fund than they take out, making them a "sending" town. The effect of this situation is that Pittsfield's tax rate is comparatively high.

C. Childcare

According to a Department of Children and Families (DCF) directory of registered childcare facilities in Vermont, Pittsfield has neither licensed childcare providers nor registered childcare homes. The Vermont DCF has created two classifications for registered childcare facilities in the state, as follows:

- **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.

Due in part to the lack of facilities within Pittsfield and the high costs associated with childcare, it is assumed that most residents currently arrange for care outside of a designated facility. Alternatively, many residents likely opt to take their children to childcare facilities beyond the borders of Pittsfield to neighboring towns like Killington or Stockbridge. Table 8 below lists nearby towns, including two large local job centers (Randolph and Rutland), and their accredited

childcare facility numbers. Any future economic development that may occur in the Town or any significant increases in working families with young children will make the need for childcare within Pittsfield more pronounced. At such a time, due consideration should be given to assessing the need for childcare for residents.

Table 8: Pittsfield Area Childcare Facilities, 2015[8]

	Licensed Providers	*Registered Homes*
Pittsfield	0	0
Chittenden	1	1
Killington	3	0
Rochester	2	1
Stockbridge	2	2
Rutland	28	28
Randolph	5	4

Source: Bright Futures Childcare Information System, 2015

D. Adult Education

Providing adults with academic programs that help advance careers and keep minds occupied and sharp into old age is a vital service for residents of Pittsfield. While academically enriching, such programs also provide a much needed intellectual and emotional outlet. Presently, adult and continuing education opportunities in Pittsfield are limited. However, there are many towns within a roughly 20 mile radius from the Town that provide educational opportunities to adults, either through accredited degree programs, certificate and associate programs, or other opportunities. A sampling of these opportunities includes those in the nearby town of Randolph, which is home to both Vermont Technical College (VTC) and Randolph Technical Career Center (RTCC). Additionally, the Stafford Technical Center (STC) in Rutland offers adult and continuing education to anyone over the age of 16.

Vermont Technical College, located in Randolph Center, provides students with both full- and part-time academic programs that cover a range of subject areas, from computer programing and technology to agricultural and health care services qualifications. Degree certificates can be earned for either associates degrees or traditional four-year bachelor degrees. With respect to the school's nursing program, successful course participants may earn a one-year Practical Nursing Certificate.

The Randolph Technical Career Center is a fee-based learning center located in the heart of Randolph Village, and operates as part of the Randolph Union High School. Unlike many other institutions locally, this program offers one-off courses to adults without the need to complete a degree or certificate program, making it uniquely poised as a brick-and-mortar institution that provides hands-on instruction without a lengthy and costly curriculum. Classes are available in many academic areas, much like VTC, including mechanical technology, woodworking, and computer technology. Additionally, the school teaches courses in small business management, bookkeeping, the arts, and foreign languages. RTCC also provides locals with free basic computer instruction on a routine basis.

The Stafford Technical Center is adjacent to the Rutland High School, and is currently home to one Pittsfield student under the school choice program. The adult education programs are similar

to those provided by RTCC, and include business and career development classes, arts and crafts courses, computer technology, culinary arts, digital media and art, languages, literature and creative writing, medical education, and drivers education. All programs are fee based and cater to a range of knowledge levels.

For the elderly, physical barriers, namely transportation, exist that may prevent active participation in educational opportunities. Many often lack the technological literacy to competently navigate the world of online learning as well. However, for those who do have access to a computer, they may be able to take classes online or at the local library that are either offered by the University of Vermont or another institution. Additionally, for those with access, there are an array of course opportunities through the Osher Lifelong Learning Institute at Dartmouth College in Hanover.

E. Goals, Policies and Recommendations

Goals

1. Provide for a safe and secure learning environment where quality educational opportunities are provided to all students of all ability levels and ages.
2. Provide the best education to our students at a reasonable cost to the Town's taxpayers.
3. Ensure that the Town is fully able to budget for and afford tuition expenses and, is prepared to handle any unexpected increases in costs.

Policies

1. Land development that is likely to result in large numbers of school children shall be phased or planned so as not to place an undue financial burden on the capacity of the Town to provide education services.
2. Ensure sufficient and appropriate educational opportunities of students.
3. Promoting access to continuing and adult education opportunities is encouraged.
4. Support private sector efforts that seek to establish childcare facilities to meet the needs of Town residents.

Recommendations

1. The Town is encouraged to work with school authorities where Pittsfield students are tuitioned to maintain safe transit opportunities.
2. The Town shall ensure that all of the needs of all of the Town’s children are incorporated into School Board budgetary planning efforts to advance free and appropriate education.

V. Utilities and Facilities

The provision of services and the routine maintenance and operations of public facilities in Pittsfield are the province of the local government. As such, the costs associated with support and maintenance of public facilities and services constitute a large percentage of the Town's annual budget.

It is imperative that a town plan for future municipal expenditures for infrastructure and municipal equipment. In light of this, Vermont statute enables towns to create a Capital Budget and Program to direct and plan for long-range capital planning, though not all towns have such a budget and program formally in place. These plans help guide the needs of capital fundraising efforts, while designating specific accounts for purposes outlined in a long-range budget. Furthermore, capital budgets and programs help direct efforts by prioritizing project needs in towns to where investments are most needed. Any such budgets and programs must be consistent with municipal plans, and shall include an analysis of the sum effect that capital investments may have on a community's operating costs.

Future capital investment planning should take the energy efficiency of proposed projects into account, whether that is for a routine roof replacement, foundational repairs, or other needs. Incorporating these improvements into proposed projects will ensure that overall improvement costs are minimized by completing energy improvements in conjunction with regularly planned capital projects rather than accomplishing each as a standalone task.

Pittsfield does not currently have a formal Capital Budget and Program to guide municipal infrastructure and equipment expenditures. However, the Town does maintain capital fund accounts for purposes of equipment and facilities that is annually funded at Town Meeting as part of the budget. Whether the Town chooses to adopt a formal Capital Budget and Program in the future or not, the Planning Commission may make recommendations to the Selectboard on the direction of future capital investments.

A. Municipal Buildings

Town Office

Prior to 2012, the Town Office was located in the basement of the Municipal Building. The office was forced to move to the Town Hall in September 2009 due to ADA compliance issues and environmental health concerns. Following many years of planning and the acquisition of an $845,000 municipal bond in 2010, substantial Town Office renovations were completed in October 2012.

The odyssey of the Town Office building began in 1883, when it was first built as a schoolhouse on the opposite side of Route 100 from where it now stands. The building was moved to its present site in 1934, and remained a schoolhouse until 1969. In 1973, the main floor was designated as the town library, which was in use until the recent renovation project began. A fireproof vault was installed in the 1970s, allowing the basement to be converted to the Town Office. This office was

downstairs, difficult to access, lacked handicap access, and was outgrowing its space for quite a while. In 2009, the office was closed by the Selectboard due to mold issues.

From 2009 to 2012, the Town Office was moved into the Town Hall building, and a temporary vault was used for storage of the town records. To ensure that the Town Office would regain its own space, renovation plans then took on an urgency. Pittsfield voters elected to renovate the building as opposed to constructing a new building in its place. An architect was hired and plans were drawn up to make the building handicapped compliant, move the library to the upper floor, build a new fireproof vault, and move the Town Office to the main floor. Since this was a costly project, the Town voted for a bond to finance construction. In April of 2010, with a financing plan in place, the rehabilitation project began, allowing the new office to take shape.

The Town Office renovation was completed in October of 2012, at which point the Town Office and Library were able to return to the building. Renovations were a long time coming, but well worth the trouble. Pittsfield now has a vault that is large enough to accommodate the town records for many years to come, a well-lit and accessible Town Office, and an elevator to access all three floors. The lowest floor is a brightly lit, dry space that is used as meeting room space for many of the town commission meetings. What's more, the Town Hall has been returned to its original purpose, and now displays artifacts from the local historical society.

Pittsfield has gone to great lengths to modernize its Town Office facility, and, as stated, has planned appropriately for the future so as to accommodate all individuals and town records. It provides a much more pleasant and healthy workspace for the town clerk and assistant clerk (who are available three days a week, Tuesday through Thursday), and the building is much more easily accessed by the general public. Renovating this building was a major undertaking that has done Pittsfield proud, preserving and repurposing a truly historic structure in the heart of the community.

Library

The Roger Clark Memorial Library has existed since 1901, and has been managed and staffed entirely by volunteers since that time. The library was located on the first floor of the Pittsfield Municipal Building, and was dedicated in September, 1973. During renovations of the Town Office building, the library was closed. It is now located on the second floor of the newly removed Town Office Building.

The library strives to be a multi-generational community center that fosters traditional, cultural, creative, and technical literacy amongst Pittsfield's residents. It offers a mix of fiction, non-fiction, Vermont-themed literature, DVDs, and children's magazines and books. In the past decade, the Library's collection of materials has grown substantially, with hundreds of new titles added. The library currently houses 4,200 volumes, and is currently open two days a week. High-speed internet access is available at two computer workstations, and book downloads are available from Listen-Up Vermont with a patron number supplied by the library. The library offers a wide range of programs for all ages year-round, and is also handicap accessible for all residents. Thanks to a generous donation in 2015, the library intends to offer some adult lifestyle seminars.

Town Hall

The Pittsfield Town Hall (formerly a church) was built in 1830. It acts as the traditional place for all community activities. The Town Hall has a lift which was installed in 2002 that reaches all floors for handicapped accessibility. A new economical and fuel-efficient water heater was installed in 2008. The hall has a small stage and a sizeable kitchen, both of which have been used for local functions. The Town does rent the facility out for special events. Additionally, the Town Hall and Town Office buildings are served by a common well that was drilled in 2000.

In the event of a disaster, the Town Hall can be used as an emergency shelter. The building can accommodate up to 25 people during a disaster. While it lacks any back-up power generation facilities or showers, it does provide facilities for food services. The Town is making strides to improve the thermal efficiency of the Town Hall, and has been working diligently to better insulate the building. Each year, residents vote to allocate funds to finance these efficiency improvements, with $19,000 set aside for 2015-2016.

Town Garage

The Pittsfield Town Garage is located just outside of the village center on Route 100. The building is approximately 30' by 50' in size, and dates to 1973. There is a storage shed on site that is somewhat larger than the main garage building at 30' by 60', with an additional sand shed that is 30' by 100'. The Town road crew currently owns two dump trucks, one bucket loader, and a motor grader. The building adequately meets the Town's immediate and short-term needs, with no known, major building modifications, additions, or equipment acquisitions in the pipeline. However, as previously mentioned, the Town annually allocates funds for equipment acquisitions and repairs.

B. Parks and Public Lands

Recreational opportunities abound in Pittsfield. Whether it is enjoying town-owned park space along the Village Green, access to the local rivers, visiting nearby ski resorts, or venturing into the adjoining Green Mountain National Forest (GMNF), residents have a wealth of recreational opportunities to enjoy year round. Continued access to these sites and opportunities is important to the Town, as its rural, riparian, and mountainous terrain is integral to the social and economic fabric of the community.

Parks

Pittsfield owns two parks: the 5-acre field situated behind the Town Hall and the original park/common bounded by Route 100 and Park Street. The field is available for summer little league, basketball, and other playground activities (including horse shoe pits). The park is used principally in the warmer months for band concerts, auctions, bazaars, and flea markets. Pittsfield residents take a great deal of civic pride in the upkeep and appearance of their park grounds, bandstand, and war memorial. With respect to planned upgrades to Town-owned recreational areas, there is an interest in resurfacing the basketball court located in the field behind the Town Hall, although no cost or timeframe have been determined for this work.

Following Tropical Storm Irene in 2011, the Town bought out a number of properties that were severely damaged by flood waters. With Federal Emergency Management Agency (FEMA) funding and technical assistance from both Two Rivers-Ottauquechee Regional Commission and the White River Partnership, Pittsfield has drawn up plans to reuse three contiguous properties located off of Route 100 as public park space. This project will allow for improved public access to the Tweed River, while also restoring the riparian buffer along the waterway. This project is in the planning stages.

Public Lands

Approximately 8,000 acres of all land in Pittsfield is part of the GMNF, comprising around 60% of the Town's acreage. Activities within the GMNF are owned and managed by the U.S. Forest Service. Parts of the GMNF are open to the public for recreation including hiking, biking, snowmobiling, and camping. In recent years, many improvements to access on these federal lands have occurred, including work by the Vermont Youth Conservation Corps to improve mountain biking trails (on the Hayes Brook Trail off of Upper Michigan Road) and snowmobile system improvements completed by the Tweed Valley Travelers.

C. Cemeteries

The Town of Pittsfield is home to one public cemetery, commonly referred to as the Pittsfield Cemetery, and one known private cemetery on Forsha Road that is maintained by the Town Historical Society. It is located off of Route 100, across from the Village Green, and is owned by the Town. It is currently considered to be in excellent condition, with a large number of available plots. A new section was recently opened at the cemetery to accommodate future needs. The proposed cemetery fund budget for 2014 was projected to be $9,283, most of which was allocated for wages and stone cleaning line items. Each year, a Memorial Day remembrance ceremony is held at the cemetery.

D. Public Sewer Systems

To date, there are no publicly-owned sewer systems in the Town. Homeowners and businesses provide their own disposal system, most frequently consisting of a septic tank-soil leaching arrangement. Private septic systems are regulated by the State of Vermont under the Potable Water and Wastewater permitting program.

E. Public Water Systems

There is no publicly owned water system in the Town. Because of the high costs associated with the construction, operation, and maintenance of community water systems, even with the aid of federal and state funding, Pittsfield will likely continue to rely on individual and/or private water systems. It is therefore critically important that all private water sources be protected from existing or potential contamination.

F. Communication Facilities

Landline Communications

Most of the telephone related services in Pittsfield are still offered via traditional telephone lines and poles (landline) despite the increased popularity of and reliance on cellular service as a primary means of telecommunications. Coverage over landlines in Pittsfield is provided exclusively by Fairpoint Communications, Inc.

Cellular Communications

There are no cell towers located in Pittsfield, but there is spotty coverage in some areas in Town. Cell phone service in Pittsfield largely comes from towers located to the south in Killington on Pico Mountain, providing both AT&T and Verizon Wireless customers some reception. All told, it is unknown how many residents and local businesses have access to adequate cellular reception, particularly in light of the spotty nature of reception in areas beyond the Route 100 corridor.

Pittsfield has a cell tower ordinance that would guide the location and 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. A Section 248 review addresses environmental, economic, and social impacts associated with a particular project, similar to Act 250. In making its determination, the Board must give due consideration to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, it is appropriate that this 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 located in Chapter IX, Section E of this Plan.

High-speed Internet

There are presently four ways to access the internet in Pittsfield: landline, DSL, satellite, and cellular internet.

- **Dial-up** → Dial-up access is still a commonly available service to residents. However, speeds over a telephone modem are very slow, and, given the need for bandwidth in day-to-day use of the internet, it is not practical for more than checking e-mail. The faster and more stable options available to residents are via satellite modem and DSL.

- **DSL (Digital Subscriber Line)** → DSL is very similar to cable internet 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 the 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 in order 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. As is the case with cellular phone service, this internet service is limited for many Pittsfield residents.

It is likely that as many Pittsfield households only have access to the internet 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.

In recent years, fiber internet has become the highest standard of reliable internet service globally, touting the fastest connection speeds available. At present, companies such as Comcast, provide subscription-based fiber internet services, faster than DSL, to some residents in the region; however, not within Pittsfield. The East Central Vermont Community Fiber Network (EC Fiber) has approached towns in the Upper Valley and surrounding areas, including Pittsfield, to extend a fiber optic network into the Town. EC Fiber has developed a long-term plan to extend fiber optic cable throughout the region. EC Fiber lines have yet to reach Pittsfield residents as of 2015, but there is still every intention to bring the Town online with this community-owned service.

G. Municipal Solid Waste Management

The Town is a member of the White River Valley Solid Waste Alliance (WRVSWA), which was created in 1989 to provide waste management solutions for communities in the area. The WRVSWA includes the towns of Barnard, Bethel, Hancock, Granville, Pittsfield, Rochester, Royalton, and Stockbridge. Under the provisions of Act 78, Vermont's Solid Waste Management Act, a Solid Waste Implementation Plan (SWIP) was jointly adopted by these communities and approved by the Agency of Natural Resources in 1991. In May of 2008, the Vermont Solid Waste Management Division accepted a revised and updated Solid Waste Implementation Plan written to replace the version adopted in 1991.

In 2012, the Vermont Legislature passed Act 148, commonly referred to as the Universal Recycling Law. This new legislation bans the disposal of recyclables in landfills. Roll out of this legislation will be an iterative process, with new rules coming in to effect in the summer of 2014 and continuing on to the summer of 2020. Over this seven year time frame, conventional recyclables (glass, aluminum, plastics, and paper products) will become accepted at all transfer stations and other waste facilities, and organic materials (food scraps, yard waste, and clean wood

debris) will eventually be diverted to certified facilities. As a result of this legislation, a new statewide Materials Management Plan (MMP) was written, and came into effect in June 2014. Waste management districts are now in the process of rewriting their and adopting revised SWIPs to conform with the latest MMP. It is unclear at present what management issues, if any, the WRVSWA will face with respect to capacity issues as each new waste management milestone from Act 148 is phased in.

Pittsfield lacks any waste facilities for recycling, composting, or that serve as a transfer station or landfill. Effective July 1, 2015, residents are responsible for private waste removal. Residents have the option of either through a private hauling company or by taking waste to either the Rutland transfer station or the Royalton (Waterman Road) transfer station. The latter facility is owned and operated by the Towns of Bethel and Royalton in accordance with approvals and certifications from the Agency of Natural Resources.

In addition to paying for town-wide trash removal, Pittsfield makes annual payments to Bethel/Royalton Landfill for use of the facility and to the WRVSWA. Solid waste charges for the Town in 2014 were $39,325, with a program management fee of $5,757.54. The cost of refuse removal was $50,700, with an additional $7,920 for recycling. All told, refuse expenditures for 2014 were $103,672.99.

Pittsfield's current capacity to handle its solid waste is adequate for the short-term future, although it is unclear how the Universal Recycling Law changes will impact the Town. It is in the long-term interest to continue to participate in the WRVSWA and to coordinate waste management and recycling programs with neighboring communities and the private sector to reduce costs to Pittsfield's residents and businesses while assuring sound management practices. Furthermore, the general public needs to be continually educated as to the value of recycling of glass, newspapers, metals, plastic, cardboard, and other materials, particularly with new statutory requirements. Pittsfield has a mandatory recycling ordinance, which addresses source separation of trash, but more can be done to make recycling options more ubiquitous throughout Town and reinforce the need to keep recyclables from the waste stream.

F. Goals, Policies and Recommendations

Goals

1. Provide public services and facilities that meet the community's needs at a rate that does not create an undue burden on taxpayers or on the scenic, environmental, and cultural resources of the Town.
2. Encourage universal broadband and cellular communications access to all Town residents in a manner that respects the rural character of the Town.
3. Reduce municipal and household waste through reuse and recycling.

Policies

1. The Town shall continue to provide residents with safe, effective, responsive, and affordable municipal infrastructure, facilities, and services that are consistent with other Town goals, and, wherever possible, encourage and work with other public and private utility or service providers to do the same.
2. The Town will continue to effectively plan for future investments and upkeep of community facilities so as to avoid overburdening taxpayers due to unexpected maintenance costs.
3. Continue to support efforts to expand high-speed internet coverage for the benefit of all citizens in Pittsfield.

Recommendations

1. The Planning Commission, with assistance from the Selectboard, should consider the development of a Capital Budget and Program for the purposes of planning for future municipal investments in utilities and facilities that is consistent with this Town Plan.
2. The Town shall continue to participate in the WRVSWA, and support its evolving programs.
3. The Town should support continued efforts to expand broadband and cellular service and access to the Town when such growth does not place an undue adverse impact on the rural character of the community.

VI. 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 Pittsfield, are served by small facilities that can assist residents with general health care needs, and are typically situated in close proximity to larger medical facilities that are equipped to handle more complex acute care and specialized services.

The lower population density of Vermont's rural countryside and the larger 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 may take longer to arrive than in more populated locations, risking potential loss of life.

There are very limited options in terms of health care services in a Town of Pittsfield's size. Most residents seek their health care services in other towns, including Rutland, Randolph, Bethel, and Rochester. Gifford Medical Center hosts health clinics in two neighboring towns: the Bethel Health Center and the Rochester Health Center. Both provide primary health care services to nearby communities under the auspices of the Gifford Primary Care arm of the medical center. There is a large-scale community hospital in Rutland (Rutland Regional Medical Center), and a tertiary care facility in Lebanon, NH (Dartmouth-Hitchcock Medical Center).

B. Pittsfield Volunteer Fire and Rescue

The Pittsfield Volunteer Fire and Rescue is a public organization that serves Pittsfield. It provides free service to the Town, and is financed through the Pittsfield town budget, community fundraising activities, and donations. The department is widely considered to be equipped to meet most of the Town's needs, and is under sound leadership, as evidenced by the high level of service it provides to the community. The department is a member, of the Rutland County Mutual Aid Organization mutual aid network, and also works cooperatively with the Stockbridge Fire Department. In the event of more catastrophic event, the Town is heavily reliant on neighboring partner towns for more technical support, manpower, and equipment.

