

# **TOWN OF RICHFORD MUNICIPAL PLAN 2017**



**Amended by the Richford Selectboard May 8<sup>th</sup>, 2024**

**Prepared by the Richford Planning Commission  
With assistance from the Northwest Regional Planning Commission**

# Contents

Chapter 1: Introduction.....	5
Introduction.....	5
Why Plan?.....	5
How are Town Plans Used? .....	5
What is Required in a Plan?.....	6
How Does the Planning Process Work?.....	6
Authority.....	6
Role of the Richford Planning Commission .....	7
The Structure of the Richford Town Plan .....	7
Visions.....	7
Plan Implementation.....	9
PLANNING PROCESS GOALS AND POLICIES.....	12
CHAPTER 2: THE RICHFORD COMMUNITY .....	13
Past and Present Population .....	13
Age Distribution/Growth by Group .....	14
Special Populations.....	14
Household & Household Types .....	15
Education Level.....	15
Income .....	16
Employment .....	16
CHAPTER 3: HISTORIC FEATURES .....	18
Archeological Sites.....	18
The Historical District .....	18
Cemeteries.....	18
HISTORIC AND ARCHEOLOGICAL RESOURCES GOALS AND POLICIES.....	18
CHAPTER 4: HOUSING .....	19
Overview.....	19
Housing Needs.....	19
Evaluation of Housing Supply .....	19
Affordable Housing.....	20
Special Needs Housing.....	22
Housing Assistance Agencies.....	23

Residential Development Pattern .....	24
Conclusions.....	24
HOUSING GOALS AND POLICIES .....	25
CHAPTER 5: PUBLIC UTILITIES.....	26
Overview.....	26
Water Services.....	26
Wastewater Treatment .....	26
Solid Waste.....	27
Telecommunication and Information Services.....	27
PUBLIC UTILITIES GOALS AND POLICIES .....	28
CHAPTER 6: PUBLIC FACILITIES AND SERVICES.....	29
Overview.....	29
Public Facilities .....	29
Police Services .....	30
Fire Protection .....	30
Ambulance Services.....	31
Health Services .....	31
Education.....	31
Childcare.....	32
Recreation .....	32
Civic Groups and Organizations.....	33
PUBLIC FACILITIES AND SERVICES GOALS AND POLICIES .....	34
CHAPTER 7: ENERGY PLAN .....	36
Enhanced Energy Plan.....	36
Energy Resources, Needs, Scarcities, Costs and Problems .....	36
Thermal Energy.....	36
Electricity Use .....	37
Transportation .....	38
Generation.....	38
Targets for Use and Generation.....	38
Mapping Energy Resources and Constraints.....	40
Mapping Methodology .....	41
Solar and Wind.....	41

Hydro and Biomass .....	41
Conclusion .....	41
ENERGY PLAN GOALS AND POLICIES .....	42
CHAPTER 8: TRANSPORTATION .....	44
Roads .....	44
Parking .....	44
Public Transit .....	45
Railroad .....	45
Bicycle and Pedestrian Travel .....	45
TRANSPORTATION GOALS AND POLICIES .....	45
CHAPTER 9: ECONOMY .....	46
Overview .....	46
How Economics Relates to Other Chapters .....	46
Developing a Strong and Diverse Economy .....	46
Earning a Livable Wage .....	47
Building and Maintaining Status as an Economic and Commercial Center .....	47
Maintaining High Environmental Standards .....	48
Programs and Organizations .....	48
Conclusions .....	49
ECONOMIC GOALS AND POLICIES .....	49
CHAPTER 10: NATURAL RESOURCES .....	50
Overview .....	50
Climate and Air Quality .....	50
Geology and Topography .....	50
Soils .....	51
Water Resources .....	51
Critical Areas .....	52
NATURAL RESOURCES GOALS AND POLICIES .....	54
CHAPTER 11: LAND USE PLAN .....	56
Overview .....	56
Land Use History .....	56
Richford Land Use Districts .....	56
Residential Use .....	58

Commercial and Industrial Use .....	58
Agriculture and Forestry.....	59
Compatibility with Neighboring Towns.....	59
Conclusions.....	60
LAND USE PLAN GOALS AND POLICIES.....	60
APPENDIX A: INVENTORY OF STUDIES AND PLANS.....	62
APPENDIX B: LIST OF CIVIC ORGANIZATIONS.....	65
APPENDIX C: TOWN PLAN MAPS.....	67
Zoning/Future Land Use Map - Town.....	67
Village Center Designation Map.....	68
Facilities and Services Map - Town.....	69
Facilities and Services Map – Village Area.....	70
Transportation System Map 1 - Town.....	71
Transportation System Map 2 - Village Area.....	72
Septic Suitability Map.....	73
Natural Areas Map.....	74
Critical Areas Map .....	75
APPENDIX D: ENHANCED ENERGY PLANNING MAPS.....	76

# Chapter 1: Introduction

## Introduction

Town plans are a place where communities have an opportunity to reflect on the past accomplishments, take stock in where they are, and set a course for the future. Richford, perhaps more than any town in the area, is in a rapid state of change. Over the past few years the Town and Village have merged, the Richford 2010 Task Force completed *Richford ... still a real Vermont town*, a new Emergency Services building was constructed, the high school was renovated, a new water treatment plant was constructed, the wastewater treatment plant was upgraded, the Missisquoi Valley Rail Trail was built, and all of the Sweat-Comings buildings were purchased and most have been demolished or rebuilt. Over the next few years, as a result of Richford 2010 and other efforts, the town has many bold initiatives planned to pump life back into the economy and community. This plan is being written to chart that course and establish the means of getting there.