Staff

The Pittsfield Volunteer Fire and Rescue squad is staffed by volunteers. The squad needs additional volunteers to serve, but, like many volunteer fire departments in Vermont, finding new members is increasingly difficult. The effects of an aging population, the increased number of residents working outside the town limits, and the many State and Federal requirements for training have taken a toll on the pool of interested volunteers. While the Town appreciates the efforts of the volunteers, the decreasing numbers of available and interested volunteers is a concern.

Fire Station and Equipment

The Pittsfield Fire Station is located 3596 Route 100, in the village of Pittsfield. The station was built in 1970, and contains three bays for fire and rescue vehicles. The fire station was dedicated to Eugene Martin at the Memorial Day ceremony in 2010. The station and all departmental equipment, including fire engines and pumpers, are owned by the Town.

In the event of a disaster, the fire station will double as an emergency shelter. In summer months, the station can accommodate up to 25 residents, although fewer can be accommodated during winter months. Of the three designated shelters in Pittsfield, the fire station is the only one that has a back-up power generator. However, the station lacks ample food facilities and showers to meet public needs in the event of a disaster.

Funding

The Pittsfield Volunteer Fire and Rescue squad is a municipal department. The Selectboard appoints chiefs and officers upon the recommendation of the department. The Fire Department's budget is included as part of the annual municipal budget. The Town maintains a general fund to that may be used, in part, to maintain and/or acquire new equipment when needed. Presently, there are no planned replacement needs for the equipment or upgrades/alterations to the station outside of general annual utility and maintenance needs set at $6,000 for 2015. The fire department does, however, intend to spend $4,000 on equipment in 2015, and a further $1,800 on communications.

C. Police Protection Services

Pittsfield has two constables, each elected by town vote on Town Meeting Day. In addition to the constables, the Town contracts with the Rutland County Sheriff's Department to provide expanded coverage throughout Town. A portion of any traffic fines or tickets issued by the Sheriff's department in Pittsfield are returned to the town in order to offset the cost of the service. Supplemental police coverage in Pittsfield is provided by the State Police out of the Rutland barracks.

With the increased mobility of Pittsfield's population, it is recommended that the Town's citizen's periodically review the law enforcement system that is in place to determine if a more sophisticated approach is warranted to maintain a reasonable level of law and order. For instance, the Town's constables lack the legal authority to enforce the law, and are dependent upon the availability of local sheriffs and state troopers.

D. Emergency Medical Services

Pittsfield FAST Squad

Emergency medical calls are answered initially by the Pittsfield Fast Squad, which has a few technicians trained in handling situations of a medical nature. The purpose of the fast squad is to provide immediate response to emergencies while White River Valley Ambulance is en route to

an accident or situation. EMS services in Pittsfield respond to calls using a rescue truck housed at the fire house, and are trained in vehicle extrication skills. Like the fire department, the FAST squad is a town organization receiving funding through the annual municipal budget.

There are concerns that the lack of staffing on the Pittsfield FAST squad may lead to deterioration in the quality of EMS coverage in town. Because most residents work outside of Pittsfield, it is possible that there might not be coverage during the day in the event of an event that requires FAST squad attention. Periodically, trainings in First Response are available to potential members, but the cost for this training is expensive.

White River Valley Ambulance

White River Valley Ambulance, Inc. (WRVA), is a private, non-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 Pittsfield, WRVA covers Barnard, Bethel, Braintree, Brookfield, Granville, Randolph and Stockbridge. WRVA currently has three fairly new ambulances for their response needs. The Town of Pittsfield pays WRVA for its services. The per capita rate of funding required to support continued WRVA services stood at $59.95 in 2014. 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. WRVA is located in Bethel about 17 miles away from Pittsfield, which may cause critical delays in services to citizens in need.

DHART

The Dartmouth-Hitchcock Advanced Response Team is a medivac service based in Lebanon, NH at Dartmouth-Hitchcock Medical Center, providing 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

Disastrous events, both natural and man-made, can occur at any time in Pittsfield, with little to no warning and with wide-ranging impacts for both the Town and the entire region. Proper emergency management practices can help lessen the impacts of future events in the town, in addressing four key areas:

- **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** → refers to the initial emergency response to save life and property during and immediately after the disaster, and is initiated by local emergency crews and then followed up by outside forces if necessary. Response operations are greatly enhanced by proper preparedness. Most emergencies of any scale will require towns to work together, and often to work with state or federal agencies. Practicing with all of these partners before an actual emergency is critical to smooth emergency operations.
- **Recovery** → constitutes 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 more state and federal assistance than is commonly thought, and requires a substantial coordination effort at the municipal level. The best strategy is to avoid disaster-prone behavior in the first place.
- **Hazard Mitigation** → includes 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.

Emergency planning efforts at the local level should focus on and address all four areas of emergency management noted above. Outside of goals, policies, and recommendations contained within this Plan, the Town should utilize and maintain emergency management planning documents. In particular, the Town should ensure that they routinely have the two following plans up-to-date, adopted, and approved to address emergency management concerns:

- **Local Emergency Operations Plan (LEOP)** → Prior to 2014, LEOPs were known as a Basic Emergency Operations Plans (BEOPs). LEOPs provide towns with a listing of municipal emergency contacts, designated shelters, vulnerable sites/population, and a listing of the municipal official that may play a role in disaster response. Though not typically a public document (owing to the sensitive personal information it may contain), the individuals with roles to play in the event of an emergency should always have access to a hard copy(s). The Town Selectboard should be tasked with updating the LEOP annually, and ensure that all areas of municipal government that would be active during a hazardous event are aware of the LEOP and the information contained therein (e.g., the Selectboard, emergency responders, the Town road crew, and shelter coordinators).
- **Hazard Mitigation Plan (HMP)** → HMPs are documents with five-year lifespans that address actions that towns may take to address the effects of specific man-made and natural disasters. HMPs detail the forms of disaster that a town is most vulnerable to, and the steps that may be taken to reduce disaster costs, including damage to property and loss of life. The most recent draft of the Pittsfield HMP was completed in 2014, and is currently awaiting approval from FEMA.

Thanks in no small part to the quality of the LEOP that was in force when Irene hit, response efforts were well coordinated and well executed.

G. Goals, Policies and Recommendations

Goals

1. High quality medical care should be available to all Pittsfield residents.
2. Ensure the protection and safety of the citizens of Pittsfield against crime and violations of the law.
3. Maintain appropriate fire and ambulance service.

Policies

1. 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. Support programs that expand medical coverage or improve medical services for Pittsfield residents.
3. Support the development of assisted living or other facilities or services dedicated to supporting the elderly in Pittsfield.
4. Support efforts to provide residents with access to high quality physical and mental health care through local providers.
5. Support efforts to decrease response times for emergency services.

Recommendations

1. The Town should consider alternative providers of medical transport in an effort to reduce costs and improve response time and quality of care.
2. The Selectboard shall review and should update, where necessary, the town Local Emergency Operations Plan on a yearly basis.
3. The Town should consider earning Red Cross designation for its three shelters.

VII. Flood Resilience

A. Introduction

What does "resilience" mean and more importantly, what is meant by "flood resilience?" Very broadly, "resilience" means that an entity—a person, neighborhood, town, state, region, or society— when faced with a particular situation or event—has the ability to effectively return to its previous state or adapt to change(s) resulting from the situation or event without undue strain. As such, "resilience" is not necessarily an action that is taken, but an overall enhanced state of being in relation to an on-going or future specified situation or event.

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

The Town of Pittsfield has a long history of flood events with varying extents of damage, as is true of much of Vermont. The main waterbody in the Town is the Tweed River, a tributary of the White River. Like most towns in the region, Pittsfield is home to a number of other streams, creeks, brooks, and ponds of varying sizes. Flooding in the Town has typically occurred as a result of heavy downpours that lead to flash-flooding, excessive run-off from snowmelt, the occasional destructive ice jam, or other issues. These issues are often exacerbated by other mitigating circumstances, such is ice build-up, natural or man-made debris, or already saturated water tables or frozen soils.

Tropical Storm Irene

On Sunday August 28, 2011, unprecedented rainfall brought north by Tropical Storm Irene caused significant flooding throughout the State of Vermont. When the warm tropical and moisture laden air cooled as it climbed the heights of the Green Mountains, it dumped upwards of 11 inches of rain. All branches of the Tweed River and its feeding streams breached their banks, collapsing bank slopes in places, bringing tons of debris into the channels, and causing many bridges and culverts to become clogged with debris. Several houses were destroyed, and more still were rendered uninhabitable. Many other structures and properties were severely- to moderately-damaged. Numerous roads bridges and culverts were overrun, clogged, washed out, and/or destroyed. Route 100 south of the village and Route 107 east of town were both rendered impassable by major washouts. There was neither power nor telephone for several days. Pittsfield, along with twelve other Vermont communities, was truly isolated and left to fend for itself.

All at once, the community rallied. Over the ensuing days, weeks, months, and even years, those who were able and willing stepped up to do whatever they could to address whatever needed to be done. Those with equipment immediately set out to free the river of debris and open the roads (at least to foot, bicycle, and ATV traffic), while others checked on and took care of their neighbors. Several businesses shared food from their freezers and coolers, and town dinner was had. Teachers set up a school for the kids, computer techs figured out how to get gasoline out of the gas station

tanks, a videographer filmed fantastic footage of damage and relief efforts, and organizers organized. There were daily briefings with posted lists of individuals' needs alongside those able to provide goods, services, and support. News reports from the outside were disseminated, along with where, when, and how to get the help might have been needed. In the wake of the destruction, Pittsfield truly became a community of neighbors.

After a number of days, help from the State arrived via helicopters bringing in MREs (Meals Ready to Eat) and bottled water. A "free" store was set up in the fire house. A fleet of four-wheelers arrived from Chittenden via a pass through the national forest logging and snowmobiler trails, bringing medicines and other necessities to townspeople. Chittenden Fire and Rescue also gathered donations of food, toiletries, and other necessities as part of daily aid distribution at the Pittsfield Fire House. Electricity was restored. Soon thereafter, help came from the National Guards of several states, including South Carolina and Maine. The roads on either end of Pittsfield were restored enough for vehicle travel, although US Route 4, on either side of the pass and Route 107 to Bethel, was still impassable (travel to Bethel was possible, although not easy, using River Road). It would not be until the end of the year that Route 107 to Bethel was fully passable, and road works along Route 100 into Killington drug out for a long duration, including bridge replacement work.

Although day-by-day things began to resume a sense of normalcy, there was still plenty of work to be done. In addition to cleaning up the mess and removing all the debris, an especially large task was complying with the sometimes conflicting response and relief efforts and requirements of both FEMA and the State. Seemingly unending, repetitive, and exacting paperwork would follow. Many people in Town worked endless hours, weeks, and years to be sure that paperwork was properly filled out, and that all available funds had been applied for to rebuild the Town's infrastructure and rebuild lives.

All told, the Town's damage from Irene totaled $1,062,516.07, according to FEMA's Public Assistance Database, which captures an amount greater than or equal to 70% of the total damage sustained during the storm. Bridges and culverts have been repaired and/or are being replaced by bigger structures that are capable of passing greater amounts of water (and debris) than before the storm. In the end, seven homes in Pittsfield were destroyed. The seven homeowners opted to participate in the FEMA buyout program, wherein they received 75% of the pre-flood value of their homes. The Town of Pittsfield took title to those properties with the conditions of the program prohibiting any future development of those sites. The site of two contiguous properties that were destroyed is set to become a public riverside access and rest area. A community wide celebration was held on the one year anniversary of the flood with Governor Peter Shumlin, Senator Bernie Sanders, and Representative Peter Welch attending. The contingent from Chittenden was honored, as were many local citizens. The community picnic event has been repeated in the years since.

Many lessons have been learned before, during, and in the wake of Tropical Storm Irene. Hopefully this new knowledge will lessen the degree of damage when the rivers rise again, as they surely will in yet another 500-year Irene-type storm event or otherwise. We have seen that the powers of nature cannot be fought but must be accommodated. As much as we love our rivers, we now have first-hand knowledge of how powerful these events can be, and how much room they need to disperse in a major flood event. What Irene reinforced is that Pittsfield is a strong, resilient

community of talented people with a willingness to get done what needs to be done—for themselves, their neighbors, and their community.

B. Background

Types of Flooding

Generally speaking, 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 of time and over an extended area of the river's basin leads to flooding along flatter bottom lands along major rivers, inundating previously dry areas. This type of flooding occurs slowly, but flood waters can cover a large area. Inundation flooding has warning time and builds gradually, allowing 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 and hinder recovery.

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 and infiltrate it into the ground, 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.

All rivers move over time, but in more sandy areas and where channels have been straightened or dredged, 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 erodes banks and 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 the topography, the Pittsfield is vulnerable to flash flooding and fluvial erosion.

Causes of Flooding

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

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

Both severe storms and hurricanes/tropical storms occur during the summer and into the fall months, but ice jams and the combination of melting snow and rain leave the region vulnerable to the impacts of flooding in the winter and early spring. Ice jams typically occur during the spring when river ice begins to break up and move downstream, but may occur during a thaw period in the winter months. Sheets of ice become hung up on a narrow portion of the stream or river, such as under a bridge, culvert or another obstruction, creating a "dam," and additional ice and water begin to back up behind the hung-up ice sheets. This creates inundation flooding immediately adjacent to the site of the "dam," and additional inundation flooding upstream. Once the "dam" breaks free, flash flooding may occur downstream as well. Ice jams in the region typically cause minimal damage, but they can damage road infrastructure, and flood homes and businesses. The First and Third Branches of the White River (Chelsea and Randolph, respectively), the Waits River (Bradford), and Rowell Brook (Bradford) have all experienced ice jams or are vulnerable to them. Finally, the combination of melting snow and rain, can lead to flooding in Pittsfield.

Flooding is worsened by land uses that create hard surfaces that lead to faster runoff, and past stream modifications that have straightened or dredged channels, creating channel instability.

Implications of Climate Change and Flooding

According to a white paper produced by Vermont Agency of Natural Resources (VT ANR)'s Climate Change Team, climate change will likely bring about conditions that exacerbate flooding in Vermont.[9] The summer season is expected to lengthen overall, and the total precipitation is expected to increase in all seasons except during the fall.[10] The frequency of heavy precipitation events is likely to increase in all seasons, with the heaviest precipitation events occurring during the summer months.[11] Perhaps more importantly, precipitation will likely occur in shorter, more intense bursts and, consequently, will produce precipitation that runs off the land more than it filters into it.[12] These increases in heavy precipitation events will be in addition to already occurring impacts of climate change that have made extreme events more frequent. This provides additional opportunities for flash flooding and inundation flooding to occur, and places the state, the region and Pittsfield at greater risk for flood-related damage. In addition, the expected increase in precipitation during the winter months may lead to added snowmelt and flooding in the spring.

The impacts of climate change on a specific area or region (and globally) are informed by temperature and precipitation models that are used to predict future conditions. Precipitation models are important because they are used in designing and building road infrastructure, informing policy decisions, and in regulating the location where structures and facilities are built. Our understanding of the impact of global and regional climate change is constantly evolving, and

precipitation models are becoming more detailed and refined as well. It is imperative to use new precipitation models when planning, designing, and constructing new infrastructure, structures, and facilities to reflect the increase in frequency of heavy precipitation events. Road infrastructure, including culverts and bridges, designed and built using old precipitation models will be undersized in the future, or may even be undersized now. New structures and facilities designed and built using old precipitation models will be less likely to withstand and adapt to future precipitation events and trends (and the flooding that is likely to result).

The Economic Impact of Flooding in Pittsfield

The impact of any flood event can have long-standing and catastrophic impacts on the Town, stranding residents without access to safe shelter and necessities for prolonged periods of time or severely damaging—even destroying—infrastructure (e.g., roadways, transportation infrastructure, or communications services), homes, crops, other private property, or imperiling the lives of residents, pets, and livestock. The task of rebuilding in the wake of a flood event can be a lengthy and costly process, particularly when the necessary private or public financial reserves are not immediately available to address pressing problems. As a result of the wide-ranging impacts of flood events, it is imperative that the Town adequately considers and plans for flood events to mitigate impacts and coordinate response efforts.

The aforementioned impacts of a storm can take a sweeping toll on the Town's economy. As has been stated with respect to Tropical Storm Irene in 2011, the Town was effectively set adrift for days, without safe access in or out of the Town via main roadways. This impact rippled through the Town's economy, with goods, produce, and time lost to a lack of electricity and other services. Health and safety concerns were also adversely impacted by the storm. Town offices, municipal services, and local businesses alike can all benefit from planning for flood and other disaster-related events through creating continuance of operations plans. These plans will provide organizations and businesses with an outline of contingency plans that will improve as smooth a transition to business as usual as is possible in the wake of any form of disaster.

C. Flood Hazard Areas

There are two sets of official maps which can be used to govern development in the floodplain 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. Towns participating in the National Flood Insurance Program (NFIP) must use FIRMs. 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. Pittsfield has areas of mapped flood risk by FEMA, owing largely to the Tweed River and numerous streams and brooks that flow through the Town.

Recent studies have shown that the a significant portion of flood damages in Vermont occur outside of the FEMA mapped areas along smaller upland streams, as well as along road drainage

systems that fail to convey the amount of water they are receiving. Since FEMA maps are only concerned with inundation, and these other areas are at risk from flash flooding and erosion, these areas are often not recognized as being flood-prone. Property owners in such areas outside of SFHAs are also not required to have flood insurance. Flash flooding in these reaches can be extremely erosive, causing damage to road infrastructure and to topographic features, including stream beds and the sides of hills and mountains, and also creating landslide risk.

Vermont ANR's river corridor maps will show the area needed to address these erosion hazard areas, which may be inside of FEMA-mapped areas, or extend outside of this area. River corridor maps should be carefully reviewed to make sure they take into account local conditions. In these areas, the lateral movement of the river and the associated erosion is more of the threat than inundation by floodwaters. Elevation or flood-proofing alone may not be protective of structures in these areas as erosion can undermine structure. Vermont ANR issued statewide river corridor maps in the latter part of 2014.

Flood Hazard Regulations

In order for property owners to be eligible for federal flood insurance though the NFIP, municipalities must adopt and enforce a floodplain management ordinance, often called "flood hazard bylaws," "flood hazard area regulations," or "flood hazard overlay districts" in Vermont. These can be within local zoning regulations or crafted as a free-standing bylaw. A community's flood hazard regulations must apply to at least the Special Flood Hazard Areas (SFHA) identified by FEMA. The regulations regulate new structures in the floodplain and places restrictions on other types of activities within the floodplain. They also specify land, area, and structural requirements to be adhered to within the SFHA. Paradoxically, using only the minimum required regulations can increase flood risk, as they allow filling in flood zones.

The Town of Pittsfield currently has Flood Hazard Area Regulations that were adopted by the Selectboard in February 2014. While the existing bylaws do place limitations on floodplain development, the current bylaws adhere to maps that are not as wide-reaching in their scope of what areas are at risk in the Town. Pittsfield has addressed this deficiency, in part, through significantly limiting new development within the Special Flood Hazard Areas outside of the designated floodway, with an outright prohibition on new principal residential structures and new net fill. Further, the Town has placed limitations on development that may occur within the River Corridor Protection Area. Lax enforcement of these laws can place lives at risk of injury or death, place infrastructure and property at risk of damage or destruction, and can even create liability on the part of the community.

There are some circumstances that make the administration, and, to a degree, the enforcement, of flood hazard regulations problematic. For example, enforceable Flood Insurance Rate Maps (FIRMs) may be old or outdated and/or do not document any changes in a stream's course. For areas impacted by Tropical Storm Irene, this updated information is particularly important and useful (especially when the Irene-flooded areas are not documented on a town's FIRMs or the information between the FIRM and the real-world conditions is contradictory). FIRMs for many towns can date back to the early 1990's or even as far back as 1978. The outdated information on these FIRMs provides challenges for administering a town's flood hazard regulations as the

physical conditions on the ground may have changed since the FIRMs were issued with movement of waterways. In any case, the Town must still use the currently effective FIRMs until new FIRMs are issued by FEMA, unless a Letter of Map Amendment (LOMA) is granted for specific properties in the interim.

Unnumbered or approximate A Zones (labeled "Zone A") on a town's FIRM also present issues in the administration of a town's flood hazard regulations. In these areas, the base flood elevation, (the computed elevation to which floodwater is anticipated to rise during the base flood, sometimes called the "100-year flood") has not been determined, and neither has the floodway. As a result, the map does not provide the elevation to which a structure must be elevated or flood-proofed. For permit applications within an unnumbered A Zone, the floodplain administrator can use a few methodologies to determine the appropriate elevation to which the structure must be elevated or flood-proofed or require the applicant to hire an engineer to calculate the flood height. The floodway area may also be required to be mapped, as regulatory standards are much stricter in the floodway. This presents the potential for inconsistency in the administration of a town's flood hazard regulations over time, and among adjacent towns sharing a body of water. Regardless, a town is responsible for ensuring that new development within unnumbered A Zones is constructed using methods that will minimize flood damage.

While Pittsfield is responsible for administering its flood hazard regulations, one of the ultimate goals for the NFIP is to reduce flood damage and make communities safer along the length of a body of water. Therefore, it is important for Pittsfield and surrounding towns to properly administer and enforce their flood hazard regulations to not only protect their own community, but to help prevent damage to downstream communities.

Home/Property Buyouts

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

The home/property buyout process has both positive and negative impacts on a town and the community at large. The TRORC region was particularly hard hit by the flooding caused by Tropical Storm Irene, and had the greatest number of property buyout applicants in Vermont. As of mid-2015, there were 61 properties in the Two Rivers-Ottauquechee (TRORC) region involved in the buyout process. The towns in the TRORC region with buyout properties include; Bethel, Braintree, Bridgewater, Granville, Hartford, Pittsfield, Plymouth, Rochester, Royalton, Sharon, and Stockbridge. Most of these towns are located on the White River and its tributaries, as is true of Pittsfield. Of the 61 buy-out properties, 57 were classed as residential, and 7 were in Pittsfield alone. Because the properties eligible for a buyout were heavily damaged by flooding, the buyout process is an effective way to reduce a community's vulnerability to flooding and therefore

improve the community's overall resilience to flooding. As a result, a number of communities in the region have been made safer.

While the buyout process of an at-risk home makes a community less vulnerable to flooding, there is an inherent conflict between home buyouts and the tax and housing base of a town. For many towns in the region, a fiscal issue may arise with the loss of a few homes or properties from their tax base. As a result, some towns may need to raise taxes for the remaining landowners in order to maintain the town's level of service provided to the community. Higher taxes may make a specific town less attractive to some potential home buyers.

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

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

Lands That Help To Prevent Flooding

Wetlands

Wetlands are a vital component for maintaining the ecological integrity of land and water. In addition, they provide an array of functions and values that support environmental health and provide benefits to humans, including flood and storm water control.

Draining, filling, and development have already resulted in the loss of more than thirty-five percent (35%) of Vermont's original wetland acreage, primarily due to agricultural and large-scale development projects. At present, roughly four percent (4%) of Vermont's lands are classified as wetlands, totaling 244,000 acres. The Vermont Wetlands Office estimates that an additional 80,000 acres of wetlands exist that have not been identified, which brings the actual total to about five or six percent of the state's land. The current rate of wetland loss in Vermont has been estimated at eight (8) acres a year through incremental destruction by numerous smaller projects, many of which are less than one acre, with implications for short- and long-term values associated with wetlands. Although methods exist for creating areas that have many wetland characteristics, it is not possible to replicate the intricate complexities of a wetland formed over decades or hundreds or thousands of years.

The State of Vermont defines wetlands as "those areas of the state that are inundated by surface or ground water with a frequency sufficient to support significant vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction." Such areas include, but are not limited to: marshes, swamps, sloughs, potholes, fens, river, and lake overflows, mud flats, bogs, and ponds.

The Vermont Wetlands Rules (1990) (10 VSA Chapter 37) classify all wetlands into three categories. Class 1 wetlands are those identified as "exceptional or irreplaceable in their contribution to Vermont's natural heritage." There are no Class 1 wetlands that have been designated in Pittsfield or anywhere else in the Two Rivers-Ottauquechee region at large. Class 2 wetlands are those shown on the National Wetlands Inventory, as well as any wetlands contiguous to these mapped wetlands. Most wetlands considered as Class 2 have areas of at least three acres. Class 3 wetlands are those that have not been evaluated or are not considered by the Water Resources Panel of the Natural Resources Board (formerly Water Resources Board) to be significant.

The purpose of the Vermont Wetlands Rules is "to identify and protect significant wetlands and the values and functions which they serve in such a manner that the goal of no net loss of such wetlands and their functions is achieved." Although only wetlands designated as "significant" are protected under the Wetlands Rules, the Rules state, "[w]etlands not designated as significant under these rules should be assumed to have public value, and therefore may merit protection under other statutory or regulatory authority."

In Pittsfield, only 1.2% percent of the land area (160 acres) has been identified by the State of Vermont as "significant" wetlands, eligible for state protection under the Vermont Wetlands Rules. Largest tract of wetlands in the Town is actually contained within the GMNF, and smaller areas dot the Town's landscape along the Tweed River and its branches.

In order to be protected by Criterion 1(G) of Act 250, wetlands must be listed as significant by the state. Municipalities, the Regional Commission, or other interested parties may petition the state Water Resources Panel of the Natural Resources Board (formerly Water Resources Board) to: 1) have a wetland reclassified to a higher or lower classification, 2) determine which functions make the wetland significant, 3) determine whether the size or configuration of a buffer strip associated with a significant wetland should be modified, or 4) determine the final boundaries of any significant wetland. However, wetlands may be protected under several other sections of Act 250, including criteria dealing with water pollution (1), waste disposal (1(B)), floodways (1(D)), streams (1(E)), shorelines (1(F)), erosion control (4), natural areas and aesthetic considerations (8), wildlife habitat (8A), public investments and facilities (9A), and under local and Regional Plans.

The Planning Commission recognizes the critical value of wetlands in relation to the health of the water, wildlife, and plant resources in Pittsfield, the wider region, and to the ecosystem as a whole. The Planning Commission supports and encourages the identification and inventorying wetlands within Pittsfield and to adopt mechanisms for their increased protection. This information can increase the effectiveness of the state and federal regulatory process. The Planning Commission

recognizes that towns and communities have the ability to adopt mechanisms that provide stricter protections than are required by the state.

Riparian Buffers and Lands Adjacent to Streams

Naturally vegetated riparian zones (vegetated buffer strips next to surface waters) are essential for healthy and resilient river corridors. Vegetated riparian buffers provide a number of "ecosystem services" including: floodwater attenuation; providing habitat for aquatic and terrestrial organisms; providing river bank support and stabilization; helping prevent bank undercutting and bank collapse; reducing flood and ice damage to stream channel, and adjacent lands and structures; shading the river channel; intercepting, absorbing, and filtering out pollutants; and slowing surface water runoff. The maintenance and enhancement of streamside and lakeside vegetation is the easiest and most effective means of protecting the many benefits and values associated with surface waters.

Moving outside of the riparian buffer, additional lands adjacent to streams also provide benefits, especially during flooding events. Once water overtops the river or stream channel, these areas help to dissipate flood water. This also slows the velocity of the water by allowing the water to expand laterally over the land area, instead of moving down the river or stream channel. Because of their tendency to flood and the deposition of nutrients on the land, these areas tend to be very productive agricultural lands. They also serve to collect ice or debris during floods, helping river or stream channels to stay clear. Unfortunately, this places crops and livestock at risk during flooding events. Of course, much of Pittsfield is steep and mountainous and, therefore, does not have an abundance of flat lands surrounding rivers and streams. Nevertheless, the riparian areas and lands adjacent to streams and rivers in Pittsfield should be conserved and protected.

Upland Forests

Upland forests are distinguished by having a nearly continuous canopy cover of 60 percent or more.[13] In Vermont, the important upland forest tree species include: Red and Sugar Maple, Eastern Hemlock, Red Spruce, Yellow and Paper Birch, White Pine, White Ash, and Red and White Oak.[14] Aside from including these ecologically and economically valuable tree species, upland forests also comprise many small unnamed streams which make up the headwaters of a watershed. These headwater streams are the smallest, yet most abundant streams draining the state of Vermont and the region. Therefore, the activities occurring in the headwaters can impact an entire watershed.

Healthy and well-managed upland forests reduce flooding by intercepting rainfall, absorbing water in rich soils, taking water up into trees, and infiltrating rainwater, thereby reducing and slowing the flow of rainwater into small, headwater streams. These streams are notoriously "flashy" and are often responsible for fluvial erosion, particularly within mountainous areas. The Vermont Department of Forests, Parks and Recreation's Forest Watershed Program emphasizes the importance of healthy forests and sustainable forestry practices as a way to improve or maintain water quality.

Pittsfield has approximately 8,000 acres of forest. It is the intention of the Planning Commission to continue to support forest stewardship and to help preserve and protect forested land, which not only provides ecological, scenic, and economic benefits, but also helps mitigate flood damage. This, in large part, entails continued cooperative efforts with the U.S. Forest Service in the GMNF, which comprises a substantial share of the Town's forestlands.

Stormwater and Impervious Surfaces

Impervious surfaces are areas that prevent the infiltration of water into the soil. Man-made impervious surfaces include parking lots, rooftops, roads (even gravel roads), and severely compacted soils. Man-made impervious surfaces exacerbate flooding events by increasing the amount and velocity of stormwater runoff.

Impervious surfaces and increased stormwater runoff also negatively impact water quality in a watershed. This is not just an urban issue. In fact, studies have demonstrated that a water body begins to demonstrate visible degradation when its watershed reaches 10% imperviousness.[15]

The percentage of impervious surfaces can be reduced by limiting the number of rooftops and amount of pavement, by using permeable surfacing materials, and by implementing Low Impact Development (LID) principles.[16] The terms "LID" and "Green Infrastructure" are often used interchangeably. Overall, they are referencing essentially the same projects with similar goals in mind, but, technically, there is a slight difference between the two terms. Low Impact Development refers to the process of designing and implementing practices that can be implemented at the site-level to control stormwater, and attempts to replicate the pre-development conditions at that site. Green Infrastructure refers to a broader view at the community or watershed scale, and is focused on implementing LID practices as part of a coordinated effort to reduce impervious surfaces and stormwater runoff.

Green Infrastructure and LID principles seek to mimic conditions present before the development of an area by managing stormwater runoff the way a healthy and intact environment would— by slowing it, spreading it, and/or sinking the runoff into the ground. Projects implemented with LID and Green Infrastructure principles include: porous pavement, bio-swales, tree wells, "green" landscaping, vegetated buffers, rain gardens, and rain barrels. Such efforts can significantly reduce peak flood flows.

While widespread impervious surfaces are detrimental to water quality, impervious surfaces in some areas, such as in village centers and downtowns, are the results of dense development, and are important in the fabric of Vermont landscapes. It is critical to maintain the dense development of village centers and downtowns for their outright benefits to their community. However, it is also important to understand the stormwater runoff issues that exist and understand the ways to mitigate their effects through various approaches.

The Site-Specific Nature of Flooding

The risk of flooding in Vermont varies site-by-site, to the point where parcels located adjacent to one another may be impacted differently in a flooding event. The site-specific nature of flood risk

can be attributed to a number of factors, such as: topography (the presence of steep slopes or valleys); location of any structures on the site; characteristics of the stream or river, including its course and ability to access its floodplain; soil composition; the presence of riparian buffers and the condition of the buffer, including the type of vegetation; the presence of wetlands nearby and their quality; the path and variability of weather systems; and the characteristics of adjacent and nearby sites; among others. All of these factors can vary widely.

Generally speaking, floodways are extremely dangerous places, and the Special Flood Hazard Area and river corridors are high-risk. However, each site presents specific issues and a unique set of circumstances. For example, on a site only in the Special Flood Hazard Area, the risk may be solely from inundation and so the specific elevation is a major factor in flood damage. On a site in the river corridor, the risk may be due to lateral erosion and so elevation is less important than whether you are sitting on bedrock. On other sites, the risk may be from both inundation flooding and erosion. The site-specific nature of flooding complicates assessing and planning for flood risks. It is important to understand the specific risks that are present at each site before attempting to mitigate flood damage on that site.

The late Gilbert White, considered the father of floodplain management in the United States, wrote, "Floods are 'acts of God', but flood losses are largely acts of man." By this he meant that flooding is a hazard not simply because it rains hard, but that we have put things in the way that will suffer from that. Historically, Vermont town and village centers were established around water power, and created the densely developed village and town centers we value. Today, the desire to maintain and continue this settlement pattern still holds true—even if the downtown or village center is vulnerable to flood risks. Keeping these areas of compact settlement as safe from flooding as possible, given their location, may require elevation and flood-proofing efforts, but will largely depend upon natural flood storage and surface runoff retention in upstream areas.

D. Promoting Flood Resilience in Pittsfield

Flood Hazard Regulation

Potential strategies to protect the flood hazard area **could** cover a wide range of options, including:

- **Prohibition on New Development** – Most planners would suggest that a complete prohibition on new development within the floodplain and river corridors is the best way to avoid future damages and potential loss of life from extreme events. In Pittsfield, and in light of the impacts from recent storms, this suggestion may prove prudent.

- **Prohibition of Specific Types of Development –** An alternative to an outright prohibition on development is to identify specific types of development that could be allowed, such as at-development like parking. Accessory uses might also be allowed. Infill development that does not create any additional need to constrict the river could also be allowed. In some communities, new residential and commercial development has been prohibited from developing in the floodplain. In others, only residential has been prohibited. Decisions on which types of uses to prohibit are generally made with substantial citizen input with

considerations for what will most substantially reduce risks to life and property. This is currently the Town's preferred method of regulation, as is enshrined in the Flood Hazard Area Regulations.

- **Increasing Standards** – Communities can choose to increase the requirements for new developments in the floodplain while still allowing all or most forms of development. Increased standards could include a requirement that structures be elevated higher than the minimum standards required by the NFIP. Such standards could also include more specific requirements for tying down structures, elevating utilities so that flood are less damaging, prohibiting critical facilities in the floodplain, and making structures more capable of allowing floodwaters to pass through them (such as using piers instead of fill to elevate).

- **Elevation to protect investments and lower premiums –** Elevating one foot above the base flood elevation (BFE) is a common standard in the region, but going even further and requiring two feet of "freeboard" can result in major reductions to flood insurance premiums, as well as increased resilience in the more extreme storm events of the future. With the flood insurance reform passed in 2012 and 2014, flood insurance premiums are set to change dramatically to actual risk-based rates rather than the current subsidized rates. Elevating existing structures, improved structures and new structures will lower premiums and more importantly, provide flood protection. Removing utilities from basements and filling to the basement BFE can also lower premiums.

- **Create River Corridor Protection Area** - Some communities have created an area that extends beyond the mapped Special Flood Hazard Area. Often the River Corridor Protection Area uses fluvial erosion hazard data as part of its basis, but can also include simple setbacks from rivers in all parts of the community as a way to deter development in areas that may erode in the event of severe flooding.

Future revisions to Pittsfield's flood hazard regulations will require input from the community regarding the level of regulation they believe is necessary to protect citizens and their buildings from severe flood hazard events. Provided that all parts of the flood hazard regulations meet the minimum requirements of the NFIP, communities have a broad range of flexibility in which to regulate the flood hazard area. For example, a community could prohibit commercial development in the floodplain everywhere except a village, because, in some communities, such a restriction would be damaging to the village center.

Non-regulatory approaches

Other approaches that do not require the establishment of new/alteration of existing regulations could be utilized to improve the Town's flood resiliency. For example, provided the social, political, and financial backing were in place, Pittsfield could pursue riparian easements as a way to protect floodplain from development and preserve flood storage.

H. Goals, Policies and Recommendations

Goals

1. Apply sound planning practices to address flood risks and protect citizens, property, the Pittsfield economy, and the quality of the Town's rivers as natural and recreational resources.
2. Pittsfield is able to recover from flooding quickly and in a manner that improves flood resilience.
3. The creation of impervious surfaces and development in wetlands or upland forests in Pittsfield is lessened, and, where it does occur, is done in a manner that does not worsen flooding.

Policies

**Mapped areas, unless corrected by FEMA.*

1. All new fill and construction of buildings in Pittsfield's mapped flood zones* outside of river corridors increases flood risk and is discouraged, and, at a minimum, must comply with the Association of State Floodplain Manager's No Adverse Impact policy.
2. All new buildings, other than accessory structures, in mapped flood areas* must have the lowest floor at least one foot above base flood elevation.
3. Natural areas, non-structural outdoor recreational and agricultural uses are the preferred land uses within Pittsfield's river corridor areas due to the dangerous erosive nature of these areas. Commercial, industrial, and residential uses within river corridors are strongly discouraged outside of Pittsfield's village center.
4. New buildings within Pittsfield's mapped floodways* shall be prohibited.
5. In order to lessen the conflict between roads and streams, Pittsfield should consider moving or abandoning at-risk roads when there are more cost effective solutions or other routes available.
6. Pittsfield should only rebuild/install culverts and bridges that are designed at least to VTrans Hydraulics Manual and ANR Stream Alteration Standards.
7. Pittsfield's emergency services and municipal buildings shall not be built in the Special Flood Hazard Areas unless flood-proofed or elevated to at least 2 feet above the base flood elevation and designed to withstand erosion risk.
8. Vegetated buffer strips should be maintained in riparian zones surrounding streams and rivers. Rock rip-rap and retaining walls should only be used to the extent necessary and when bioengineering techniques may not be adequate to prevent significant loss of land or property.
9. Pittsfield's upland forests and watersheds should be maintained predominately in forest use to ensure high quality valley streams and to ensure that flood flows are absorbed.
10. Outside of areas of existing compact development, new development must preserve vegetated riparian buffer zones that are consistent with state riparian buffer guidelines.
11. All wetlands which provide flood storage functions shall remain undeveloped or have compensatory storage constructed so as to achieve no net loss of such wetland function.

In the long term, restoration and enhancement of additional wetlands should be pursued in order to improve Pittsfield's flood resilience.

12. Structural development or intensive land uses shall not occur in Class I and Class II wetlands unless there is an overriding public interest.
13. Pittsfield should adopt road and bridge standards to the 50 or 100 year storm level for identified critical transportation routes.
14. Emergency planning for flood response and recovery is encouraged.

Recommendations

1. Pittsfield should work with the Regional Planning Commission to strengthen their Flood Hazard Regulation Bylaws in order to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments from inundation and erosion.
2. Pittsfield should work with VTrans and the Regional Planning Commission on advocating for and improving the flood capabilities of state or Town-owned transportation infrastructure.
3. Pittsfield should continue working to develop mitigation plans, and emergency preparedness and recovery procedures from flooding.
4. Existing homes and businesses at serious risk of flood damage in Pittsfield should be identified and prioritized by the Pittsfield Zoning Board in concert with the ANR River Management Section and the Regional Planning Commission for mitigation actions such as elevation/relocation or purchase and demolition.
5. Areas not designated in either FEMA's maps or in VT ANR's maps, but which are flooded during a weather event, should be recorded by the Pittsfield Zoning Board and may be added to local flood regulations.
6. Watershed-level planning should be performed by the Town with assistance from the Regional Commission to evaluate natural and constructed flood storage options upstream of existing areas of concentrated development that are at risk of flooding.
7. Pittsfield shall work with ANR, the Regional Planning Commission, and landowners to lessen flood risk by restoring natural channel functions through berm or dam removal or intentional lowering of streambanks.
8. Pittsfield shall work with the Regional Planning Commission to understand the impact stormwater runoff has on the Town, and then work to address impacts from impervious surfaces through increased retention and infiltration.

VIII. Transportation

A. Introduction

The Vermont Agency of Transportation and the Pittsfield Board of Selectmen jointly determine road classification. There are four road classifications used by the State of Vermont. The classification determines the rate of State financial aid in the repair and maintenance of Town roads (there is no State aid for Class Four roads). The classes are:

- Class 1: town highways that form the extension of a state highway route and that carry a state highway route number.
- Class 2: important town highways, often paved, with the primary purpose of linking towns and high traffic areas such as village settlements and state highways.
- Class 3: all traveled town highways other than Class 1 or Class 2 highways that are negotiable under normal conditions, all seasons of the year by a standard manufactured pleasure car.
- Class 4: all other town highways on which public use is limited.

B. Town Roads and Road Maintenance

Pittsfield has a total of 14.77 miles of Town roads, consisting exclusively of Class 3 roads. This does not include the 4.87 miles of Vermont Route 100 that runs through Pittsfield and is maintained by the State, nor does it include Class 4 roads or those roads deemed as "not up to standard" (the Town's Class 3 roadways that are considered to be functionally equivalent to Class 4 town highways).

Table 9: Pittsfield Roadway Level Mileage, 2014

Roadway Classification Level	Mileage of Roadway Level
1	0
2	0
3	14.77
4	5.82
Not up to Standard*	4.48

**The sections of the town highways listed as "not up to standard" are legally Class 3 roads, but have been deemed functionally Class 4 Town Highways, including town highway numbers: 2 (1.66 miles), 3 (1.81 miles), 6 (0.4 miles), 13 (0.56 miles), and 15 (0.05 miles).*

Source: VT Dept. of Transportation, 2014 General Highway Map

Most of Pittsfield's residential properties are located on Class 3 roads. There are about 20 residential properties on Class 4 roads in Pittsfield, half of which are either full-time residences or second homes. In general, it is the policy of the Town to limit the amount of maintenance that occurs on Class 4 roads. For example, the Town is not responsible for plowing Class 4 roads. That said, Class 4 roads often play an important role in recreational activities, such as snowmobiling, hiking, cross-country skiing, riding, and other outdoor activities. As such, they are a valuable asset to residents.