Richford has been involved in town planning since its establishment over two centuries ago. Charting streets, establishing schools, and building water and sewer lines all needed town planning, even if the plans were never written down. Formal modern planning began in Richford in the 1980's, with the first Town Plan adopted in 1989. The Richford Town Plan, revised in 2001, incorporated the Old Village Plan with the Town Plan. The Richford Town Plan 2006 reflected all of the changes to that point and captured the goals and visions of the residents of the Town of Richford. This Richford Town Plan 2017 is an update to the 2012 Plan.

The remainder of the introduction explains why town plans are written, how plans are used and developed, and the role of the Planning Commission. The introduction concludes with the visions for the future of Richford.

## Why Plan?

The primary purpose of any plan is to be a guide for the achievement of goals. In our personal lives this could entail financial planning, retirement planning, or planning for next month's vacation. Town plans are no different. A town plan is a community statement describing where you came from, where you are now, and where you want to go in the future.

Vermont municipalities are not required to plan, but most do – to protect community interest, to retain local control, to promote desired forms of growth and development, to target public investment, to protect scarce public resources, and build and sustain a sense of community.

## How are Town Plans Used?

There is a range of ways in which a town plan can be used. The Plan can be used to catalogue what is known about the town. This collection of information could serve to familiarize residents, potential residents, and development interests about the Town and its resources. Good information is essential to wise decision making in town planning.

The plan may also be used to evaluate development proposals for conformance with the town's goals and policies. Determination of a specific project's conformance, or otherwise, with the town plan is one method of participating in the Act 250 process.

Towns that have adopted plans are eligible for certain State planning grants. In many cases, grants from private organizations require a town plan to be adopted as well. Grants can be used for many projects including updating zoning bylaws, conducting feasibility studies for town projects, or purchasing development rights to a parcel of land.

The Richford Town Plan serves as the legal basis for land use regulations and capital budget programs. The town plan, in general, states community goals and charts the course, while zoning and capital budgets are vehicles to get there.

### What is Required in a Plan?

Under current law, a municipality must address twelve (12) elements in its plan, which are the following:

- A statement of objectives, policies, and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment;
- A land use plan;
- A transportation plan;
- A utility and facility plan;
- A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources;
- An educational facilities plan;
- A recommended program for the implementation of the objectives of the development plan;
- A statement indicating how the plan relates to development trends and plans for adjacent municipalities, areas and the region developed under this title;
- An energy plan;
- A housing element that shall include a recommended program for addressing low and moderate-income persons' housing needs;
- An economic development element that describes present economic conditions and the location, type, and scale of desired economic development; and
- A flood resilience plan;

### How Does the Planning Process Work?

A town plan is arrived at by: identifying community issues and needs; collecting and analyzing background information about the town; and combining them into a vision (statement) of how the community should develop. Goals and policies are formulated to address specific elements such as land use, housing, or education.

The need for involvement of town residents in the planning process is essential. While it is the responsibility of the Planning Commission to develop the plan, citizens and citizen committees can have an active role in gathering information and formulating plan policies for guiding development. A better plan is the result of a group effort. Without the participation of residents, the balancing of needs, values, and resources can be difficult to achieve.

Finally, planning is a continuous process, and plans can be amended to meet new challenges or situations. The Plan must be updated every eight years or it expires. This provides opportunity for citizen involvement, and it acts as a review of the effectiveness of the Plan and its policies.

The update of the 2017 Town Plan encouraged public input through a variety of methods. First, preparation of the plan was conducted in open, posted meetings. Additionally, much of the information for the revision was based on other public forums. Finally, the Planning Commission met statutory requirements by holding a public hearing to solicit comment on the final draft version before submitting the Plan to the Selectboard for approval.

### Authority

The Town of Richford is authorized to prepare and adopt a Municipal Plan via Chapter 117, Title 24 of the VSA (Vermont Municipal and Regional Planning and Development Act). Section 4382 of the Act dictates what needs

to be included in a plan. The intent of the law is to encourage a municipality to “engage in a continuing planning process that will further several stated goals.” The Act further states that municipal plans shall be re-examined, updated, and re-adopted every eight years. This process should be ongoing, whereby the Plan is continually reassessed and revised to meet the changing needs of the community. Consequently, there will be future opportunities to review and amend the Plan. Residents, community groups, and anyone with an interest in the Town are encouraged to provide input into this ever-continuing process to the Richford Planning Commission.

### Role of the Richford Planning Commission

The Planning Commission is empowered to formulate goals and objectives toward plan development. The Commission is responsible for the review and revision of the Town Plan and to propose amendments to the zoning bylaws and regulations in an effort to implement the plan.

The role of the Commission is ongoing. Amendments to the plan may, from time to time, be necessary and the Commission has responsibility for this task.

### The Structure of the Richford Town Plan

The Richford Town Plan is divided into seven chapters that address both the required elements in statute and other key areas of concern. Each subject is then addressed in detail including past conditions, current status, and future needs.

Based on the findings in the discussion, one or more goals are then developed for the subject. **Goals** can be defined as “the desired future condition” although some may not be attainable for many years. For example, the goal for housing is “to ensure that Richford has an adequate supply of safe, healthy, attractive, and affordable housing which satisfies the day to day living requirements of Richford’s residents and visitors.”