The quality of Town roads and their level of maintenance affect not only the Town tax rate, but also the type and rate of Town development. Road improvements may make Pittsfield a more attractive place of residence and increase the commuter population. This, in turn, may increase demand for Town services and thus additionally raise the tax rate. Funding sources come from local tax procurement, state and federal gas tax receipts, and other state and federal allocations. The bulk of funding comes from federal sources, and is applicable for Classes 1-3, owing to Class 4 roadway maintenance not being required.

Overall, the condition of the roads in Pittsfield is good. In 2012, the Town of Pittsfield worked with staff of the Two Rivers-Ottauquechee Regional Commission to complete an inventory of culverts on Class 3 roads. This was the first inventory following Tropical Storm Irene in 2011, which placed an enormous strain on the Town's roads and culverts. As of the 2012 culvert inventory, there were approximately 230 culverts in Pittsfield. This inventory will be continually updated, and allows the road crew to track the condition and changes to any culverts. In an independent evaluation of the Town's culvert and drainage system in 2008, it was acknowledged that "Pittsfield has one of the best systems of Town culverts and drainage facilities in the region." This has been borne out again with the more recent 2012 culvert inventory, which showed that only 42 (less than 20%) of the existing culverts are actually classed as being in "poor" condition and, therefore, most in need of repair. Pittsfield will be completing a full culvert inventory with TRORC assistance in the summer of 2015 that can be leveraged to determine which areas are most at risk for flooding and other issues, and help direct future funding.

The age of Pittsfield's road maintenance equipment is of growing concern. As of 2009, the town's bucket loader is over 34 years old. One of the Town's dump trucks is over 18 years old, although the Town has acquired a significantly newer dump truck in recent years to replace an older model. While the community has been budgeting roughly $10,000 to be deposited in a reserve fund (for equipment replacement) on a yearly basis, the creation of a formal Capital Budget and Program that focuses on reserving funding to replace aging equipment would allow the town to continually upgrade equipment without requiring a large one-time investment from the citizens of Pittsfield.

C. Ancient Roads

The legal status of so-called "ancient roads" has become increasingly contentious in many Vermont towns. Points of view diverge sharply on the access rights to these hard-to-locate roads. To some, these roads should remain a public asset even though they have not been maintained or used as a road over many decades, even centuries. To others, the town should no longer retain public rights to lands that are not in active use and have been presumed by landowners to be privately held.

D. Public Transportation

Pittsfield, like most Vermont Towns, has limited public transportation opportunities. Stagecoach, Inc. offers limited public transportation in the form of special requests for individuals who need transportation for medical reasons, etc. Additionally, Stagecoach also offers subsidized ride fares for senior citizens 60 and the disabled through its "Ticket to Ride" Program, which is particularly beneficial for those who are wholly dependent on others for their transportation needs. This

program affords the elderly and disabled residents an opportunity to socialize in as much as it affords a chance to take care of routine shopping, errands, and medical appointments.

Given that much of Vermont is aging, the need for an affordable source of public transportation that can bring the elderly to major medical facilities like Rutland Regional Medical Center and Dartmouth Hitchcock and larger commercial centers for day-to-day shopping needs is important.

E. Pedestrian and Bicycle Transportation

Pittsfield is a hiker, stroller, and biker paradise, owing to close proximity to parkland and trails (such as the Vermont Association of Snow Travelers [VAST] trails and the Green Mountain National Forest). However, in Town, it is often difficult to residents to safely access shops and amenities, owing in part to a lack of a walkable village center and high traffic volumes along Route 100. During previously held public forums, residents have indicated that they would like to see the village be more walkable for improved access as well as for overall health and well-being. This would require the addition of sidewalks, which would most likely be difficult for the town to fund out of their own budget. However, the State of Vermont's Transportation Enhancement Program, when active, may offer a percentage of the funding to build sidewalks.

F. Rail and Air Travel

Pittsfield does not have immediate access to either a passenger rail station or an airport. The nearest Amtrak passenger railway stations are located in the towns of Randolph and Rutland, with service to cities throughout the Northeast and, in due course, possible linkages to Montreal. The nearest airport, meanwhile, is the Rutland-Southern Vermont Regional Airport. Additional airports exist throughout the region that many utilize, including: Lebanon Municipal Airport (New Hampshire), Burlington International Airport, Manchester-Boston Regional Airport (in New Hampshire), and Boston Logan International Airport (in Massachusetts). The Boston Logan is the largest regional airport hub, and can be reached by car, train, or coach bus service (the Dartmouth Coach).

G. 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 that is 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 in order 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.

H. Vermont Scenic Byway

Route 100 through the Town of Pittsfield has been included in the Scenic Route 100 Byway that runs the length of Route 100 as well as a portion of 100A in Vermont. The Vermont Scenic Byway designation program provides travelers with historic, cultural, scenic, and recreational information and waypoint centers in the towns and villages that dot the Byway route. 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, and 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 a more extensive range of Route 100 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 that aim to enhance village areas, and promote tourism and economic development while also preserving the rural character found along the Byway.

I. Parking

There are municipal lots in close proximity to the Town Office, and an officially designated town park-and-ride. The park-and-ride is located off of Route 100 on the village green. It is paved, well-lit, accommodates up to 18 vehicles, and has handicapped-accessible parking available. Additional

parking in front of local store fronts and the town's gas station do provide some on-site parking for patrons, but these lots are often full to overflowing. Managing these sites to ease congestion is a priority for aesthetic, safety and functional purposes.

J. Goals, Policies and Recommendations

Goals

1. Maintain a transportation system that is safe, energy efficient, meets the needs of residents, and complements the other goals and policies of this Plan.
2. Future development must not unnecessarily or unreasonably impact public investment in Town and regional transportation systems or facilities (including highways, bikeways, trails, and rail) or adversely impact public safety.
3. Support local, regional and statewide efforts to provide public and private transportation systems that are cost-effective and meet the needs of all population segments, integrating the needs of all modes of travel (auto, pedestrian, bicycle, and mass transit).
4. Encourage carpooling and creative alternatives for sharing transportation resources to minimize transportation energy consumption.
5. Provide pedestrians with safe areas to travel within the Village of Pittsfield.
6. Provide regular maintenance and upgrades to road equipment and facilities, provided that the costs do not put an undue burden on the people of Pittsfield.
7. Recognize the importance of balancing the need to have safe roadways with the desire to maintain appropriate widths and the health of existing vegetation in its role as a structural component of the roads.

Policies

1. Prior to a final decision to proceed with a major capital transportation project, policy makers should first analyze the project against reasonable alternatives and include public input. In examining the alternatives, investigation should focus on the environmental, public safety, energy, social and investment costs and the extent to which such costs meet the goals and policies of this Plan.
2. Any new access, new construction, change of use, and any development of a land parcel that would create impacts on Pittsfield's road system shall be reviewed by the Town. Where such development requires improvements to Town highways, such costs shall be borne by the developer, in consultation with the Selectboard, and the Selectboard shall have sole power to change the classification of the road.
3. Minimize curb cuts to insure the proper function and performance of a town highway.
4. It is the policy of the Town that the design of access roads and related facilities provide for proper alignment of new or relocated driveways along town roadways.
5. Any new residential or commercial development or changes of existing use must provide adequate off-road parking.
6. The Town shall seek public input in any decision to substantially change the maintenance level or surface treatment of any town road.

7. The Town, as written in V.S.A. Title 19 Section 310, does not maintain Class 4 Highways, excepting bridges and culverts. The policy of the Selectboard is that, before the Town would consider adopting a new road or upgrading an existing highway, the abutting property owners shall be responsible for the cost of improving and/or building the road to Town specifications. Final decision regarding the nature of the improvement rests with the Selectboard, with input from the Road Commissioner.
8. Given the interest in and benefits from biking, hiking, snowmobiling, cross-country skiing, and similar outdoor recreational activities, the Town should, as an alternative to complete discontinuance of a highway, give full consideration to preserving Class 4 roads for recreational use by downgrading their status to a legal trail and thus retain the public's interest in them.
9. An integral scenic element of the rural countryside is the network of back roads that comprise the Town's highway system. These byways are both visually and economically important to the Town. If improvements are needed to accommodate increased traffic, the Town shall consider the relationship of the road to the surrounding features of the landscape.
10. Strip development is a prohibited land use pattern. Such development occurs in a linear path along a right-of-way which often restricts visual and physical access to interior lands.
11. The health of trees along town roads shall be periodically reviewed. Trees that are unhealthy or otherwise pose a substantial risk to travelers shall be removed.

Recommendations

1. 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.
2. Continue to routinely update inventories to roads, bridges, and culverts to ensure appropriate safety and usability of all roadways and supporting infrastructure, along with short- and long-range planning for necessary replacements and enhancements.
3. Encourage participation in the Regional Transportation Advisory Commission as well as the TRORC Road Foreman's meeting program.

IX. Energy

A. Background

Concern about the sustainability of 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 fossil fuels continue to rise, everyday activities such as home heating and travel by car become increasingly burdensome for the average Pittsfield resident.

While the Planning Commission recognizes that energy supply and demand are directed largely by economic forces at the state, federal, and international levels, the manner in which Pittsfield 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 in close proximity to 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 Pittsfield should prepare for a much less oil-dependent future.

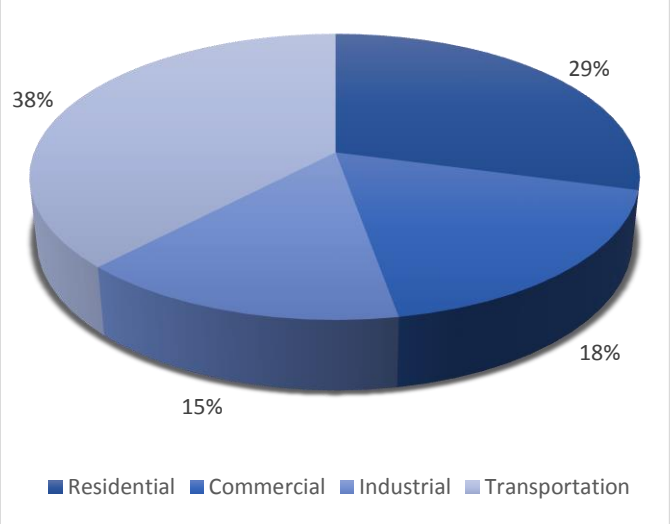
Given the predictions of Peak Oil, Pittsfield, like the rest of the world, should prepare for a very different future. Principles of energy, energy conservation, stewardship and energy independence, as well as global climate change, underscore the need for good planning and active discussion about energy alternatives.

B. Energy Demands

Vermont is one of two states in the country to not have coal-generated electricity. According to the U.S. Energy Information Administration, nuclear power accounted for 70% of the electricity generated in the state, a higher share than any other state in the country in 2013. However, since that time, the Vermont Yankee plant in Vernon, VT began the process of decommissioning, going offline on December 20, 2014. As a consequence, there will be a pronounced shift in energy consumption sources and corresponding data in coming years. Twenty-percent of the state's net electricity generation in 2013 came from hydroelectric power, which will see an increase along with other renewable energy generators. Much of the hydropower used in Vermont comes from Hydro-Quebec, a large-scale hydro-power facility in Canada. About 7-10% of state power comes from renewable generating plants, with the remaining energy being provided by traditional coal fired plants.

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

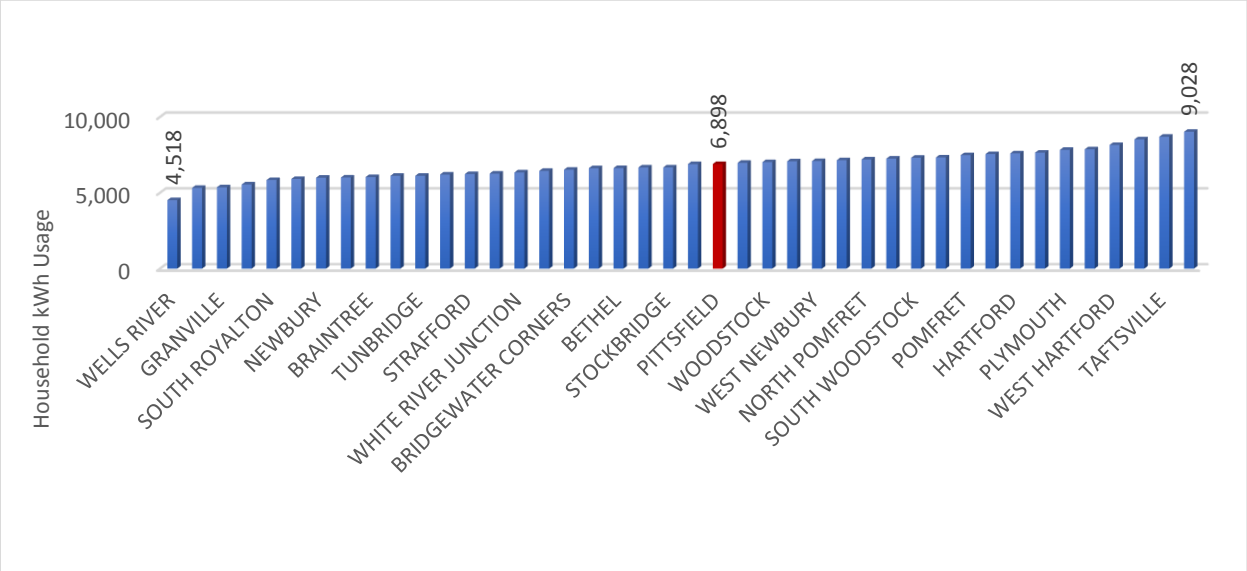
Figure 8: Vermont Energy Consumption by End-Use Sector, 2012



Source: Energy Information Administration, State Energy Data System

According to data collected by Efficiency Vermont in 2010, the town of Pittsfield ranked 23rd out of 43 towns and villages in the Two Rivers-Ottauquechee Region in terms of average annual energy use levels. In 2011, this data (limited only to residential energy use) determined that Pittsfield households averaged 6,898 kWh of energy used, which is 86 kWh more than the average usage of all the towns in the TRORC region. When compared to other nearby White River watershed communities along Route 100, such as Hancock and Granville, this level of residential energy use seems high.

Figure 9: Average Residential kWh Usage per Household, 2006-2011

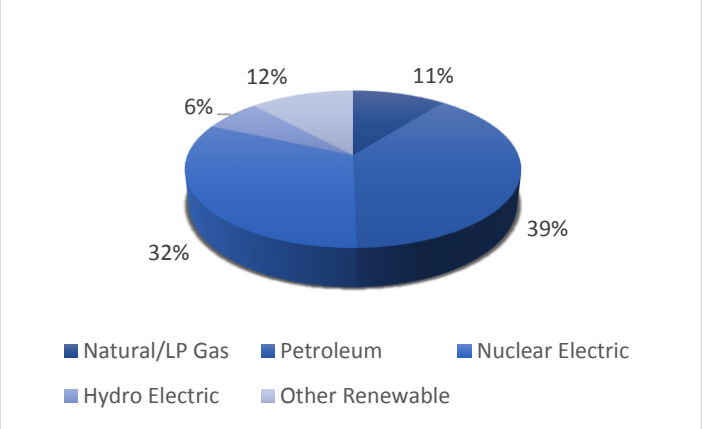


Source: Renewable Energy Atlas of Vermont, Efficiency Vermont

C. Current Energy Sources

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 38% of the state's total energy usage goes toward transportation. According to 2012 American Community Survey data, the major heating fuels consumed in Pittsfield are oil (46%), LPG gas (32%), wood (19%), other energy sources (3%). Per capita energy consumption for residential and transportation purposes is about the same as in the northeast. About 76% of all energy used is for these purposes. Almost 80% of residential energy is dedicated to space heating and domestic hot water. State energy officials estimate that simple conservation measures incorporated in new housing could result in a 20% to 30% reduction of energy usage statewide.

Figure 10: Vermont Primary Energy Consumption Estimates, 2011

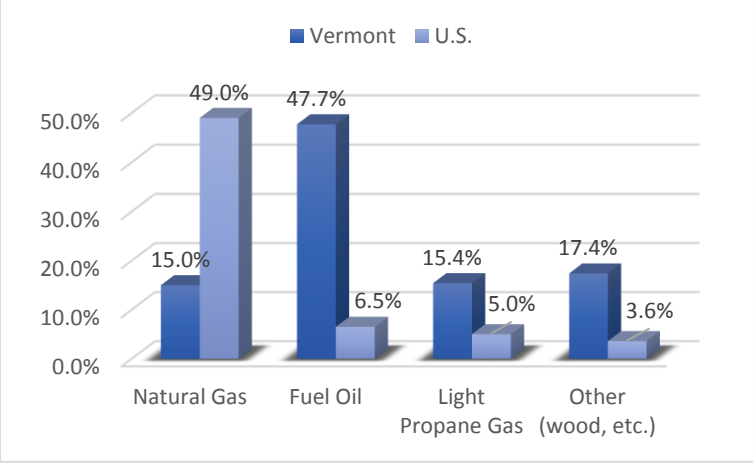


Source: Energy Information Administration, 2011

Fossil Fuels

Pittsfield, like most other towns in Vermont, depends primarily on fossil fuels for heating and transportation. As shown in the chart above, fossil fuels account for more than 50% of all energy consumed in Vermont, much of which is used in transportation, but a substantial portion of non-transportation related fossil fuel use is used in heating.

Figure 11: Percentage of Fuel Use in VT & U.S. by Type, 2011



Source: Vermont Energy Profile, U.S. Energy Info. Administration

Of greater concern is Vermont's high usage of oil as a fuel for heating. Nearly three-fifths of all Vermont households (154,026 of Vermont's 256,711 total households) use fuel oil, which means a substantial portion of Vermonters are subject to the price and availability instabilities of a reliance on oil. Of the total $885 million spent on residential energy in the state of Vermont, just over 50% ($445.8 million) was spent on fuel oil, kerosene, or light propane gas. Vermont's economic system is

so closely tied to the availability of fossil fuels that even modest price increases can lead to inflation, a slowdown in economic growth, and monetary instability. This can have unanticipated adverse impacts at the municipal and residential level in all communities, including Pittsfield. 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, commute, and put food on the table (the price and availability of food is usually influenced by fuel prices).

Nuclear Energy

Vermont Yankee Nuclear Power Station generated electricity from 1971 until it commenced decommissioning in December 2014. The power from Vermont Yankee accounted for about three-fourths of the electricity generated within Vermont in 2011, a higher share than any other State. The loss of this power producer, however beneficial from an environmental standpoint, puts the state in the position to find other sources of local production or buy additional energy on the open market, which can be expensive.

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 that are highly toxic and require extraordinary precautions for safe storage. Existing technology does not assure safe disposal. The industry has not completely resolved economic and 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, solar farms, landfill and on-farm methane projects.

D. Renewable Energy Resources

The 2012 Vermont Comprehensive Energy Plan has set the goal for Vermont to utilize 90% renewables by 2050. This is a lofty goal, but one that will benefit all Vermonters if achieved. 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 follow:

Solar Energy

Solar energy has the potential to provide clean, reliable, and safe energy, even in Vermont's climate. Most areas in Vermont have the potential for some solar energy production, at least at the residential scale. According to the Vermont Energy Atlas, in Pittsfield, if all potential opportunities to develop roof top solar energy production were taken advantage of, the Town would have the potential to generate roughly 567,134 kWh of power spread over a total of 404 residential, commercial, industrial, and public sites. There are a number of solar systems to choose from, including: passive heating and lighting, water heating, and electricity generation.

There are no commercial-scale solar electricity generation facilities in Pittsfield. Because of the nature of solar arrays, they are in some ways more desirable than wind towers. This is primarily due to the fact that they do not need to be located on high ground and are therefore less visually prominent. In addition, these facilities can be located in areas that are less rural in nature, requiring fewer access roads and reducing adverse impacts on wild lands.

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 so as 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 the Natural Resources section 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.

Table 10: Potential Wind Development Areas (Acres) in Pittsfield

	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)	2736	1280	434	266	88	207	69
Small Commercial (50-meter)	0	88	86	26	0	0	0
Large Commercial (70-meter)	0	0	7	56	9	0	0

Source: Renewable Energy Atlas of Vermont

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

There are multiple levels of potential wind energy generation, ranging from Class 1 (10-11 mph) to Class 7 (19-25 mph). Pittsfield's topography and distance from the more windy areas of the state makes it a poor location for wind energy generation at the small commercial or large commercial scales. Owing to these constraints, commercial windfarms are not recommended for the Town. Further, while the Town may be suitable for residential wind generation, according to the Renewable Energy Atlas of Vermont, finding suitable siting in the Town may be problematic.

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 Pittsfield. Community-scale biomass has the potential to offer cost-effective heating in small, clustered areas. Some towns have implemented combined heat and power systems that run on biomass to heat multiple municipal buildings, which may be of interest to Pittsfield.

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; therefore, truck traffic should be a consideration in selecting a site. Additionally, before a biomass energy generation facility is located in Pittsfield, 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 Pittsfield as well; however, balance should be sought between growing for energy demands and for human and animal consumption.

Agriculture

The agricultural sector has the potential to become a net generator of energy by growing crops that can be used for biofuel, by contributing cow manure to the process of methane digestion (also known as "Cow Power"). 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. Large-scale cow farms, though, 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 the community.

Hydropower

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

There are no sites in Pittsfield that are considered "in-service" hydropower facilities, meaning that they are not actively producing power but have the basic infrastructure to do so. Retrofitting such sites presents the most effective means of adding potential hydropower while keeping environmental impacts low.

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 Pittsfield shall not result in an undue adverse impact to riverine ecosystems and water quality.

E. Permitting Considerations

Energy generation in Vermont is subject to a number of different permitting requirements, most of which are limited to state level permitting. 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 particular project, similar to Act 250. In making its determination, the Board must give due consideration to the recommendations of municipal and regional planning commissions and their respective plans. Accordingly, it is appropriate that this Plan address these land uses 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 reinforce Pittsfield's traditional patterns of growth, of a compact village center surrounded by a rural countryside, including farm and forest land.

2. **Prohibited Locations**: Because of their distinctive natural, historic or scenic value, energy facility development shall be excluded from the following areas:
   - Floodways shown on FEMA Flood Insurance Rate Maps (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; and
   - 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.

- Necessary wildlife habitat identified by the state or through analysis, including core habitat areas, migration and travel corridors.

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

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

6. **Site Selection**: Site selection should not be limited to generation facilities alone; other elements of the facility need to be considered as well. These include access roads, site clearing, onsite power lines, substations, lighting, and off-site power lines. Development of these elements shall be done in such a way as to minimize any negative impacts. 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.

F. Residential Energy Efficiency

There are a number of ways that the Town of Pittsfield 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. Examples include:

- Turning off lights when you leave a room.
- Using a programmable thermostat.
- Use a laundry line.
- Use a cold-water laundry wash.
- Don't make multiple car trips for errands.

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:

- Having an energy audit done to identify the greatest ways to save energy;
- Implementing the air-sealing and insulations recommendations of the energy audit;
- Not heating unused areas of your home;
- 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; and
- 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).

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

G. Municipal Role in Energy Efficiency

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.

Pittsfield Energy Committee

Pittsfield does not have an active Energy Committee (EC), but all Vermont towns are statutorily enabled to create one. An EC is an independent group created for the purpose of establishing and implementing the town's energy goals, working either independently or upon formal appointment by the Town's Selectboard. A Pittsfield EC's work may include conducting energy audits on municipal buildings, implementing the audits' recommendations, tracking energy use for municipal buildings, installing LED streetlights, and working with the Planning Commission on a Pittsfield Energy Plan. One of the most important fringe benefits of an EC is that it can help the Town save money while also saving the Town and its residents' energy.

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. Pittsfield is not currently part of the PACE program.

Capital Budget Planning

Given the potential expense of energy efficiency improvements, it is essential to wisely budget town funding to cover these costs. State statute enables communities to create a Capital Budget and Program for the purposes of planning and investing in long-range capital planning. Although most communities have some form of capital account where they save money, many do not have a true Capital Budget and Program. As previously stated in this Plan, 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.

The Town of Pittsfield has not adopted a formal Capital Budget and Program to help guide investments in community infrastructure and equipment. Should they do so in the future, the Planning Commission may make recommendations to the Selectboard with regard to what capital investments should be considered annually.

Policy Making for Change

In addition to reducing the energy use related to facilities, Pittsfield 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. 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 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 are designed to control the type and density of development. It is important to acknowledge the connection between land use, transportation, and energy, and creating 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, such as increased use of solar and wind power.

Zoning bylaws may 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 a 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 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 regulations can require that landscaping be utilized to reduce thermal loss.

I. Energy and Transportation Policy

It is important that communities recognize the clear connection between land use patterns, transportation, and energy use. Most communities encourage the development of residences in rural areas, 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.

American Community Survey data from 2013 shows that 94.2% of Pittsfield residents drive to work, 90.9% of which drive alone. Transportation represents the largest single use of energy in Vermont. Because public transportation in Pittsfield is nearly non-existent, there are few alternatives, if any, to the automobile if a resident needs to work outside of town. 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 take into account the transportation implications of land use decisions in this community.

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 Pittsfield to be located adjacent to existing roads. In particular, dense residential developments should be located within or adjacent to existing village centers or within designated growth areas. Commercial development that requires trucking and freight handling should only be located on roads which can effectively handle the size of vehicle needed.

J. Goals, Policies and Recommendations

Goals

1. 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 Pittsfield to meet the energy needs of the community and region.
2. Reduce energy costs, the community's reliance on fossil fuels and foreign oil supplies, and greenhouse gas emissions that contribute to climate change.
3. Identify and limit the adverse impacts of energy development and use on public health; safety and welfare; the Pittsfield's historic and planned pattern of development; environmentally sensitive areas; and our most highly value natural, cultural, and scenic resources.
4. Encourage a continued pattern of settlement and land use that is energy efficient.
5. 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. Increase public transportation opportunities throughout the community, including park-and-ride access, bus service, biking paths, and sidewalks.
7. Promote greater use of existing public transportation services by community members.

Policies

1. Town officials should 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.
2. Any commercial energy generation facility proposed in Pittsfield must be developed so as to avoid negative impacts on the rural character of the surrounding area. Developers should make all possible efforts to minimize damage to important natural areas as identified in the Natural Resource section of this Town Plan. Additionally, such facilities should be located as close to existing roads as possible to avoid any increase in the services provided by the town.
3. Pittsfield supports the development and use of renewable energy resources – including, but not limited to, residential wind, solar, biomass, micro-hydro, and cogeneration – at a scale that is sustainable; that enhances energy system capacity and security; that promotes cleaner, more affordable energy technologies; that increases the energy options available locally; and that avoids undue adverse impacts of energy development on the local community and environment. Due to topographical limitations, the development of commercial scale windfarms in Pittsfield is not consistent with this Plan.
4. Town officials should support the establishment of a Pittsfield PACE program and other similar statewide programs designed to make energy efficiency improvements more affordable and more likely to be implemented. Town officials should support efforts to educate homeowners about what resources are available to them for energy efficiency improvements.
5. The rehabilitation or the development of new buildings and equipment should use proven design principles and practices to promote energy efficiency, environmental impact, and with the lowest lifecycle costs (cost of owning, operating, maintaining, and disposing of a building or a building system over a period of time).
6. Generation, transmission, and distribution facilities or service areas should be encouraged only when they complement the recommended land use patterns set forth in this Plan.
7. New, significant public investments (including schools, public recreational areas, municipal facilities, and major commercial or residential developments) must be located within or in close proximity to the village, and shall utilize existing roads whenever possible.
8. Encourage the use of broadband services to support energy efficient, small-scale home businesses.
9. Promote energy efficient travel by residents by encouraging carpooling, increased use of public transportation telecommuting, home businesses, and safe bike routes.

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 local residents and businesses.
2. The Town should consider municipal or community-based renewable energy generation, to include municipal or district biomass heating systems, and the installation of individual or group net metered generation facilities on town buildings and property to serve town facilities. Sources of funding for municipal power generation could include third-party financing, municipal funds, bonds, grants, and available government incentive programs.
3. The Planning Commission should identify areas in town that are appropriate for large scale renewable energy production, such as solar.
4. The Selectboard should formally designate an Energy Committee as a Town committee so that they may develop an Energy Action Plan as a supplement to the municipal plan.
5. The Selectboard should authorize a Pittsfield Energy Committee to track municipal energy use and costs (for example: through the EPA's free Energy Star® Portfolio Manager program) and develop an overall energy budget to manage the town's energy consumption, which may also include the development of local generating capacity**.**
6. The Town should continue to implement energy efficiency measures recommended by the Energy Committee for existing and future facilities.
7. The Town, with help from the Energy Committee, should develop municipal procurement and purchasing policies that emphasize products that are energy efficient (e.g., Energy Star® rated).
8. The Town should continue to develop facility maintenance and operation policies that maximize energy efficiency while maintaining comfort levels for employees and visitors.
9. The Selectboard should discuss PACE at a future meeting and decide whether the program should be placed on the ballot for Town Meeting.
10. The Town should continue to explore the potential for public transit opportunities.

X. Economic Development

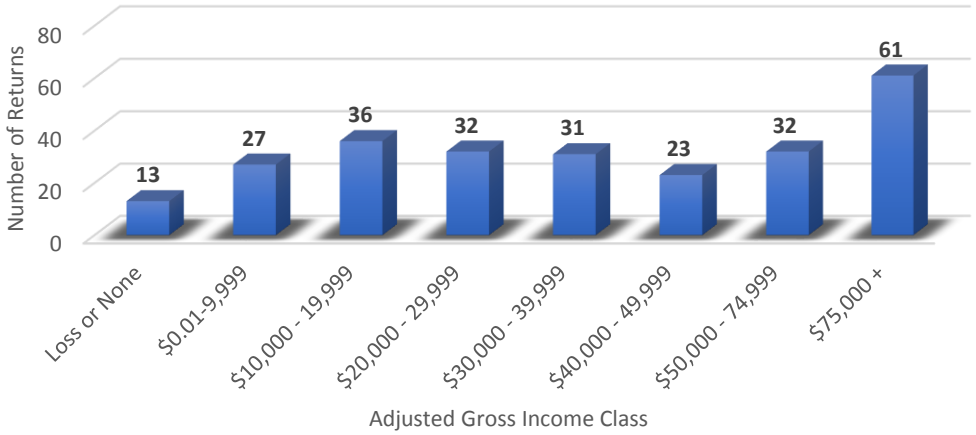
A. Background

Pittsfield's economy is indicative of small rural towns in Vermont. There is a post office, gas station, two small stores and some small businesses, all of which are located in the village. In general, these businesses supply only the essential needs to the residents of Pittsfield, leading most to go elsewhere for goods and services. The nearest destination for goods and services is the City of Rutland which is about 20-25 minutes away. The remaining businesses in Pittsfield are outside the village, many of which are on the scale of a home occupation. Although it is unlikely that Pittsfield will become a hub of commerce like larger towns or cities in Vermont, it certainly can have a viable economy and can encourage continued economic development in Town.

B. Income Statistics

The Vermont Department of Taxes publishes Vermont Tax Statistics, which include town-specific information on the types of returns filed (single, exempt, married filing jointly, etc.) along with the number of returns filed within stated income brackets. According to data on the Town of Pittsfield's 2013 tax returns, the mean tax return filing was for an amount between $30,000 and $39,999, with a median adjusted gross income per return of $35,462. Nearly a quarter of the Town's residents (23.9%) filed returns for an amount over $75,000.

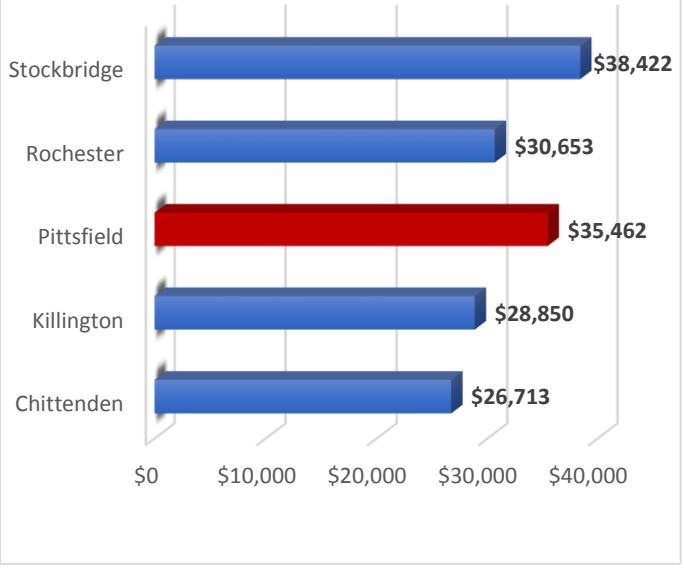
Figure 12: Personal Income Tax Returns by Income Class, 2013



Source: VT Department of Taxes, 2013

When viewed in relation to neighboring towns, Pittsfield has the second highest median adjusted gross income (AGI). The 2013 median AGI of $35,462 was a 10% increase in the 2012 median AGI. Interestingly, this happened at a time when there was a decrease in the number of high income filers earning in excess of $75,000. The federal poverty guideline that is set annually by the U.S. Census Bureau for a family of four was $23,550 in 2013. Based on this figure, over 30% of Pittsfield residents were earning below the poverty threshold in that tax year. This percentage, though, is lower than that of neighboring towns. Lower income levels of many town residents can have serious implications on families' ability to afford housing, transportation expenditures, and residents' ability to pay for other necessities in everyday life, as previously discussed in this Plan's Housing chapter.

Figure 13: Median Adjusted Gross Income, Pittsfield and Surrounding Towns, 2013

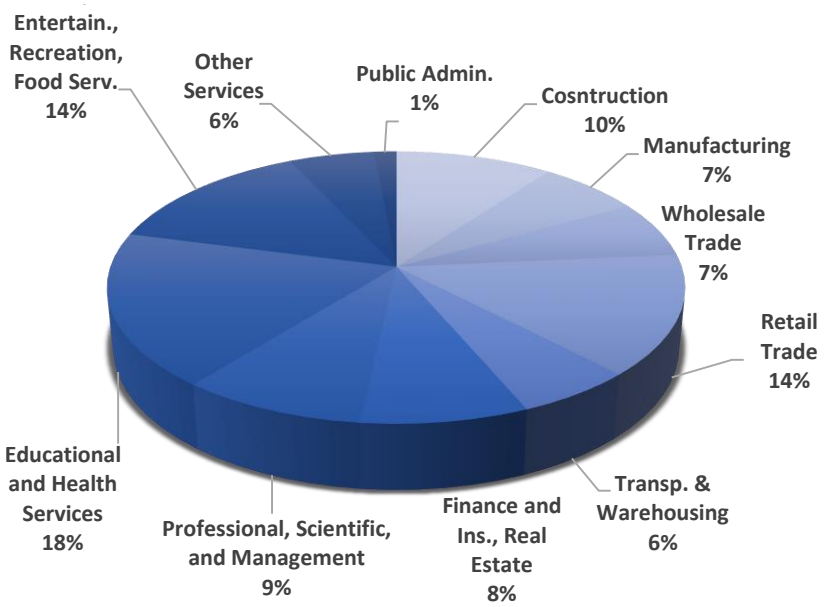


Source: VT Department of Taxes, 2013

C. Occupations in Pittsfield

While Pittsfield is largely a bedroom community for larger regional employment centers, such as Randolph and Rutland, the Town's residents work in a wide range of professional fields. Figure 14 to the right shows the wide array of residents' occupations. With education and health sector employers being amongst the region's most prominent economic anchor institutions, it perhaps comes as little surprise that the largest percentage of residents work in education and health occupations.

Figure 14: Pittsfield Occupations, 2013



Source: 2009-2013 American Community Survey 5-Year Estimates

American Community Survey data for 2009-2013 demonstrates that 94.2% of Pittsfield residents travel by car, truck, or van to work. Only 1.5% of residents walk to work, while 1.2%

bicycle and no one polled uses public transit. This does not necessarily correlate with an intentional avoidance of these commuting methods. Rather, it may reflect a lack of multi-modal transportation opportunities for residents beyond being in a personal vehicle. Over 50% of residents commute under 20 minutes to work, indicating that most residents likely work within a one-to-two town radius of Pittsfield.

D. Farming, Forestry and the Economy

Pittsfield has a history as an agricultural and silvicultural center dating back to its founding, as do most towns in Vermont. These industries helped to shape both the character and the landscape of Vermont and its people. Despite declines in the number of farms and forestry operations in the past century along with constantly evolving market forces that drive demand for Vermont-based goods, these industries still play an important role in the local economy. How we maintain the working landscape and support agricultural and forest-based industries will have a long-term impact on our landscape and our local economy.

While the USDA Census of Agriculture does not provide town-specific data on farm and forestry operations in Pittsfield, American Community Survey data from 2013 shows us that there are no residents who self-identify as being employed in agricultural or forestry occupations. This is not to suggest that there are no other home-based farm and forestry occupations or other businesses (stores, vacation industries, or home-based businesses) in Pittsfield that are reliant on local farm and forestry operations.

An economic restructuring or a shift away from agriculture to the service and tourism industries has placed economic pressure on farm owners in towns like Pittsfield in recent decades. The higher cost of owning land make it difficult to rationalize conventional farming, even with incentives available. 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.

Conserving or otherwise wisely using and managing forest and farmlands in the Town, whether currently in use or not, will help promote environmental integrity, protect fragile natural features, and maintain Pittsfield's landscapes, particularly along the riparian lands in the Town's valley. These industries can help to sustain Pittsfield's rural character while also creating potential jobs and providing creative recreational and educational opportunities. Promoting agricultural and silvicultral industries, whether Pittsfield-based or elsewhere in the region, through farmers markets, community supported agriculture, or other means of patronage, is encouraged.

E. Encouraging Economic Development

Historically, Pittsfield residents have indicated that they would like to have a greater variety of small businesses in Pittsfield, with a focus on "clean industry." "Clean industry" is a term commonly used to describe industries that have little impact on the environment or aesthetics of a town. Such businesses might include information technology, wood pellet production facilities, etc. New businesses in Pittsfield would offer more localized employment opportunities to

residents. Having more businesses in Town would likely result in a greater need for more services, and would make the Town attractive to further economic growth.

Encouraging economic development in a small rural town like Pittsfield is somewhat difficult. Because of its location and small population, Pittsfield is unlikely to become a hub for commerce similar to larger towns like Randolph or Killington. Although there is a small core of vacation and recreation related businesses in town, Pittsfield's proximity to Killington means it will most likely remain a pass-through destination for tourists en route to nearby recreational opportunities.

It is certainly possible for a small town to become a destination that encourages businesses to develop. The key is to utilize niche markets that are not being filled elsewhere. Small communities like Pittsfield must take advantage of local resources, such as their location, physical setting, and citizens. To identify niche markets and determine how to leverage the Town's assets, a comprehensive planning effort must be implemented to guide growth and improve the community.

Leadership is essential to this process, as economic development cannot be willed. Only through a consensus can the Town form a coordinated economic development effort. This is, of course, where the citizens of Pittsfield have the most to offer. Key figures in the community, including small business owners, representatives of town government, and realtors can join forces with active citizens to help create a vision for the economic future of Pittsfield. However, because economic development takes time, all who participate in the process must be committed to a common vision of what the Town wants to be in the long-term.

In order to begin the process of economic development planning, citizens will have to determine what and who the Town's assets are. Likewise, it will need to identify what the key needs in Town are and whether they can be realistically offered locally. Using this information, the Town should develop a mission that will help guide those involved toward the ultimate goal of encouraging economic development in Pittsfield.

The Green Mountain National Forest (GMNF) represents a value for the Town of Pittsfield as it is a prime recreational area. Local businesses offer nature tours and various outdoor activities including hiking and biking. Campers utilize camp sites within the GMNF in Pittsfield. In winter, snowmobilers have access to a wide range of trails throughout Pittsfield and the GMNF. All of these tourists bring dollars to local businesses, and should continue to be supported. In addition to tourism, there is a substantial amount of wood material that, with the permission of the GMNF, could be sustainably harvested to support local wood manufacturing facilities should they be developed.

Most economic development in Pittsfield should center on the village center, which is the most accessible and concentrated area of development in Town. The Pittsfield Village Green offers an excellent opportunity to bring people into town as a location for special events, such as farmer's markets and bazaars. The value of Pittsfield's Village Center is further bolstered by the availability of high speed internet. In 2005, the village of Pittsfield was granted Village Designation status by the State of Vermont. The Downtown/Village Designation program offers tax credits to commercial developers for the substantial redevelopment of structures located within a downtown or village center, as well as priority consideration for a number of state grant programs.

K. Goals, Policies and Recommendations

Goals

1. Encourage the creation of new and improved job opportunities while maintaining the rural character and natural environment in Pittsfield.
2. Support the maintenance of existing businesses and the development of new businesses in Town, including home-based businesses.
3. Nurture a strong and diverse regional economy that provides satisfying and rewarding employment opportunities for residents while maintaining environmental standards.
4. Strengthen and maintain the Town's agricultural, forest, and recreational economies, and to ensure continuance of the small town village and rural character.

Policies

1. Maintain and enhance natural, historic, cultural, and recreational resources that provide an outstanding quality of life to attract new businesses, employees and tourists to town.
2. Protect the long-term viability of natural resource based industries by preserving rural open spaces and through good stewardship of the land.
3. Prohibit development that has the effect of creating sprawl in Pittsfield.
4. Primary retail development in Pittsfield shall be located in the designated Village Area.
5. Economic development activities shall occur in harmony with the Town's historic physical environment, and traditional development pattern of a densely developed center surrounded by rural countryside.
6. Development shall be directed away from prime agricultural to marginal soils.
7. The Town should maintain the Village Designation status of Pittsfield's village.
8. Cooperate with neighboring towns, regional planning commissions, and economic development groups to plan for and maintain a balance between the type and number of jobs created and population growth in the region.
9. Support the development of local enterprises that create markets for locally produced goods and services.
10. Attract diverse and sustainable businesses in Pittsfield that provide jobs and contribute to the small town quality of life.
11. Encourage new business development in appropriate locations where services such as roads, fire protection, and power supply are available or planned.