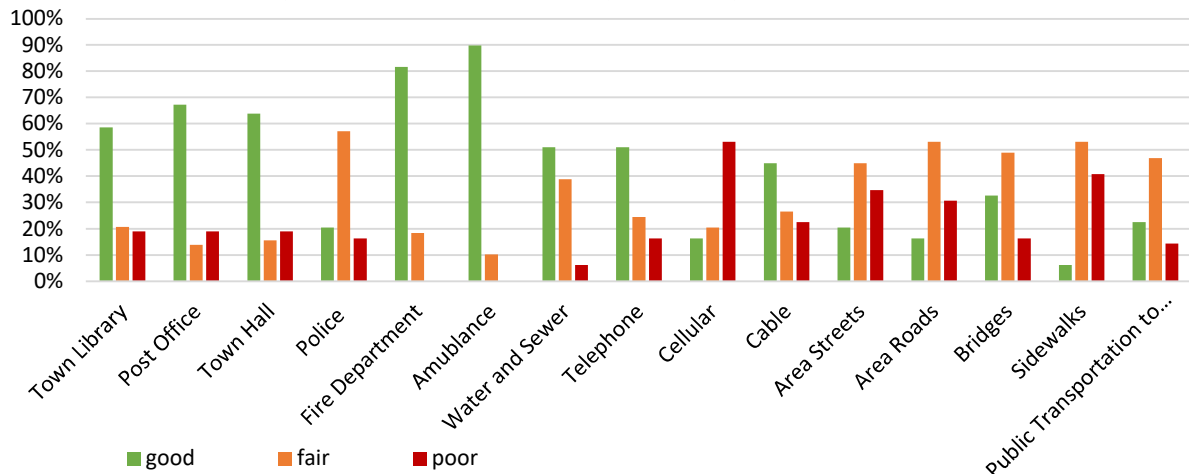
**Policies** are those features that describe how to attain the goals, are a guide for homeowners and developers, and a means for the Planning Commission to evaluate projects. For example, “to fully support the efforts of the Housing Code Enforcement Officer, Fire Chief, and State Fire Marshall in their enforcement of the Minimum Housing Codes to improve the quality of the rental units in the village district.

### Visions

The desired future of Richford, as defined by residents of the community through numerous public outreach sessions, is outlined in this plan. Most recently the Richford Town Plan Survey was distributed in March of 2017; the results can be seen below.



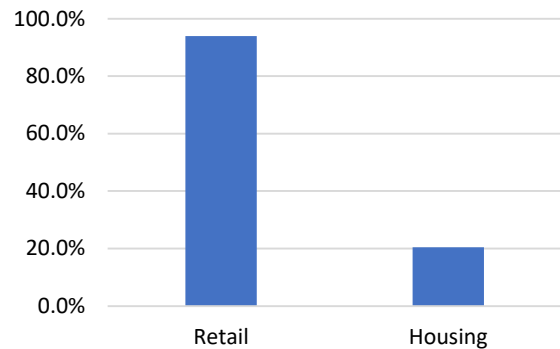
Figure #1.1 Town Survey - Rating of Services



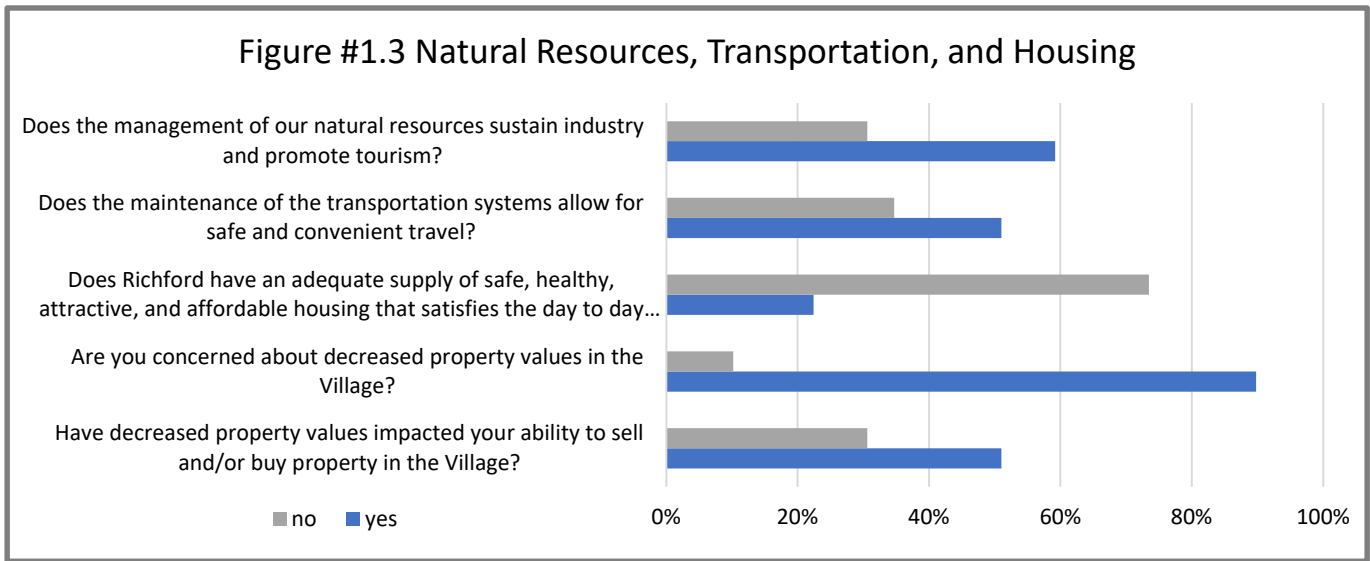
In the future, Richford:

- Is a responsive community of promise, which encourages and rewards a balance of traditional ways and new ideas;
- Has a vibrant, attractive downtown;
- Maintains a steady population and balance of generations, with a range of good housing options;
- Has a proactive community well-being program, which includes recreation, culture, and wellness;
- Is a regional center for lifelong learning;
- Is a respectful community;
- Contains an environment which will protect the health, safety, and general well-being of the Town and its citizens;
- Has eliminated blighted influences and environmental deficiencies, which detract from the functional unity, aesthetic appearance, and economic vitality of the Town, and conditions have been established, which will prevent the recurrence of such problems;
- Has improved the living environment for citizens by providing adequate and affordable community facilities;
- Provides a safe and efficient transportation system in and around town; and

Figure #1.2 The Village Should Have More....



- Provides for physical and economic growth in the town through controlled development.



Development and town planning are not idle in Richford. A great many projects have been completed in the Designated Village Center and more are planned for the future. Over the past five years, for example, blighted buildings have been redeveloped with new commercial and housing (both affordable and senior) development. The Town is now laying the foundation for a revival in the Designated Village Center, although a great deal of work has yet to be done. Table #1.1 discusses actions the Town wants to see happen and strategies to achieve those goals.

### Plan Implementation

As required by statute, a municipal plan must have a plan for implementation. The following is a list of projects that Richford hopes to start over the next 8 years to implement the goals and policies outlined in this plan.

#### PROJECT 1

**Project:** Administer existing codes and ordinances to improve the quality of rental units in the town.  
**Responsible Party:** Selectboard & Planning Commission  
**Timeline:** 1-3 Years  
**Explanation:** Richford has a large inventory of rental units. Many of these units are empty or substandard. Richford will administer existing codes and ordinances to improve the quality of all rental units and seek ways to improve the existing codes and ordinances to ensure better quality rental units in the future. Richford shall also develop ways to preserve single family homes in the Village Mixed Use District and Village Residential District.  
**Status:** Outstanding

#### PROJECT 2

**Project:** Maintain the historic character of the village.  
**Responsible Party:** Selectboard & Planning Commission  
**Timeline:** 3-5 Years  
**Explanation:** The state designated village center is a key gathering place for the community. This area should be expanded to include more of the historic village center to allow the Town and additional private property owners to utilize state grants for the preservation of historic properties. Richford shall work with the Vermont

Division of Historic Preservation to investigate the creation of a Design Control District and Design Review Board to enact controls on development in the state designated village center.

**Status:** Outstanding

### PROJECT 3

**Project:** Update and revise the Richford Zoning Bylaw.

**Responsible Party:** Selectboard & Planning Commission

**Timeline:** 3-5 Years

**Explanation:** Zoning bylaws help Richford direct growth and construction in a way that preserves historic character and optimizes the use of land. Future revisions to the Richford Zoning Bylaw should ensure that the bylaws meet the intent of the Town Plan and support housing for the elderly, a particularly important point since Richford has an aging population and the community's desire to ensure that the elderly have safe, reliable housing. Future bylaw revisions may also want to develop ways to preserve commercial uses on the first floor of buildings within the Village Mixed Use District.

**Status:** Ongoing

### PROJECT 4

**Project:** Determine ways that Richford can actively support local businesses.

**Responsible Party:** Selectboard

**Timeline:** 1-3 Years

**Explanation:** Richford would like to determine ways to provide support to new and existing businesses that develop in accordance with the land use plan and provide high-wage jobs. Strategies that could be used include tax stabilization and assistance in seeking grant funding.

**Status:** Ongoing

### PROJECT 5

**Project:** Construct a visitor's center to welcome families and provide local information.

**Responsible Party:** Selectboard

**Timeline:** 1-3 Years

**Explanation:** The visitor's center would advertise town businesses, services, events, and more including golf courses, farm stands, sugaring operations, etc. Richford shall work with key stakeholders to find an appropriate location and funding for construction.

**Status:** This is being studied through the Area-Wide Brownfields Study and the NFCT Trail Town initiative.

### PROJECT 6

**Project:** Create a capital budget to plan for future municipal projects and create a vibrant commercial downtown.

**Responsible Party:** Selectboard

**Timeline:** 1-3 Years

**Explanation:** Richford is in need of several large capital improvements in the future including streetscape and sidewalk repairs and maintenance of water and wastewater systems. The Town should properly plan for these large capital expenses.

**Status:** Outstanding

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**Sub-Project A:** Update the Town's water and wastewater system.

**Explanation:** The Town's water and wastewater systems are in need of maintenance and repair.

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**Sub-Project B:** Renew blighted properties.

**Explanation:** There are many properties, particularly in the village, that are blighted and in need of renewal. The Town should begin to develop strategies to renew these properties. See the Area-Wide Brownfield Study for further explanation. The streetscape in the village

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**Sub-Project C:** Repair sidewalks, extend the Missisquoi Valley Rail Trail (MVRT) through the village to Canada, and increase bicycle facilities throughout town.

**Explanation:** Some sidewalks in Richford are in disrepair. Conduct a sidewalk inventory and plan to understand future capital costs. Apply for state bike and pedestrian project funding, including the Safe Routes to School program, to plan and construct sidewalk. Work with the MVRT association, local land owners, and the Richford Economic Advancement Corporation (REAC) to extend the MVRT through the riverfront park. Install bike lanes and bike racks in the village. Work with Local Motion to find funding opportunities for bike lanes, racks, and development of bike repair shops.

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**Sub-Project D:** Create a formal bus shelter, repair streetscape, improve municipal parking lots, and support the expansion of private parking for residential use.

**Explanation:** Work with the Green Mountain Transit Authority (GMTA) to incorporate bus shelter facilities in Richford, particularly in the village, and assess the need for additional bus routes. Conduct a parking assessment to look at the current and future parking needs in Richford.

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**Sub-Project E:** Install wayfinding signs, lighting, and landscaping.

**Explanation:** Visitors are unaware of what Richford has to offer because it lacks signage. The Town should work to install local signs to direct visitors to points of interest and services in Richford. The Town should also explore ways to make the “public space” in the village more inviting to visitors through the installation of lighting and landscaping.