Recommendations

1. Pittsfield should consider the creation of a local economic development committee that would encourage the growth of appropriately scaled businesses.
2. Encourage the development of a local farmer's market.
3. The Town should conduct a simple inventory of local businesses to determine what goods and services are available in town, and where market gaps exist that may be filled by new business enterprises.

4. Encourage and support the development of information technology and communication infrastructure that is necessary for economic growth and vitality.
5. Support efforts to expand public transit opportunities within the Village Area.

XI. Natural, Scenic and Historic Resources

A. Wetlands

Background

Wetlands are ecologically fragile areas, and how these lands are managed has a direct bearing on the quality and quantity of water resources. The State of Vermont defines wetlands in the following manner:

> "Wetlands" means those areas of the state that are inundated by surface or groundwater with a frequency sufficient to support significant vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. Such areas include but are not limited to marshes, swamps, sloughs, potholes, fens, river and lake overflows, mud flats, bogs and ponds, but excluding such areas as grow food or crops in connection with farming activities.[17]

The Vermont Water Resources Board estimates that wetlands comprise less than 5 percent of the surface area of Vermont. In addition to being Vermont's most productive ecosystem, wetlands serve a wide variety of functions beneficial to the health, safety and welfare of the general public, including the following:

- Retaining storm water run-off, reducing flood peaks and thereby reducing flooding;
- Improving surface water quality through storage of organic materials, chemical decomposition and filtration of sediments and other matter from surface water;
- Providing spawning, feeding and general habitat for fish;
- Providing 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.

In 1986, Vermont adopted legislation for the protection and management of wetlands (10 V.S.A., Chapter 37). Determination of whether a wetland merits protection is based on an evaluation of the extent to which it serves the general functions outlined in the bulleted list above.

Under the Rules, if land development can be expected to impact a protected wetland, such activity cannot commence unless the Vermont Agency of Natural Resources first grants a Conditional Use Determination (CUD). A CUD will be granted when the proposed use will not have an undue adverse impact on the function of the wetland. In many cases, such approvals are granted with conditions to mitigate impacts and to more readily protect wetlands.

For Pittsfield, as well as the State, the most significant wetlands have been mapped and are included as part of the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service. These wetlands have been delineated on USGS topographic maps, and by reference are made a part of this Plan (see Map 3, Natural Resources). Other smaller wetlands often do not show

on these maps; hence, a field determination by a qualified biologist is needed for most activities that involve state permits.

In those towns 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 VSA § 4409). It is important to note that future investigations of wetlands within Pittsfield may result in additional areas being determined as significant or important for conservation.

Goals, Policies and Recommendations

Goal

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

Policies

1. Structural development or intensive land uses shall not be located in significant wetlands or within buffer zones (the areas contiguous with a significant wetland which serves to protect those values and functions sought to be preserved by its designation) to significant wetlands.
2. Developments 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.
3. Development is not to be located in or allowed to fill in or alter any mapped wetland area.

Recommendation

The Town should conduct an inventory of wetlands to determine where, if any, wetlands that have not been mapped by the State of Vermont are located.

B. Flood Hazard Areas and Floodplains

Background

There is a general scientific consensus that our climate change is in large part due to human activity. According to the U.S. Global Change Research Program, changes in climate extremes may not result in more rain overall, but in an increase of extreme weather events. Flood frequency and amplitude may increase in some regions while other areas may experience drought.

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

Floodplains (lands adjacent to watercourses) 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.

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, as with Tropical Storm Irene in 2011. In some cases, recovery costs to the public sector 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.

White River Corridor Management Plan (WRCMP)

In April of 2008, the White River Partnership, as part of the Vermont Department of Environmental Conservation River Corridor Management Program, conducted a community-based river corridor management plan for the Tweed River basin, including portions of the river and its tributaries in Pittsfield as well as neighboring Stockbridge and Killington. The result of the assessment indicated that, due primarily to extensive straightening and channelization, much of the Tweed River has lost access to historical floodplains and that those floodplains have subsequently been developed. Loss of access to floodplain means greater flows are contained within the river channel at high flow events, making the flow of water much more capable of damaging the surrounding area. This increased stormwater, combined with frequent ledge and bedrock outcrops, has elevated impacts during flood events.

The study recommends a "passive restoration" approach to managing excessive flooding along the Tweed River. Passive restoration allows the stream to return to a natural equilibrium, primarily by the removal of human constraints within the river corridor. Over an extended time, the stream will regain meanders and access to its floodplain by use of its own energy and watershed input. Active buffer revegetation along with long-term protection of the river corridor, is essential to this approach. This alternative is less expensive than active restoration, but often requires a longer time period to achieve equilibrium conditions.

Additionally, the WRCMP recommends that Pittsfield (and its neighbors) adopt Fluvial Erosion Hazard (FEH) language as part of their flood hazard ordinances. FEH is discussed in detail below. Other options include setbacks, buffers and zoning overlay districts designed to limit development in the floodplain and encourage passive restoration of the Tweed River.

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 take into account

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 (See Map 2 – Current Land Use, Flood Plain "FEMA FIRM") for the Town of Pittsfield, which includes flood hazard areas for the First Branch of the White River and for major streams and ponds. This map is on file at the Town Office (on the official flood hazard maps as well as the Future Land Use Map of this plan) and at the Regional Commission. The topography of Pittsfield is such that there are few areas low enough to be in the FEMA Flood Hazard Area. The designated area runs through Town along Route 100 adjacent to the Tweed River and along the portion of the White River that is in Pittsfield. If in doubt when developing, contact the Pittsfield Zoning Board of Adjustment or the Town Office.

FEMA also administers the National Flood Insurance Program, which provides flood hazard insurance at subsidized rates for property owners in affected areas. Even at a federally subsidized rate, the costs of insurance may be prohibitive for some landowners. In order 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.

The Town of Pittsfield adopted an updated Flood Hazard Bylaw in 2014, and is recognized as a participating community in the National Flood Insurance Program. Flood insurance coverage is only available to landowners in towns that participate in the program.

There are 24 residential and 3 commercial/industrial/public structures in the 500-year floodplain, which equal $6,972,000 if all properties were damaged/destroyed in a severe flooding event. Additionally, there are six structures located within the river corridor, which is defined as the "land area adjacent to the river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel," according to state statute [10 V.S.A. § 1422(12)]. Mortgage lending institutions require as a prerequisite to financing that flood insurance be purchased on property subject to flooding. Homeowners who do not have a mortgage can still get flood insurance through the NFIP.

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 is a reflection of 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 in close proximity to stream channels. River channels that are undergoing an adjustment process as a result of historic channel management activities or floodplain encroachments oftentimes respond catastrophically during large storm events.

Historically, landowners and local government have relied on the standards and the flood hazard boundary maps provided by the Federal Emergency Management Agency (FEMA) though 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.

In 2006 and 2007, the White River Partnership, in concert with Vermont River Management Program mapped the dangers of fluvial erosion hazards (sideways erosion) in the White and Tweed rivers. This process, known as fluvial erosion hazard (FEH) mapping, produced data that can be used in addition to FIRMs to more fully recognize flood dangers. The resulting reports from the White and Tweed River Corridor Management Programs indicated that due primarily to extensive straightening and channelization, much of the Tweed River and parts of the White River have lost access to historical floodplains and those floodplains have been subsequently developed. The Reports recommend passive restoration (as opposed to active floodplain or meander restoration, armoring or further channelization) to help reduce conflicts between land use and river evolution processes.

Future development in Pittsfield shall be limited or, in some cases, prohibited in proximity to streams or rivers, namely the Tweed or White Rivers. Additional information on this can be obtained in the 2014 Pittsfield Flood Hazard Area Regulations.

C. Flooding and Land Use

Floodplains, as with wetlands, are fragile areas which are part of the land and water interface between lakes, ponds, rivers and streams. How these lands are managed has a direct bearing on the quality and quantity of water resources, as well as the safety of the Town. Flood hazards can be exacerbated by poor development practices, including: allowing development in the floodplain without accounting for "no net fill;" channelizing or straightening river segments; and eliminating buffer areas next to rivers and streams.

The potential for flooding can be reduced by adopting the following policies:

1. Structural development or intensive land uses are discouraged from locating in Class I and Class II wetlands. (See Map 3 – Natural Resources.)
2. Developments, and their associated stormwater discharges, that are adjacent to wetlands should be planned so they do not cause undue disturbance to wetland areas. Maintenance of naturally vegetated buffer strip between a wetland and the project site is encouraged to prevent ground water pollution and direct discharges into a wetland.
3. Structural development and placement of fill within the limits of the 100-year floodplain is discouraged. Where careful planning at the local level accepts development within the floodplain, the development should be designed to achieve no-net-fill, and located so they

do not impede the floodwaters and endanger the health, safety, and the welfare of the public. No structural development, except bridges, should be located within the limits of a floodway.

4. Natural areas, non-structural outdoor recreational sites, and agricultural uses are the preferred land uses within floodplains. Commercial, industrial, and residential uses are discouraged, except as noted above.
5. Development outside of existing or planned settlement areas should not be located closer than 50 feet adjacent to watercourses, lakes, ponds, or shorelines. Such areas shall principally be maintained in a natural vegetative state for environmental and aesthetic purposes.
6. Public and community water supply watersheds shall be protected by limiting development to low densities and by encouraging forest and agricultural best management practices including high standards for erosion control and measures to minimize runoff.

Goals, Policies, and Recommendations

Goals

1. Enhance and maintain use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land.
2. Ensure no net loss of flood storage capacity in an effort to minimize potential negative impacts, such as loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.
3. Maintain maps that reflect as accurately as possible the flood hazard areas to assist in appropriate land use decisions.
4. Recognize that all areas adjacent to unstable rivers and to steep streams may be at risk of erosion during floods.

Policies

1. The preferred uses for flood hazard areas shall be for open space, greenbelts, and agricultural uses or non-commercial recreational.
2. Any land use activity (filling, or removal of earth or rock) within flood hazard areas which would result in a net loss of flood storage or increased or diverted flood levels or increased risk to adjacent areas shall be prohibited.
3. 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 are relatively protected from flooding damage.
4. Flood hazard regulations should be extended to areas identified as at risk to flood erosion.
5. It is the policy of the Town to maintain membership in the National Flood Insurance Program.

Recommendation

The Zoning Board of Adjustment should consider limiting new development within the floodplain to include only recreational and agricultural uses.

D. Water Resources

Background

Water resources include aquifers (groundwater) and surface waters. The continued availability of clean, high-quality drinking water is a concern for all Vermonters¸ and sustainable yields of quality water are necessary for the lives and livelihood of citizens of Pittsfield. Because of this, the Groundwater Management Act was passed by the Vermont Legislature and signed into law by Governor Jim Douglas in 2006. This Act [10 V.S.A. chapter 48(5)] is designed to help define the groundwater system, enable greater scrutiny of commercial water extraction operations and provide for the study and mapping of groundwater resources throughout the State. Pittsfield 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 to apply.

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. There are several private wells in Pittsfield that have been designated as a Source Protection Area (the former Stanley Tools Plant and Wintergreen Condos) by the State of Vermont, but none of them are for public use.

The health of Pittsfield's surface waters is essential to maintaining quality groundwater, as well as an important element for outdoor recreation and natural beauty. There are a number of state and federal programs that help fund stream-management projects, such as the Conservation Reserve Enhancement Program (CREP). CREP provides funds to farmers for the purpose of 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, with the exception of 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, Policies and Recommendations

Goals

1. Maintain or enhance the quality and quantity of drinking-quality resources.
2. Allow groundwater resources use by new developments in a manner that protects the public right to adequate quality and quantity of the resource.
3. Consider surface water and groundwater impacts and effects related to proposed or existing uses of land.
4. Maintain or improve surface water quality and quantity.

Policies

1. Land use activities which potentially threaten groundwater quality or water available to the public must be carefully reviewed and monitored to prevent undue loss of groundwater quality and supply.
2. Maintenance or enhancement of water resources for recreation, fisheries, necessary wildlife habitats and quality aesthetics are high priorities. Water resource policy and practices shall be designed to protect these uses.
3. The location, sizing and density of on-site sewage disposal facilities should be determined by the capacity of the soil, the natural limitations of the site, and underlying substrata conditions, such as depth to bedrock and seasonal high water tables. For the most current information regarding permitting, see www.anr.state.vt.us/dec/ww/rules.htm.
4. 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.
5. 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.
6. Development in Pittsfield shall be permitted where 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.
7. 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.
8. 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.

Recommendations

1. Support the White River Partnership water quality monitoring and watershed planning efforts for the Tweed and White Rivers.
2. Investigate maintaining and improving public access to the river for recreational use.
3. Conduct a mapping study of groundwater resources in Pittsfield.

E. Flora, Fauna, and Natural Communities Wildlife Resources

Background

In Pittsfield, there is a broad range of plant 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, plant 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.

Wildlife is one of the popular attractions to the area and provides some citizens of Pittsfield with direct and indirect livelihoods from sports, tourism and direct harvest of wildlife. Additionally, the interconnection of wildlife with their environment has an impact on the natural environment. Wildlife management requires management of human activities around animals as much as management of animals around human activities. Managing for specific species is not as desirable as managing for the entire ecosystem supporting the species. A diverse system of wildlife is a sign of a thriving ecosystem, and Pittsfield wishes to maintain and enhance the health of this system.

Pittsfield's fields, forests, wetlands and streams are home to a diverse and healthy wildlife population that includes bear, bobcat, moose, deer, otter, geese, ducks, and mink, to name only a few. Nearly all open space provides habitat for game and non-game species. There are, however, some areas in Pittsfield which provide critical habitat that should remain intact. These areas include wetlands, deer wintering areas, bear mast stands, and edge (the transition zone between two cover types, such as field and forest). Development or logging in or adjacent to these areas should consider wildlife implications during the planning process.

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 canopy closure, species of softwoods, and stand age, also figure into the quality of the wintering area.

Most important when considering development and its impact on wildlife is the concept of habitat fragmentation. Albert Todd, the Environmental Protection Agency liaison, in the February 1999 issue of Journal of Forestry, summed up the impact of forest fragmentation:

> 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 totally 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.

Some studies focusing on wildlife fragmentation have been conducted in Vermont, but only on a limited basis. At some point, it may be wise for Pittsfield to attempt to study this important element of wildlife preservation.

It should be noted that the majority of lands in Pittsfield are part of the Green Mountain National Forest (GMNF), and therefore are under the control of the Federal Government and are out of Pittsfield's jurisdiction to regulate. The GMNF plan is updated every 10-15 years, the last update occurring in February of 2006. During the update period, Pittsfield will be given an opportunity to comment on forestry management policy. There are also specific projects outlined in the 2006 plan which allow additional public input, such as the Forest-Wide Non-Native Invasive Plant Control Project.

Goals, Policies and Recommendations

Goals

1. Maintain or enhance the natural diversity and population of wildlife, including natural predators, in proper balance.
2. Restore stable populations of endangered or threatened wildlife in appropriate habitat areas.
3. Maintain or improve the natural diversity, population, and migratory routes of natural species.
4. Allow sport and subsistence hunting of ecologically sound intensities to provide continued success of the species.

Policies

1. Wildlife populations and natural diversity should be maintained or enhanced.

2. Long-term protection of major habitats through conservation easements, land purchases, leases and other incentives is encouraged.
3. Protect deer wintering areas from developments and other uses that adversely impact these areas.
4. Development other than isolated houses and camps shall be designed so as to preserve continuous areas of wildlife habitat. Fragmentation of wildlife habitat is discouraged. Effort shall be made to maintain connecting links between such areas.
5. Preference shall be given to development that utilizes existing roads and field lines.

Recommendations

1. Encourage owners of necessary habitat for threatened species to contact the State for assistance in developing a management plan for these sites.
2. Identify wildlife corridors in Pittsfield.
3. The Town should take an active role in the next revision of the Green Mountain National Forest Plan revision.

F. 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 Pittsfield, 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 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.

Goals, Policies and Recommendations

Goal

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

Policy

New occurrences of invasive species should be controlled to prevent further infestations.

Recommendations

1. Town employees, contractors, businesses, and residents should become familiar with the best management practices to prevent the accidental spread of invasives.
2. The Town should time roadside mowing to minimize and reduce the spread of invasive species.

G. Mineral Resources

Background

The use and management of Pittsfield'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. In spite of this, public and private interests are oftentimes in conflict over use of the resource. It is in the interest of the Pittsfield 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 are in conflict with other stated goals in this Plan.

Goals, Policies and Recommendations

Goal

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 Pittsfield.

Policies

1. Pollution, noise, and vehicular traffic shall be considered as part of the decision-making process when reviewing proposed gravel extraction projects.
2. Existing and proposed mineral extraction and processing facilities shall be planned, constructed, and managed,
    - So as not to adversely impact existing or planned uses within the vicinity of the project site;

- To not significantly interfere with the function and safety of existing road systems serving the project site;
- To minimize any adverse effects on water quality, fish and wildlife habitats, viewsheds and adjacent land uses;
- To reclaim and re-vegetate sites following extraction;
- To minimize noise impacts on adjacent uses including residential areas; and
- To minimize any potential health and safety impacts that may occur as a result of extraction, processing and transport of materials.

H. Significant Natural and Historic Areas

While Pittsfield 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. Much of the Town grew in a linear fashion, developing as a nineteenth century commercial and milling center for the Upper Tweed River Valley.[18] Numerous historic sites sprung up around the narrow strip along the Village Green in the Village Center Area, some of which remain today and often boast scenic views to surrounding mountainous and riparian viewsheds. These lands are what most residents agree make Pittsfield the place that it is today. These areas include:

- **Pittsfield Village Green** → The original village green that is situated along Route 100 was dedicated in the eighteenth century, and is used primarily in warmer months for band concerts, auctions, bazaars, flea markets, and other community events. It features a gazebo that was added to the park space in 1941.
- **Town Office** → Originally built in 1883, this Greek Revival style building served as Pittsfield's schoolhouse until 1969. It now houses both the town clerk's office, the Town library, and a number of meeting spaces.
- **Pittsfield Federated Church** → The Pittsfield Federated Church serves two local congregations that merged in 1925: a Methodist congregation that dates back to as early as 1802 and a Congregational Church established in 1803. The building dates to 1917, and was built in the Neo-Gothic Revival style, including a number of large stained glass windows.
- **Town Hall** → The Town Hall was originally built as a church in 1830. It was constructed in the Greek Revival style, and is one of many distinctive historic structures located along the Route 100 Village Green area. It is immediately adjacent to the Town Office Building.
- **The Route 100/Tweed River Corridor** → Running largely parallel to the Town's river, Route 100 offers scenic views of the village, local farms, and other open space areas that straddle the Green Mountain foothills and national forest. This roadway has been recognized as one of Vermont's, if not New England's, most scenic highways.
- **Other historic buildings** → The Town's historic buildings include an array of residences, a tavern, barns, a village schoolhouse, and a church. These structures predominantly date to the 1800s, and are built in a range of styles, including Greek Revival, Vernacular-Greek and Italianate, Georgian, and Queen Anne. There are 25 structures in total that are on the State Register of Historic Places. The majority of buildings are located within Pittsfield's historic village center along Route 100 between Upper and Lower Michigan Roads. They

all have a significant role to play in connecting the Town to its historic roots, and greatly enhance to Town's character. A more in-depth description of the Town's numerous historic architectural resources may be found in the Vermont Division for Historic Preservation's 1988 "The Historic Architecture of Rutland County," which is part of the state's register of historic places that is available at the Town Office.

I. 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. It would be the responsibility of the Conservation Commission to receive any funds designated for mitigation of prime agricultural lands in the event of an Act 250 finding during development of those lands.

The Conservation Commission, at the discretion of the town, can manage a fund that 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. Pittsfield does not have a CC at this time, but may wish to create one in the future for the preservation and management of the Town's unique sites and resources.

J. 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.

Pittsfield could become an active participant in land conservation through the creation of a conservation fund. This fund, which is generally funded on a yearly basis, would contain funds that a Conservation Commission could use 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 of 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. Presently, Pittsfield does not have either zoning or subdivision

regulations established. If they sought to enact them at any time, regulatory land protection methods could include any of the following:

- **Overlay Districts** → The creation of overlay districts is the most common method of regulating specific areas for the purpose of 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 (Density-based Zoning)** → 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.

Goals, Policies and Recommendations

Goals

1. Identify and protect the natural and historic resources that are unique to Pittsfield and make the Town special.
2. Preserve and protect Pittsfield's important cultural and natural resources for future generations.
3. Allow for reasonable development without sacrificing important cultural and natural resources.

Policies

1. Ensure careful review of all development projects to minimize the impact on Pittsfield's natural and cultural resources.
2. Unique resources shall be protected through careful and deliberate planning.
3. Sustainable use of the Town's working landscape (forest and agricultural resources) shall be encouraged.

Recommendations

1. The Selectboard should consider creating a Conservation Commission.
2. The Selectboard should consider the establishment of a conservation fund, to be administered by a Conservation Commission, for the purposes of conserving natural or culturally significant areas in Pittsfield.