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**Sub-Project F:** Develop land along Missisquoi River for recreational use.

**Explanation:** An 8-acre parcel of town land exists along the river which can be used as a town park. Explore funding opportunities through state and federal grant programs.

## PROJECT 7

**Project:** Increase the availability of broadband services and U.S. cellular service.

**Responsible Party:** Selectboard

**Timeline:** 1-3 Years

**Explanation:** Areas of Richford are still without broadband services and US cellular service. Richford shall work with Comcast, Fairpoint, and cell service providers to gain access to increase residents access to this necessary infrastructure.

**Status:** Outstanding

## PROJECT 8

**Project:** Work on flood resiliency issues.

**Responsible Party:** Planning Commission

**Timeline:** 1-3 Years

**Explanation:** As extreme weather events become more increasing, Richford should work to ensure that flooding does not threaten the citizens and public infrastructure. Richford shall apply for grants from FEMA and the state to complete project that mitigate the potential effects of flooding.

**Status:** Richford is working on a FEMA Hazard Mitigation Plan which will increase the Town's ability to access funding for preventative projects and post-disaster repairs.

#### **PROJECT 9**

**Project:** Investigate reestablishing a Municipal Police Department.

**Responsible Party:** Selectboard

**Timeline:** 5-8 Years

**Explanation:** The Richford Police Department was disbanded several years ago. Police services currently come from the Franklin County Sheriff's Department. Richford should conduct a financial feasibility analysis for reestablishing a municipal police department and/or working with other communities to establish a police department that could provide better service to Richford.

**Status:** Outstanding

#### **PROJECT 10**

**Project:** Implement Enhanced Energy Plan

**Responsible Party:** Selectboard

**Timeline:** 5-8 Years

**Explanation:** Richford had completed an enhanced energy plan per 24 V.S.A. 4352 (Chapter 7). The intent of the plan is to have Richford plan to do its part in achieving ambitious regional and state energy planning goals. Richford will implement the specific projects identified in Chapter 7 to further the goals of Richford's enhanced energy planning.

**Status:** Outstanding

### PLANNING PROCESS GOALS AND POLICIES

**GOAL: THAT RICHFORD HAS A DOCUMENT THAT REPRESENTS THE COLLECTIVE VISION OF THE TOWN OF RICHFORD FOR THE FUTURE.**

**POLICIES:**

- Encourage citizen involvement at all levels of the planning process.
- Ensure that decisions having local impacts are made at the most local level possible and with local input.
- Represent and advocate local interests as time and resources permit, through participation in regional, state, and federal planning, legislative efforts, and/or regulatory proceedings that may affect the Town of Richford and the interest of its residents.
- Participate as a statutory party in state Act 250 proceedings as appropriate.

## CHAPTER 2: THE RICHFORD COMMUNITY

The purpose of this section is to understand the mix of individuals that make up the community as it exists today. Many of these social and economic indicators will be discussed in greater detail in other chapters.

The Town of Richford is located in the northwestern part of the State of Vermont in Franklin County and is bordered by five towns: Jay to the east; Westfield to the southeast; Montgomery to the south; Enosburgh to the southwest; Berkshire to the west, and Canada to the north.

### Past and Present Population

In the year 1800, shortly after being settled, Richford had 113 persons. Figure #2.1 shows how the population for Richford has changed since that year. The Town experienced steady growth until the early twentieth century. The population peaked in 1910 at 2,907 persons and then ebbed and flowed with the changing fortunes of the town - dropping through the 1920's and 1930's - rising slightly during the war years- and then dropping again thereafter to as low as 2,116 in 1970. From 1960 to 2015, the population fluctuated up and down, landing at 2,287 persons in 2015.

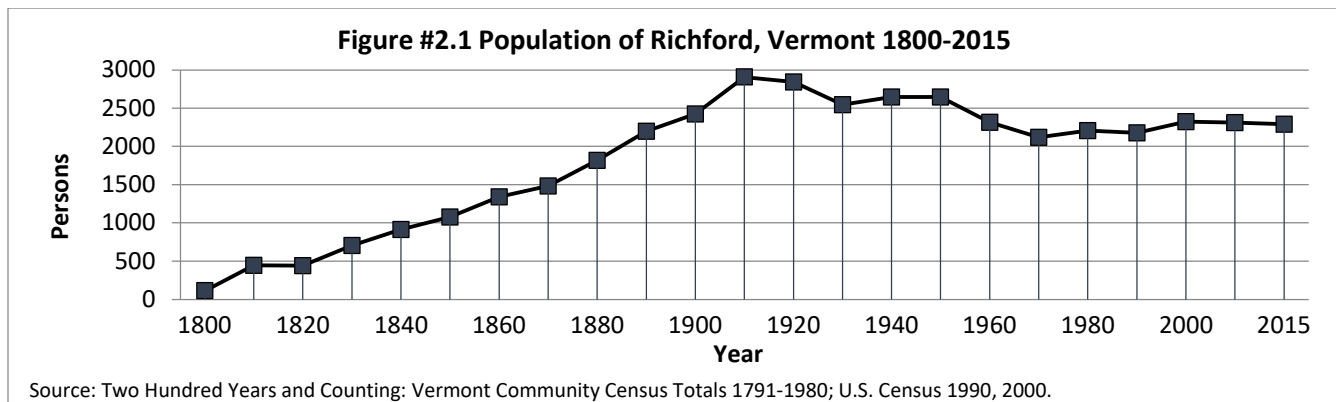


Table #2.1 shows the population for Richford and the bordering communities. It shows that, with the exception of Richford, populations have generally been increasing in the region over the last sixty years.

Table #2.2 shows the percent change within each decade for Richford and Franklin County from the year 1960 to the year 2015. Richford's population behaved independently of the rest of the county. Populations in the county have been steadily growing since the 1960's, while the town's population has been fluctuating up and down within about 200 persons.

Table #2.1 Population for Richford, VT and its Surrounding Communities							
Year	1960	1970	1980	1990	2000	2010	2015
Richford	2,316	2,116	2,206	2,178	2,321	2,308	2,287
Montgomery	876	651	681	823	992	1,201	1,148
Enosburgh	1,966	1,918	2,070	2,535	2,788	2,781	2,766
Jay	197	182	302	381	426	521	806
Westfield	347	375	418	422	503	495	554
Berkshire	965	931	1,116	1,190	1,388	1,692	1,702
Franklin County	29,474	31,282	34,788	39,980	45,417	47,746	48,799

Source: US Census of Population, American Community Survey 2011-2015

Table #2.2 Percent Change in Population						
	% Change 1960-1970	% Change 1970-1980	% Change 1980-1990	% Change 1990-2000	% Change 2000-2010	% Change 2010-2015
Richford	-8.64	4.25	-1.27	6.57	-0.56	-0.91
Franklin County	6.13	11.21	14.92	13.60	4.88	2.21

### Age Distribution/Growth by Group

The median age in 2015 for the residents of Richford was 43.8 years. This is higher than the State of Vermont's median age of 42.4 years and higher than Franklin County's median age of 39.9 years. Richford, Franklin County, and the State of Vermont have seen a significant increase in their median ages since 1990.

Table #2.3 Age Distribution												
	% of Pop < 18 years			% of Pop 18-64 years			% of Pop 65+ years			Median Age (years)		
	2000	2010	2015	2000	2010	2015	2000	2010	2015	2000	2010	2015
Richford	25.9	24.2	21.3	57	59.2	62.3	17.1	16.6	16.4	37.8	40.7	43.8
Franklin County	28.1	24.7	23.4	60.9	63.1	63.1	11	12.2	13.4	35.7	39.6	39.9
State of Vermont	24.2	20	19.7	63	65.1	64	12.7	14.9	16.3	37.7	42	42.4

Source: US Census 2000; 2010, American Community Survey 2011-2015

Richford, along with Franklin County and the State of Vermont, has seen a drop in the percentage of its under 18 population since 2000; while the percentage of the population between the ages of 18 and 64 has seen an increase. Richford is unique in that its 65 and over population has decreased while the County and State both increased.

### Special Populations

In 2010, the U.S. Census provides information about the number of people with various levels and types of disabilities. As seen in Table #2.4, Richford had higher percentages of persons of all ages with a mobility or self-care limitation than Franklin County or the State of Vermont, but a lower percentage than the County for persons between sixteen and sixty-four with a work disability. People with disabilities require special needs housing, social, and economic services, which are discussed in the Housing, Utilities, Facilities and Services, and the Economics Chapters.

Table #2.4 Percent of People with a Work Disability, Mobility Limitation, or Self-Care Limitation			
	Civilian Non-institutionalized Persons 18-64 years		Civilian Non-Institutionalized Persons 65 years and over
	% with a Disability	% with a self-care limitation	% with a mobility or self-care limitation
Richford	11.6	13.1	46.2
Franklin County	12.3	8.8	37.4
Vermont	9.7	7.3	33.9

Source: American Community Survey 2011-2015

## Household & Household Types

The way the population groups itself into households affects the demand for housing, community services, and employment. Table #2.5 shows the number and percentages of households in Richford in 2000 and 2015. The number of households grew by 11 between 2000 and 2015. Overall, the percentage of one person households increased the most. Although there was a 2 percent decrease in family households from 2000–2010, it increased 1 percent by 2015. There was also an increase of 5.23 percent for family households with a single parent.

Household Type	2000	% of Total Households	2010	% of Total Households	2015	% of Total Households
Total Households	899	100	900	100	910	100
Family Households	613	68.2	596	66.2	654	71.9
Married Couple Families	465	51.7	417	46.3	460	50.5
Male Householder - no wife	46	5.1	64	7.1	78	8.6
Female Householder - no husband	102	11.3	115	12.8	116	12.7
Non-family Households	286	31.8	304	33.8	256	28.1
One-person (householder living alone)	231	25.7	245	27.2	198	21.8

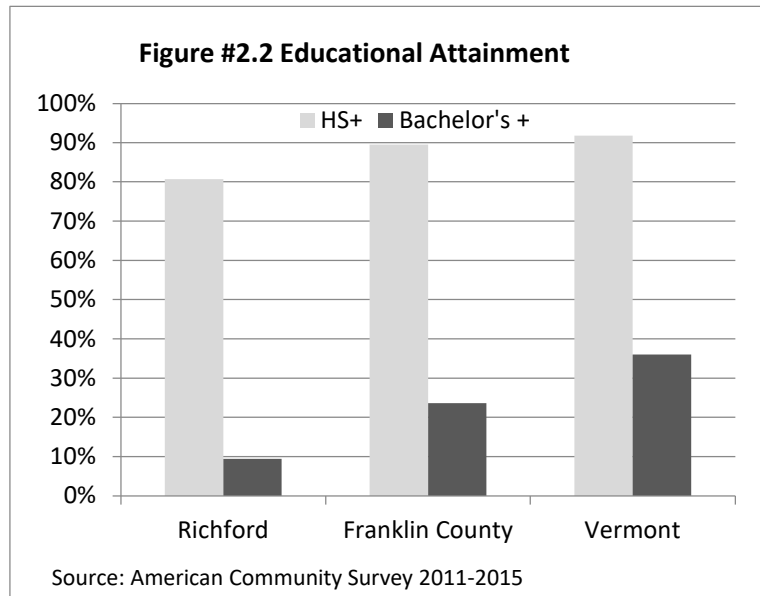
Source: US Census of Population and Housing 2000: 2010, American Community Survey 2011-2015

## Education Level

In the Town of Richford, 80.7 percent of its residents are high school graduates or have a higher level of education, 9.4% of those people have a bachelor’s degree or higher. Richford’s rates are lower than both the county and state.