XII. Land Use

A. Introduction

In terms of planning, one of the most complex discussions is about how land will be used in the future. How a town uses its land and plans for future land development can affect a wide range of issues, including the town's character and its ability to provide services adequately and at a reasonable price. In order to ensure that the impacts of future development in Pittsfield do not have unintended consequences, the Town's growth must be managed to reflect the vision of this Plan.

This section discusses both current and future land use patterns, and provides goals, policies, and recommendations for future implementation. Vermont Statutes Title 24, § 4411(a) authorizes towns to implement land use regulations, such as zoning, subdivision, and site plan review, provided that those regulations are in conformance with both this Plan and § 4302 of Title 24, which addresses the state's planning goals. In 2004, the state legislature passed Act 115 to more clearly define "conformance with the plan." It states that:

> *All such regulatory and nonregulatory tools shall be in conformance with the plan, shall be adopted for the purposes set forth in section 4302 of this title, and shall be in accord with the policies set forth therein. [§4411(a)]*

A wide range of tools are available to town planners for the purposes of implementing the Town Plan. These tools include subdivision regulations, zoning bylaws, capital budget and programming, as well as other ordinances (see chapter XX for more information). All of these tools must conform to the policies of the Town Plan, and, once drafted, the Planning Commission is required to issue a report on how the newly drafted tools implement the Plan.

B. Current Land Use

Pittsfield remains much as it has been for centuries, with a relatively densely populated village center surrounded by sparsely populated countryside. The Green Mountain National Forest (GMNF) takes up such a substantial amount of land in Pittsfield that the Town has one of the smallest physical settlement areas of Vermont's towns and cities. Most of its easily accessible land lies within the narrow valley that is transected by Route 100, which is bordered on one side by the GMNF and the Tweed River on the other. This reality creates some difficulty for Pittsfield. With a limited amount of developable land, it is complicated for Pittsfield to maintain the same type of rural character while allowing a natural level of growth.

Goals

1. Continue Pittsfield's historical land use pattern of denser development within the village and sparser residential development in the countryside.

2. Maintain the rural character of Pittsfield through a balanced consideration of developmental pressures, natural resources limitations, agricultural activities, and home-based occupational opportunities.

C. Land Use Regulation

Historically, the citizens of Pittsfield have generally taken a "no regulation" stance when zoning has been considered. Previous drafts of zoning have far fallen short of the votes needed for adoption on two past occasions. This is not to state, however, that the issue may never be raised again. Rather, it is in the interest of the Planning Commission and Town at large to reconsider zoning regulations if the time is ripe for such discussions at a later date.

Towns without land use regulations outside of town plans are always at risk when a large-scale development is proposed. Because of this, State regulators have designated all towns without such land use regulation as "1 Acre Towns" for the purposes of review under Act 250. This designation means the following:

- Any commercial or industrial developments involving over one acre of property triggers a review under Act 250.
- The subdivision of land into six or more lots within a continuous period of five years triggers a review under Act 250.

Under Criterion 10 of Act 250, any proposed project must conform to all duly adopted local and regional plans. It seeks to ensure that new development respects the wishes of Vermont citizens about the future of their town and region.

The Environmental Board has often found it difficult to interpret town plans in a regulatory proceeding because of their inherently vague and non-specific language. Town plans are generally considered visionary documents, and, though not intended to be the word of law, will be used by the Environmental Board for direction if zoning laws do not exist. Considering that Pittsfield does not have land use regulations at this time, the Town must specify the standards it expects a developer to meet if it wants the Town Plan to have controlling weight under Act 250. To that end, Pittsfield's planners have chosen explicit language to ensure that the Town Plan gives a clear message to an environmental board if the need arises.

General Land Use Goals

1. Continue consideration of the pros and cons of land use regulation (i.e. ordinances or zoning).
2. Recognize that each property is not isolated from others, and ensure responsible development and natural resource management within the community.
3. Development and resource management shall not interfere with public or private water rights.
4. Strengthen the Town Plan with direct and clear language in order to give the District Environmental Commission and Vermont Environmental Board a clear understanding of the Town's desires in the event of an Act 250 hearing.

D. Future Land Use

When surveyed by the Planning Commission, residents have indicated that they would like to maintain the present-day aesthetics of Pittsfield. Residents confirmed that they want to maintain the existing settlement patterns, but are unwilling to regulate how land should be developed.

This document recognizes that not all land is equally suited for all types and intensities of development, and that certain areas of Pittsfield have unique characteristics that are worthy of protection. It is the basic premise of this Plan that future land uses be sensitive to both the physical limitations of a site and to the overall rural character of the Town. Accordingly, four separate geographical areas have been defined in this section and the physical boundaries of each are defined (for planning purposes only) on a proposed Land Use Map. For each area below (Village Center Area, Route 100 Corridor Area, Flood Hazard Area, and Residential Area), the purpose is stated and policies are offered in terms of the compatible types of development, intensity of use, and the conservation of natural resources.

While existing use of land and structures may not be entirely consistent with these proposals, it is the goal of this Plan that all future land development be in conformance with these policies.

E. Village Center Area

Pittsfield's Village Center Area covers the more densely developed portion of Pittsfield that runs along Route 100. In 2015, Pittsfield acquired Village Designation through the Vermont Downtown Program, which mirrors the footprint of the Town's Village Center Area. The purpose of the Village Center land use area is to provide for the continuation of Pittsfield's village center as a social and physical center of community services; to enable higher density residential and non-residential uses in the traditional village setting; and to protect and enhance its character and quality in the future.

The scenic village of Pittsfield is a distinct and dynamic entity, serving as the historic commercial center of the Town and the focal point of the community's social life. Future development should respect this traditional settlement pattern, its architecture, building proportions and land capability as well. A mix of uses is appropriate in this area, including small-scale commercial and primary retail, residential (including multi-family housing), or public uses. Large scale development (typified by buildings over 10,000 square feet) is not consistent with existing development and shall be prohibited. Efforts to disperse services, such as the Post Office, shall be discouraged, as well as commercial activity in excess of the availability of parking or the ability of the village to absorb the additional people and traffic.

Goals and Policies in the Village Center Area

Goal

1. Maintain a viable village center through good planning and subsequent development.
2. Provide a location for thoughtful residential and commercial development at a size and scale consistent with the existing village center that does not negatively impact Pittsfield's ability to provide services or the rural and natural character of the area.

Policies

1. The density of development in this area should reflect existing settlement patterns, land capability, and the availability of utilities for expansion.
2. Shops, services, professional offices and public facilities should be developed at a scale that does not negatively impact parking, pedestrian safety, noise pollution, light pollution, traffic congestion, and is designed consistent with existing characteristics.
3. Locate primary retail establishments within the village (excluding those retail establishments that require substantial area for storage of materials, such as lumberyards and nurseries).
4. Rehabilitation and renovation of structures and older buildings of historic merit is encouraged to enable new and more economical uses of property and to avoid obsolescence.
5. Where new development is being planned, efforts should be directed to ensure that such development shall be complementary and compatible to the configuration of existing buildings and streetscape. Development shall respect traditional scales, proportions, and shapes of the surrounding village.
6. Major public investments, such as improvements to Route 100, should be encouraged and endorsed only on finding that they will not have an undue adverse impact on the character or function of the Village Center. Prior to the commencement of plans, state planners should consult with the Town and affected property owners regarding these types of activities.
7. The Plan supports pedestrian enhancements that will promote walkability and safety.

F. Route 100 Corridor Area

Vermont Route 100 parallels the Tweed River and its branches along the valley floor, running through the Southeast corner of Pittsfield. This valley floor is a key component of Pittsfield's rural character. The value of much of the Route 100 corridor area stems mainly from its scenic and agricultural qualities. These lands are highly visible from Route 100, the major road through Pittsfield. Therefore, the open meadows and fields that make up this area are seen and enjoyed on a daily basis by local residents, and may present the only image of Pittsfield to those who are merely passing through. It is this area, with its open views to distant hills and peaks, which contributes to the beauty of the Route 100 corridor. Most of the open space in the Route 100 corridor area still retains some agricultural value. That is, much of the land can still be used for hay, small crops, and small pasturing. The Town of Pittsfield believes that the Route 100 corridor area should continue to be able to be used for agricultural, open space, and scenic purposes, and that new development must be sited and designed in such a manner as to be compatible with existing land use.

There is little commercial development along this road, with the obvious exception of what lies within the Village Center Areas. Any development that occurs in this highly visible area should be designed so as to minimize the impact on the rural character of this area, while allowing for some future growth (see Map 4 - Future Land Use Map). The Route 100 Corridor Area is an appropriate location for light industrial development, provided that developers make all efforts to protect the visual character of the area through use of screening, locating structures on the edges

of open fields, or away from roads, etc. Commercial development that is not agricultural in nature is better suited for the Village Center Area. Development should only be allowed if it does not have an undue adverse impact on the existing character of the Route 100 Corridor Area. In all cases, development that would be commonly considered to be urban sprawl is prohibited. This includes developments such as gas stations, convenience stores, etc.

Due to the constant ebb and flow of the Tweed River, the Route 100 valley floor has the most concentrated amount of prime agricultural soils in Pittsfield. Prime Agricultural land is defined by the National Soil Conservation Service as land that is well suited for the production of food, feed, forage, fiber, and oilseed crops, with the soil quality, growing season, and moisture supply needed to produce economically sustained high yields of crops when properly treated and managed. This definition, although one dimensional (focused only on growth of products and not taking into account aesthetic values), does point out the value these soils represent to farmers. Therefore, any development in this area must carefully consider the potential negative impacts on Prime Agricultural soils, and attempt to mitigate them.

The Tweed River is also a center for recreational opportunities in Pittsfield. Access to these opportunities should not be impeded by development in this area. Access to the river allows for swimming, fishing, and other activities. Further, it is a thriving riparian ecosystem that would likely be upset if development were allowed to occur unchecked in the valley.

The Route 100 area is to remain largely open and scenic while retaining the recreational, agricultural, and ecological value of the land. Large-scale developments, such as condominiums and industrial developments, are inappropriate in this area. The permitted density of development in this area, whether for commercial or residential uses, must be lower than the Village Center Area, while respecting the predominantly rural, agricultural nature of the area.

Goals and Policies in the Route 100 Corridor Area

Goals

1. Maintain the distinct scenic value of the Route 100 corridor by allowing only well-planned, carefully designed, low--impact development.
2. Protect the availability of Prime Agricultural Farmland in the Route 100 corridor.

Policies

1. The density of development in this area should reflect the existing and diffuse settlement patterns.
2. If more than one building is to be included in a development, the buildings should be clustered to avoid impact on the rural character of the Route 100 Corridor.
3. Buildings and roads should be located at the edges of woodlands and fields, along hedgerows, etc., in an effort to preserve tillable units, whether or not in the same ownership.

4. Commercial development in this area should be limited to low-impact light industry, and agricultural businesses that are located in clusters, properly screened and set back from the highway in order to avoid an undue adverse impact on the visual character of the area.
5. Land use activities which potentially threaten groundwater quality should be carefully reviewed and monitored to prevent undue loss of quality to groundwater.
6. Development on Prime Agricultural soils is discouraged.
7. Development that is commonly considered to be urban sprawl is prohibited.

G. Flood Hazard Area

The Flood Hazard area follows the major rivers in Pittsfield, including the Tweed River and its branches and the White River as well. For more information on Flood Hazard Areas, see the Flood Resiliency and Natural Resources chapters of this Plan and the Pittsfield Flood Hazard Area Regulations adopted in 2014.

Floodplains are often excellent agricultural land due to the thick layers deposited river-borne soil. Floodplains also provide natural storage of floodwaters resulting from snowmelt or severe or prolonged rainstorms. Floodplains are poorly suited for structural development. It is prudent Town policy, from a public safety standpoint, to discourage structural development and substantial investment in floodplain areas.

Goals and Polices in the Flood Hazard Area

Goals

1. Agricultural use is encouraged on the high-quality soils of the floodplain.
2. Recognize and maintain the flood plain functions of the valley, particularly sediment storage and nutrient retention.

Policies

1. New development, except for minor improvements to existing structures within the building footprint or relating to infrastructural or health and safety concerns within the limits of the 100-year floodplain, is prohibited.
2. Development within the floodplain should take into consideration the inevitable changes that will occur in the river's location over time and make all possible efforts not to interfere with this natural process.

H. Residential Area

The Residential Area encompasses all areas in Pittsfield not designated in the land use areas previously discussed in this chapter. Its primary purpose is to protect the natural landscape while allowing a reasonable mix of low-impact uses that perpetuate the pattern of development that has occurred in Pittsfield.

The Residential Area is a mix of residential and agricultural/recreational development. Appropriate uses in this area include farming, forestry, supporting retail and service providers,

residential development, home occupations, recreation, agriculture, and cottage industries. Residents in this area should expect to encounter the sights, sounds, smells, and activities typically associated with a working landscape.

Home occupation within the Residential Area should not be used to allow someone to establish an otherwise commercial use in a residential neighborhood. Some uses might be considered to be customarily carried on in a home, while others might be so unique in nature that they could not have as yet established any custom but nevertheless do not change the character of the residential area in which it is proposed.

Some uses should be excluded because they involve too much traffic in the way of customers, deliveries, or visitors. Others should be excluded because they involve too many employees, too much noise, late hours, or some other aspect offensive to residential uses. Home Occupations can be a legitimate means for Pittsfield residents to maintain their homes as places from which they can conduct their business without infringing on the rights of their neighbors to enjoy their homes, or conflict with the primarily residential character of the area.

The Home Occupation should be a discreet, inoffensive, and basically invisible business use of a residential property. A beauty shop with a stream of customers or a doctor's office with a stream of patients do not constitute ~~a~~ legitimate Home Occupations. All parking or service needs should be limited and confined to the property involved.

Commercial and industrial uses should only be allowed if they are designed to minimize their impact on the rural character of the area. Development that would constitute an undue adverse impact on the visual and natural character of the area is prohibited. Large-scale commerce is inappropriate. Likewise, “right-to-farm” ordinances, and other measures designed to protect and encourage agricultural uses should be included in any future land use ordinances. Larger industrial and retail uses would not be allowed in this area. All uses in this residential area must be of a size that can support on-site water and sewer while fitting generally within the landscape. Clustered housing with shared driveway access is a recommended development strategy to avoid fragmentation of landscapes and habitats, and to improve the provision of services to the area.

Goals and Policies in the Residential Area

Goals

1. Encourage agriculture of all varieties throughout Pittsfield.
2. Support new agricultural developments provided that they continue to maintain the rural character of the Town.

Policies

1. Maintenance of a working landscape is the primary goal for the Residential Area. Projects which adversely affect the rural setting and conflict with the existing working landscape should not be located in this area.

2. Agricultural and residential uses are to be the primary and dominant land uses in the Residential Area. Commercial or industrial projects in this area should be designed so as to not adversely affect the rural character of this area.

I. Wind Generation Facilities

New highly-efficient technologies are now available to harness wind power, making it a viable alternative to more traditional sources of power. While there are benefits in capturing renewable energy, the location, design, and access and maintenance road locations for wind generators can adversely interfere with scenic and historic resources. In Vermont, ridgelines are the favored sites for large-scale commercial generators due to prevailing wind patterns and topography. Locations between 2,000 and 3,500 feet in elevation are considered ideal for "on the grid" generation. For Pittsfield, this means that there are unlikely to be any sites that are available for commercial generation.

In spite of this, wind energy offers possibilities for on-site generation of electricity for home consumer use. Generally, these are considered accessory uses or structures, subordinate to primary uses such as residences or farms. On-site/off-grid generation facilities are not subject to state permitting, as is the case for commercial generators that are required to obtain approval from the Vermont Public Service Board (24 V.S.A. § 248). Local planning and land use regulation should consider the potential impacts associated with small-scale, private-use wind towers and provide guidelines for the development of these facilities in Pittsfield. Wind tower generators need to be high to capture the wind, which can raise issues of visual impact. Other considerations include noises emitted from the generator and possible effects on birds and other wildlife.

Goals

1. Design wind projects to protect the visual and natural sensitivity of the area in which they are located, including access roads.
2. Accommodate appropriate scale wind generation as part of a broad-based, decentralized energy approach.

J. Act 250 Requirements

All projects requiring an Act 250 permit shall conform to the following Guidelines. Conformance with these Guidelines is required for being in conformance with the Pittsfield Town Plan under Criterion 10 of Act 250. These Guidelines are in the nature of recommendations for all other projects.

Lot Layout – All Uses

- The amount of frontage and building position shall be varied from lot to lot to avoid a suburban pattern of repeated houses or other buildings situated at or near the middle of adjacent lots one after another.
- Lots shall be laid out to take advantage of and preserve desirable features, such as stone walls, hedgerows, fields, natural clearings, and land contours.

- Locating buildings at the top of ridgelines or at the brows of hills where land is open and sites would be highly visible from nearby public roads is strongly discouraged.
- Excavation for roads or buildings where excessive erosion will be likely is prohibited.
- Buildings and other construction shall be located so that that they will not have an undue adverse impact on natural or scenic features.
- In the case of multiple unit projects, buildings shall be clustered.
- On developments involving adjacent buildings or lots, road access points shall be shared.
- Light industrial and commercial uses shall be located so as not to be prominently visible or shall screened to minimize detrimental impacts on neighboring uses.
- Noisy, toxic, or noxious uses shall be located where they will not be detected from public roads or neighboring uses (especially housing), and shall take all reasonable means to screen or lessen any detrimental impacts of such uses. This provision does not apply to agricultural uses.

Construction in Pittsfield Village

- Proposed construction shall be of a size and scale consistent with that of other buildings in the Village Area.
- Traditional building massing, forms, and materials shall be used within the Village Area.
- Any development within the Village Districts may have an impact on the existing water supplies. Developers must prove that their development will not have any negative effects on public or private water supplies within this area.
- All noisy, toxic, or noxious uses shall be located where they will not be detected from public roads or neighboring uses, (especially housing), and/or take all reasonable means to screen or lessen any detrimental impacts of such uses.

Commercial Development along Route 100

- Development shall be located in clusters and set back from the highway for minimal visual impact.
- Large parking or delivery areas shall be located at the sides or rear of ~~such~~ commercial buildings, away from Route 100 and appropriately screened and landscaped. Where feasible, parking areas shall be shared between adjacent uses.
- A landscaped buffer (using native plants and trees) shall be part of any new construction adjacent to Route 100.
- Paved or impermeable areas shall be kept to a minimum.

XIII. RELATIONSHIP TO OTHER PLANS

Pittsfield is bounded by the towns of Chittenden, Rochester, Stockbridge, and Killington. The Town shares numerous activities and services with surrounding towns, including school services, rescue squad support, and mutual aid fire protection. All abutting towns have planning programs and planning commissions. All of these towns have town plans in effect or are currently in the process of re-adopting them: Chittenden (also seeking adoption and approval in 2015), Rochester (2013), Stockbridge (2010 plan expiring May 2015), and Killington (2010 plan expiring July 2015). Likewise, all but Chittenden have zoning ordinances in effect.

The neighboring town plans have been read in the context of the proposed Pittsfield Town Plan based upon the four towns' most recent and enforceable town plans. On the whole, the planning activities and priorities of all of Pittsfield's abutting towns are synchronized. All of the towns have an express interest in promoting development that is in keeping with the landscape while maintaining the rural character that so readily typifies the region at large. That said, the Stockbridge future land use areas allow for commercial and retail uses in their Business Enterprise District, which is immediately adjacent to the Pittsfield Town line and Pittsfield's predominately rural, agricultural Route 100 Corridor Area. This may be detrimental to growth in Pittsfield's Village Area, and could pose a potential conflict in creating sprawl development within a scenic area. In all other respects, though, there are no other conflicts that exist in either general philosophy or specific development proposals along town borders, as demonstrated below:

- Chittenden – The Town of Chittenden has an adopted Town Plan (2010) 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 Pittsfield Town Plan.

- Killington – The Town of Killington has a comparatively small boundary with Pittsfield that extends along Route 100. It is a predominantly rural residential area, similar to Pittsfield. As a general rule, Killington places a precedence on maintaining the rustic nature of the adjacent area near Pittsfield for low-intensity development. There is no present conflict between Killington's 2010 plan and this Plan.

- Rochester – The Town of Rochester shares Pittsfield's northeastern border, most of which is under the GMNF's jurisdiction. Remaining lands along Pittsfield's border are to be maintained for agricultural and residential purposes, in keeping with those of Pittsfield. There are no apparent areas of conflict between this Plan and Rochester's 2013 plan.

- Stockbridge – The Town of Stockbridge has an adopted Town Plan (2010) as well as zoning, subdivision and flood hazard regulations. Their Town Plan expires in 2015, and is currently under review for adoption and Regional Commission approval. The border shared by Pittsfield and Stockbridge is runs along the scenic Route 100 corridor. The pattern of development in this area is rural in nature; however, as mentioned above, is open for

commercial and retail uses immediately along the town line. This could bring growth of a size and use type that is inconsistent with the Pittsfield Town Plan.

Pittsfield is also a member of the Two Rivers-Ottauquechee Regional Commission (TRORC) along with its neighboring towns of Rochester and Stockbridge. TRORC's regional plan covers 30 towns, including Pittsfield. TRORC does, and will continue, its role in providing technical assistance to the Town and offering general guidance as relates to all facets of land use planning and development strategies in achieving mutually held goals.

Since the preparation of the Pittsfield Town Plan was done with the assistance of the Regional Commission, no conflicts between the two plans have arisen. In fact, the two plans have similar policy statements regarding the need for development that does not overburden services. In addition, no specific development goals in this Plan conflict with any regional goals. The Town will continue to consider any future substantive changes presented in the TRORC regional plan that may warrant Town Plan modifications in order to ensure alignment with regional plan's stated goals and policies.

With much of the Town being federally-owned forest, the Green Mountain National Forest (GMNF) is an area of mutual interest. Activities in the forest can have direct and significant impacts on the Town, and vice versa. Maintaining lines of communication and support between the Town and the Forest Service is imperative to ensure the compatibility of development with larger planning efforts for the whole of the forest ecosystem that the Town shares with the Forest Service.

Recommendations

1. To encourage continued communication and cooperation between Pittsfield and its neighboring towns.
2. To work with neighboring Towns and the region to encourage sustainable land use and environmental policies that benefits the citizens of Pittsfield.
3. To continue participation in the Two Rivers-Ottauquechee Regional Commission.
4. To exchange planning information and development data with neighboring communities as well as the Green Mountain National Forest's agency counterparts.

XIV. Implementation

A. Putting the Plan into Action

The character of Pittsfield, its people, and landscape have been created over the years through the individual and collective decisions and actions of its citizens and public officials. The efficiency, attractiveness, and well-being of the community is determined, in part, by the ability of the Town to plan for its needs and to find a mechanism to put planning goals into action.

Previous elements of this Plan have been centered on existing conditions, probable trends and policy development, which, when combined, represent a vision for the kind of town Pittsfield desires to be in the future. One thing is certain: the community will change. The opportunity for citizens and town officials to jointly direct this change consistent with their desires is ever-present, and requires utilization of a variety of mechanisms.

The following sections describe the tools and techniques that could be used to implement the Pittsfield Town Plan.

B. Adoption of the Plan

Adoption of the Pittsfield Town Plan by the Selectboard, in accordance with the procedures outlined in the Vermont Planning and Development Act (24 V.S.A., Chapter 117), is the first step in putting this Plan into action. Through its adoption, the Town accepts the principles and policies as set forth in this Plan in the public interest and as a guide for the future growth and development decisions affecting Pittsfield.

C. On-going Planning

Planning for change is a continual process for Pittsfield, and will require the involvement of the Planning Commission and the public to ensure that the goals and policies of the Plan are integrated into the decisions affecting land use, taxation, and public investments in Pittsfield.

The quality of a Town Plan is reflected in the amount of public involvement in its creation. Regular community meetings, held by the Planning Commission, that discuss important issues relevant to the Town plan will ensure that the document truly reflects the vision of the residents of Pittsfield.

The Pittsfield Town Plan is a dynamic document reflecting the community's visions and values. By statute (24 V.S.A., § 4387), the Plan must be revisited at least every five years to be kept relevant. The Planning Commission is responsible for the maintenance and amendment of the Plan. Over the span of five years following adoption of the Plan, the Planning Commission will need to evaluate the Plan in light of new conditions and needs. Re-adoption of an updated Plan will require notice to the townspeople and action by the Selectboard.

At any time following adoption of the Plan, the Selectboard may request the Regional Commission to approve the Plan or amendments to a plan. Before approving a plan, the Regional Commission shall find that the plan meets four basic tests [24 V.S.A., § 4350(b)], and generally meets the

statutorily required elements of a town plan. Approval of the Plan provides an improved legal standing for Pittsfield to influence and integrate its planning policies with State agency planning affecting land use. Further, it affords the Town an opportunity to maintain its village designation through the state's Department of Housing and Community Development, and subsequently be eligible for tax credits for growth and revitalization.

D. Implementation Tools

Vermont law enables Pittsfield to implement the adopted Pittsfield Town Plan in a variety of ways. Regulation of land use and development through rules adopted by the voters is one possible method. 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, and they may be either regulatory or non-regulatory in nature. They may include the following:

Table 11: Regulatory and Non-Regulatory Implementation Tools

Regulatory	Non-Regulatory
Zoning and Subdivision Bylaws	Designing a Capital Budget and Program
Strengthening of the Town Plan's language to lend clarity to Act 250 proceedings (e.g., use of direct language, such as the word "shall" in policy statements)	Establishing advisory committees (i.e., Conservation Commission, Energy Committee)
Official town mapping	Education and outreach on important issues
Town Highway Ordinances (such as Access/Curb Cut Permits, granted by the Selectboard)	Conservation activities and the purchase or acceptance of development rights
Flood Regulation and participation in the National Flood Insurance Program (NFIP)	Follow-up on recommendations for action in the Town Plan

Regulatory Implementation Tools

1. **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.

   Zoning generally involves partitioning the Town into districts or zones that have different sets of uses, densities, and other standards for development. Zoning districts must be reasonably consistent with the Town Plan. As an alternative to conventional methods, Pittsfield 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. A further form of zoning is form-based code, which, in general terms, allows towns to determine the overall look and feel of development as opposed to placing restrictions on use in given areas. It looks to the form the built environment takes as a guide to growth.

2. **Subdivision Regulations –** Pittsfield does not currently have subdivision regulations. These regulations, if adopted, would be administered by the Zoning Board of Adjustment. Such 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.

3. **Act 250 –** Since 1970, Vermont has had a statewide review system for major developments and subdivisions of land in place. Exactly what constitutes a "development" or "subdivision" is subject to a rather large and involved set of definitions. However, generally speaking, development includes any of the following: commercial and industrial projects on more than one acre of land; construction of 10 or more units of housing; subdivision of land into 6 or more lots; construction of a telecommunication tower over 20 feet in height; and development over 2,500 feet in elevation. Prior to any of these activities commencing, 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 Pittsfield, 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 Pittsfield 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 Pittsfield and to offer testimony, as appropriate.

4. **Flood Hazard Bylaws –** Under Vermont law (24 V.S.A., § 4412), the Town of Pittsfield may regulate the use of land in a defined flood hazard area adjacent to streams and ponds. These bylaws can be 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 Flood Resiliency and Natural Resources sections 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 Pittsfield unless the Town has in effect a Flood Hazard Bylaw which, at present, Pittsfield has.

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

   Pittsfield also has the ability to regulate private access to municipal roads through the issuance of "curb cut" permits to landowners through its Selectboard. "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.

Non-regulatory Implementation Tools

1. **Capital Budget and Program –** 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 2020). Collectively, these capital projects make clear when public facilities will be replaced 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 a town's capital budget [see 10 V.S.A., § 6086(a)(10)]. Accordingly, this mechanism would give the Town an indirect method of implementing its policies and priorities as set forth in the Town Plan.

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

2. **Coordination of Private Actions –** Citizens and private enterprises have a vested interest in the well-being of Pittsfield. The actions of the private sector, such as the construction of homes and businesses, land conservation, and the use of land for recreation and agriculture, should relate positively to the goals and policies as set forth in this Plan.

   It is in the interest of Pittsfield, 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 should be maintained with the following parties:

   - Green Mountain National Forest
   - Green Mountain Economic Development Corporation
   - Vermont Land Trust and the Nature Conservancy
   - Owners of significant properties of high resource and/or development value
   - Large employers within Pittsfield

3. **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.

4. **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 thirty 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 working toward conservation goals locally. 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.

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

E. 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: Plan Implementation Matrix).

[1] Vermont Division for Historic Preservation, "The Historic Architecture of Rutland County." 1988.
[2] Sources for this section include "History of Rutland County," 1886, and "Vermont Gazeteer" by the Rev. W.R. Blossom, 1876.
[3] Vermont Division for Historic Preservation, "The Historic Architecture of Rutland County." 1988.
[4] Home Mortgage Calculator. http://www.housingdata.org/calculator/index.php. Vermont Housing Finance Agency. 2015.
[5] Housing Wage Calculator. http://nlihc.org/library/wagecalc. National Low Income Housing Coalition. 2015.
[6] Town and Unified Union School Districts Tuitioning One or more Grades. http://education.vermont.gov/documents/EDU-Town_and_Unified_School_Districts_Tuitioning_One_or_More_Grades.pdf. Vermont Department of Education. Sept. 18, 2013.
[7] Cannon, Susanne E. et al. "School Vouchers and Home Prices: Premiums in School Districts Lacking Public Schools." http://mediad.publicbroadcasting.net/p/vpr/files/201406/vpr-school-vouchers-home-prices.pdf. June 2014.
[8] Bright Futures Childcare Information System. http://www.brightfutures.dcf.state.vt.us/. Vermont Department for Children and Families. 2015.
[9] Alan K. Betts, "Climate Change in Vermont." June 2011 (edited 10/29/2011). http://www.anr.state.vt.us/anr/climatechange/Pubs/VTCCAdaptClimateChangeVTBetts.pdf
[10] *Id.* at p. 9
[11] *Id.*
[12] VT ANR Climate Change Adaptation Framework, pages ii-iv, 14-16. Presentation by Dr. Cameron Wake.
[13] Vermont Forests and Woodlands. Vermont Fish and Wildlife Service. http://www.vtfishandwildlife.com/books/Wetland,Woodland,Wildland/___76_to_386_Part_4_A_Guide_to_the_Natural_Communities_of_Vermont/_82_to_236_Upland_Natural_Communities/_84_to_186_Upland_Forests_and_Woodlands/_84_to_103_Upland_Forests_and_Woodlands.pdf
[14] *Id.*
[15] Vermont Green Infrastructure Initiative, Watershed Management Division of the VT Department of Environmental Conservation. Low Impact Development Fact Sheet; LID Principle #. Reduce Impervious Surfaces. http://www.anr.state.vt.us/dec/waterq/stormwater/docs/sw_gi_1.7_reduce_impervious_surfaces.pdf
[16] *Id.*
[17] 10 V.S.A. § 902(5)
[18] Vermont Division for Historic Preservation, "The Historic Architecture of Rutland County." 1988.

Appendix A: Plan Implementation Matrix

	Action Item	Responsible Party	Timeframe
HOUSING	New housing growth to areas with public infrastructure and services shall be planned in a manner that reinforces Pittsfield's historic settlement pattern.	ZBA	On-going
	The development of multi-family housing, special needs group homes, and elderly housing shall be encouraged in the designated village center.	ZBA	4-5 years
	Innovative energy efficiency standards and practices in housing rehabilitation and new developments should be reinforced and encouraged.	PC, SB	On-going
EDUCATION & CHILDCARE SERVICES	The Town is encouraged to work with school authorities where Pittsfield students are tuitioned to maintain safe transit opportunities.	School Board	On-going
	The Town shall ensure that all of the needs of all of the Town's children are incorporated into School Board budgetary planning efforts to advance free and appropriate education.	School Board	On-going
UTILITIES & FACILITIES	The Planning Commission, with assistance from the Selectboard, town should consider the development of a Capital Budget and Program for the purposes of planning for future municipal investments in utilities and facilities that is consistent with this Town Plan.	PC, SB	2-3 years
	The Town shall continue to participate in the WRVSWA, and support its evolving programs.	SB	On-going
	The Town should support continued efforts to expand broadband and cellular service and access to the Town when such growth does not place an undue adverse impact on the rural character of the community.	SB	On-going
HEALTH & EMERGENCY SERVICES	The Town should consider alternative providers of medical transport in an effort to reduce costs and improve response time and quality of care.	First Response, SB	On-going
	The Selectboard shall review and should update, where necessary, the town Local Emergency Operations Plan on a yearly basis.	SB, Emergency Manager	Yearly
	The Town should consider earning Red Cross designation for its three shelters.	SB	1-2 years
FLOOD RESILIENCE	Pittsfield should work with the Regional Planning Commission to strengthen their Flood Hazard Regulation Bylaws in order to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments from inundation and erosion.	PC, RPC	As needed
	Pittsfield should work with VTrans and the Regional Planning Commission on advocating for and improving the flood capabilities of state or Town-owned transportation infrastructure.	SB, RPC, VTrans, Road Commissioner	On-going
	Pittsfield should continue working to develop mitigation plans, and emergency preparedness and recovery procedures from flooding.	SB, Emergency Manager	On-going

Appendix A: Plan Implementation Matrix

	Action Item	Responsible Party	Timeframe
	Existing homes and businesses at serious risk of flood damage in Pittsfield should be identified and prioritized by the Pittsfield Zoning Board in concert with the ANR River Management Section and the Regional Planning Commission for mitigation actions such as elevation/relocation or purchase and demolition.	ZBA, ANR, RPC	On-going
	Areas not designated in either FEMA's maps or in VT ANR's maps, but which are flooded during a weather event, should be recorded by the Pittsfield Zoning Board and may be added to local flood regulations.	Zoning Administrator, ZBA	On-going
	Watershed-level planning should be performed by the Town with assistance from the Regional Commission to evaluate natural and constructed flood storage options upstream of existing areas of concentrated development that are at risk of flooding.	PC, SB, RPC	2-3 years
	Pittsfield shall work with ANR, the Regional Planning Commission, and landowners to lessen flood risk by restoring natural channel functions through berm or dam removal or intentional lowering of streambanks.	SB, RPC, ANR	5 years
	Pittsfield shall work with the Regional Planning Commission to understand the impact stormwater runoff has on the Town, and then work to address impacts from impervious surfaces through increased retention and infiltration.	SB, RPC	1-3 years
TRANSPORTATION	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.	SB, Road Commissioner, RPC	On-going
	Continue to routinely update inventories to roads, bridges, and culverts to ensure appropriate safety and usability of all roadways and supporting infrastructure, along with short- and long-range planning for necessary replacements and enhancements.	Road Commissioner	On-going
	Encourage participation in the Regional Transportation Advisory Commission as well as the TRORC Road Foreman's meeting program.	Road Commissioner	On-going
ENERGY	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 local residents and businesses.	PC	2-3 years
	The Town should consider municipal or community-based renewable energy generation, to include municipal or district biomass heating systems, and the installation of individual or group net metered generation facilities on town buildings and property to serve town facilities. Sources of funding for municipal power generation could include third-party financing, municipal funds, bonds, grants, and available government incentive programs.	SB	5 years

Appendix A: Plan Implementation Matrix

	Action Item	Responsible Party	Timeframe
	The Planning Commission should identify areas in town that are appropriate for large scale renewable energy production, such as solar.	PC, SB	5 years
	The Selectboard should formally designate an Energy Committee as a Town committee so that they may develop an Energy Action Plan as a supplement to the municipal plan.	SB	2-3 years
	The Selectboard should authorize a Pittsfield Energy Committee to track municipal energy use and costs (for example: through the EPA's free Energy Star® Portfolio Manager program) and develop an overall energy budget to manage the town's energy consumption, which may also include the development of local generating capacity.	SB	2-3 years
	The Town should implement energy efficiency measures recommended by an authorized Pittsfield Energy Committee for existing and future facilities.	SB, Energy Committee	3-5 years
	The Town, with help from an authorized Energy Committee, should develop municipal procurement and purchasing policies that emphasize products that are energy efficient (e.g., Energy Star® rated).	SB, Energy Committee	5 years
	The Town should continue to develop facility maintenance and operation policies that maximize energy efficiency while maintaining comfort levels for employees and visitors.	SB	On-going
	The Selectboard should discuss PACE at a future meeting and decide whether the program should be placed on the ballot for Town Meeting.	SB	1-3 years
	The Town should continue to explore the potential for public transit opportunities.	SB	On-going
ECONOMIC DEVELOPMENT	Pittsfield should consider the creation of a local economic development committee that would encourage the growth of appropriately scaled businesses.	SB	3-5 years
	Encourage the development of a local farmer's market.	SB	On-going
	The Town should conduct a simple inventory of local businesses to determine what goods and services are available in town, and where market gaps exist that may be filled by new business enterprises.	PC	1-2 years
	Encourage and support the development of information technology and communication infrastructure that is necessary for economic growth and vitality.	SB	On-going
	Support efforts to expand public transit opportunities within the Village Area.	SB	On-going
NATURAL, SCENIC & HISTORIC RESOURCES	The Town should conduct an inventory of wetlands to determine where, if any, wetlands that have not been mapped by the State of Vermont are located.	PC	1-2 years
	The Zoning Board of Adjustment should consider limiting new development within the floodplain to include only recreational and agricultural uses.	ZBA	On-going

Appendix A: Plan Implementation Matrix

	Action Item	Responsible Party	Timeframe
	1. Support the White River Partnership water quality monitoring and watershed planning efforts for the Tweed and White Rivers.	SB, PC	On-going
	2. Investigate maintaining and improving public access to the river for recreational use.	PC	On-going
	Conduct a mapping study of groundwater resources in Pittsfield.	PC, RPC	On-going
	1. Encourage owners of necessary habitat for threatened species to contact the State for assistance in developing a management plan for these sites.	PC	1-3 years
	2. Identify wildlife corridors in Pittsfield.	PC	1-3 years
	The Town should take an active role in the next revision of the Green Mountain National Forest Plan revision.	SB	As needed
	1. Town employees, contractors, businesses, and residents should become familiar with the best management practices to prevent the accidental spread of invasives.	PC, SB, Road Commissioner	1-2 years
	The Town should time roadside mowing to minimize and reduce the spread of invasive species.	Road Commissioner	On-going
	1. The Selectboard should consider creating a Conservation Commission.	SB	1-2 years
	The Selectboard should consider the establishment of a conservation fund, to be administered by a Conservation Commission, for the purposes of conserving natural or culturally significant areas in Pittsfield.	SB	1-2 years
RELATIONSHIP TO OTHER PLANS	1. To encourage continued communication and cooperation between Pittsfield and its neighboring towns.	SB, PC	On-going
	2. To work with neighboring Towns and the region to encourage sustainable land use and environmental policies that benefits the citizens of Pittsfield.	SB, PC	On-going
	3. To continue participation in the Two Rivers-Ottauquechee Regional Commission.	SB, PC	On-going
	4. To exchange planning information and development data with neighboring communities as well as the Green Mountain National Forest's agency counterparts.	SB, PC	On-going

Current Land Use Map

Pittsfield, Vermont

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy
- Green Mountain National Forest

1:37,691

1 inch = 3,141 feet

0 0.5 1

Miles

Adopted: 8/18/2015

Map 1 of 5

Two Rivers-Ottauquechee REGIONAL COMMISSION

trorc.org

Future Land Use Map

Pittsfield, Vermont

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy

Future Land Use Areas

- Village Center Area
- Route 100 Corridor Area
- Flood Hazard Area
- Residential Area
- Green Mountain National Forest
- Village Designation Boundary

1:15,162

1 inch = 1,263 feet

0 0.5 1

Miles

Adopted: 8/18/2015

Map 2 of 5

Two Rivers-Ottauquechee REGIONAL COMMISSION
trorc.org

Natural Resources Map
Pittsfield, Vermont

1:37,636

1 inch = 3,136 feet

0 0.5 1

Miles

Adopted: 8/18/2015

Map 3 of 5

Deer Wintering Areas

Conserved or Public Lands

Vermont State Wetlands Inventory

Prime Agricultural Soils

Local

Prime

Statewide

Flood Zone/Floodway

A,

AE,

AE, FLOODWAY

surface water

Two Rivers-Ottauquechee REGIONAL COMMISSION

trorc.org

Transportation Map

Pittsfield, Vermont

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy

1:37,636

1 inch = 3,136 feet

0 0.5 1

Miles

Adopted : 8/18/2015

Map 4 of 5

Two Rivers-Ottauquechee REGIONAL COMMISSION
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Volunteer Fire Department
Town Hall
Town Green
Town Park
Town Office
West Branch Tweed River
Tweed River
Future Riverside Access Area
Pittsfield Town Garage
540 270 0 540 Feet

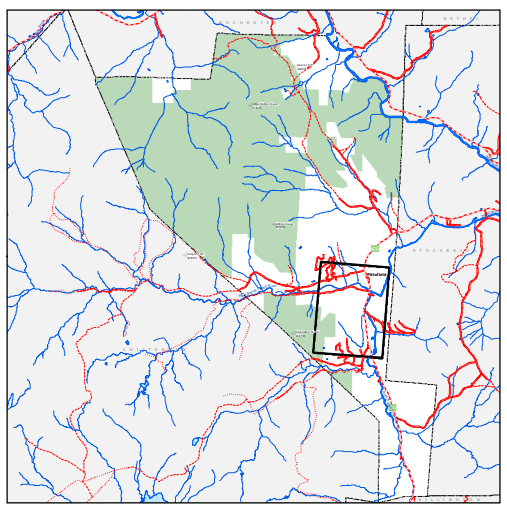
Utilities, Facilities and Education Map

Pittsfield, Vermont

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy

Adopted: 8/18/2015

Map 5 of 5



Two Rivers-Ottauquechee REGIONAL COMMISSION
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