This low figure for the town has been improving over time; in 1990 the figure was 60.0 percent while in 2000 the figure was 70.1 percent, and by 2015 rose to 80.7 percent. The high school dropout rate for the 2015-2016 school year was 14.29 percent. The drop out rate in Richford is well above the State’s rate, which was 9.23 percent for the 2015-2016 school year.

The Town also had a lower percentage of people with a Bachelor’s degree than either the County or the State did in 2015. Figure #2.2 shows the percentages of high school graduates and those with a Bachelor’s degree in 2015.

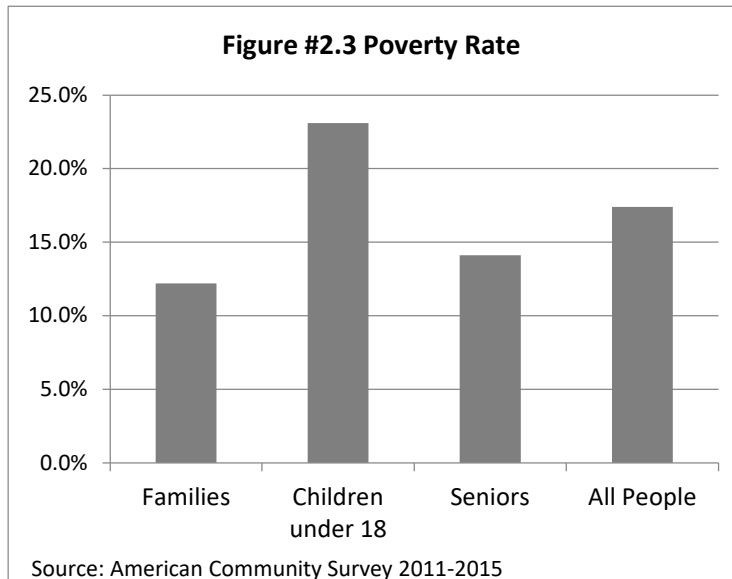




## Income

The median household income in 2015 for Richford was \$43,306. Median household income for the Town increased by 17.4 percent from 2010 to 2015, with both the County and State having lower increases of 8.53 and 6.49 percent respectively. From 2010-2015, Richford saw a 4.2 increase of the number of persons living below the poverty level from 13.2 percent to 17.4 percent. Figure #2.3 shows a breakdown of poverty rates among different groups of people.

Table #2.6 shows both the median household incomes for Richford, Franklin County, and the State of Vermont and the percentage of persons living below the poverty level. The Department of Taxes tracks individual incomes (unlike the Census, which records 'household' incomes) so the figures are lower but still allows for comparisons. In 2015, the median household income for a resident of Richford was \$43,306 – the lowest in Franklin County. The percentage of households receiving Supplemental Nutritional Assistance Program (SNAP or Food Stamps) benefits is 30.7%.



In 2015, the median household income for a resident of Richford was \$43,306 – the lowest in Franklin County. The percentage of households receiving Supplemental Nutritional Assistance Program (SNAP or Food Stamps) benefits is 30.7%.

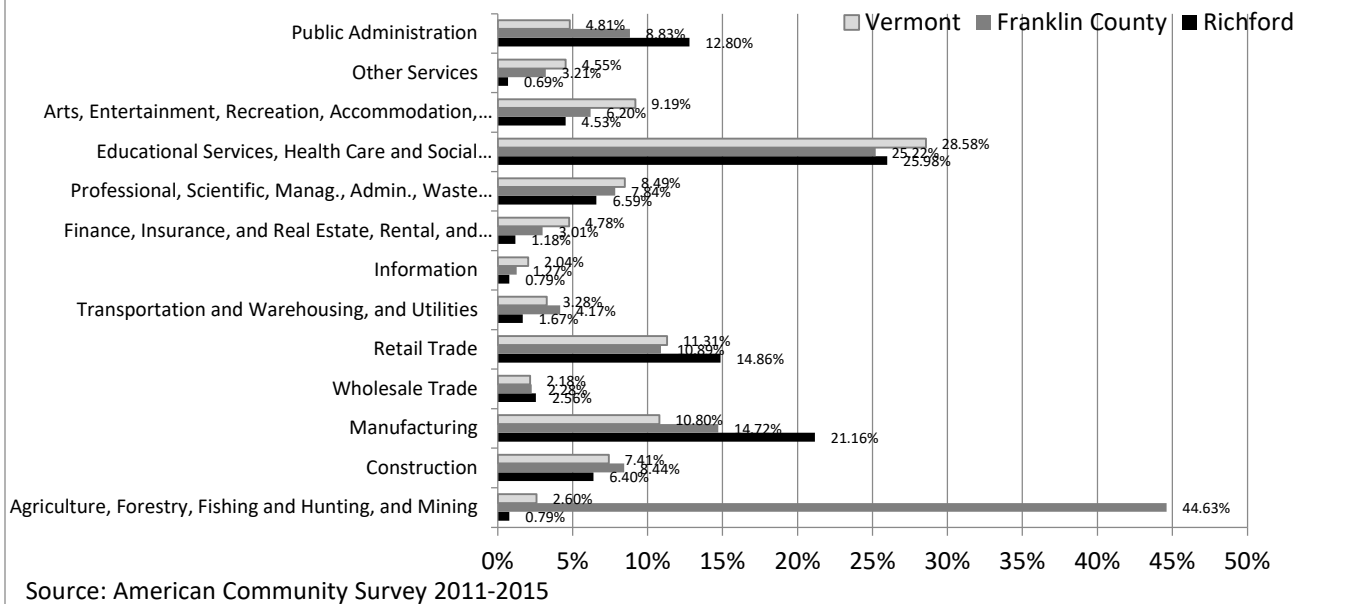
<b>Table #2.6 Median Household Income, Percent Change, and % Below Poverty Level</b>					
	2000	2010	2015	% Change 2000-2015	% of all persons living below the poverty level 2015
Richford	\$28,125	\$36,890	\$43,306	54	17.4
Franklin County	\$41,659	\$53,623	\$58,199	39.7	8.7
Vermont	\$40,856	\$51,814	\$55,176	35	11.5

Source: US Census of Population 2000: 2010, American Community Survey 2011-2015

## Employment

Figure #2.4 shows the employment breakdown by industry for Richford, Franklin County, and the State of Vermont. The greatest percentage of Richford residents were employed in the educational services, healthcare, and social assistance sector (26.0%) in 2015. The educational services sector includes all persons employed by public or private educational institutions or other centers of education. Health care includes all types of medical offices, laboratories, hospitals, home health care, and health care insurance offices. Social assistance includes individual and family social services, job training and vocational rehabilitation, day care, and residential care. Examples of this type of industry in Franklin County include the Northwest Medical Center, Richford Health Center, Our Lady of the Meadows, and Northwest Counseling and Support Services. Manufacturing employs the second largest percentage of workers in Richford at 21.2%. Examples of this type of industry in Franklin County include, Franklin Foods, Energizer, Mylan Technologies, and Carroll Concrete.

**Figure #2.4 Employment by Sector**



**Table #2.7 Where People Living in Richford Work**

	Count	Percent
Enosburg Town	121	13.1%
Richford	94	10.1%
St. Albans Town	70	7.6%
St. Albans City	63	6.8%
Burlington	54	5.8%
Williston	52	5.6%
Jay	48	5.2%
South Burlington	41	4.4%
Montgomery	39	4.2%
Essex	37	4.0%
All Other Locations	308	33.2%
<b>Total</b>	<b>927</b>	<b>100.0%</b>

Data Source: 2014 LEHD on the Map

**Table #2.8 Where People Working in Richford Live**

	Count	Percent
Richford	94	25.6%
Montgomery	65	17.7%
Enosburgh Town	57	15.5%
Berkshire	31	8.4%
Bakersfield	8	2.2%
Fairfield	7	1.9%
St. Albans City	7	1.9%
Burlington	6	1.6%
Highgate	6	1.6%
St. Albans Town	6	1.6%
All Other Locations	80	21.8%
<b>Total</b>	<b>367</b>	<b>100%</b>

Data Source: 2014 LEHD on the Map

The majority of Richford’s residents work in Franklin County, with the greatest percentage working in Enosburgh. Some 15.4% travel to Chittenden County, while another 33.2% work in other Vermont counties and towns. See Table #2.7 for a breakdown of where Richford residents work.

Persons that are employed in the Town of Richford come largely from towns in Franklin County, with Richford holding the greatest percentage. Workers coming from Montgomery and Enosburgh hold the second and third highest percentages respectively. See Table #2.8 for a breakdown of where workers in Richford reside.

## CHAPTER 3: HISTORIC FEATURES

### Archeological Sites

Archeological sites contain a fragile, complex and irreplaceable record of past human activities. Richford has several known archeological sites and areas having a high probability of containing archeological remains. Because only a few areas in Vermont have been systematically surveyed to identify and evaluate archeological sites, it is misleading to precisely map known sites. The known, inventoried sites constitute only a fraction of those sites that potentially exist. Furthermore, archeological sites may be easily vandalized. For these reasons, site locations are not specifically pinpointed in this town plan. The area in Richford of known “moderate to high sensitivity” is the 3.5-mile segment of the Missisquoi River from the Berkshire town line to one mile east of the village district.

### The Historical District

A complete survey of the historical buildings in Richford, including the mapping of the Downtown Richford Historic District and the East Richford Historic District, was completed in 2001 by the Vermont Division of Historic Preservation and chronicled in a book titled The Historic Architecture of Richford. This book hereby incorporated by reference into the Richford Town Plan. The Downtown Historic District is one of only a handful of sites in Vermont on the National Register of Historic Places.

### Cemeteries

Cemeteries can offer some of the best glimpses into the past. The earliest known cemetery in Richford is Davis Family Cemetery dating back to 1809. Although only three headstones remain, it is believed that earlier there had been more. A few years later a second cemetery was established on what is now Troy Street.

## HISTORIC AND ARCHEOLOGICAL RESOURCES GOALS AND POLICIES

**GOAL: TO RECOGNIZE THE ROLE OF RICHFORD'S ARCHAEOLOGICAL AND HISTORIC RESOURCES IN SHAPING THE TOWN'S PRESENT QUALITY OF LIFE AND FUTURE OPPORTUNITIES.**

**POLICIES:**

- Protect sites of potential archaeological significance.
- Projects occurring in the ‘archeologically sensitive region’ should consider the potential impact of their project on sites during the early stages of development. This will offer the best opportunity to mitigate potential impacts.
- Encourage the renovation and reuse of historic buildings whenever feasible.
- Work with the Division of Historic Preservation to expand the state historic district in the Designated Village Center.
- Encourage the promotion and protection, to the extent feasible, of the Richford Historic District.

# CHAPTER 4: HOUSING

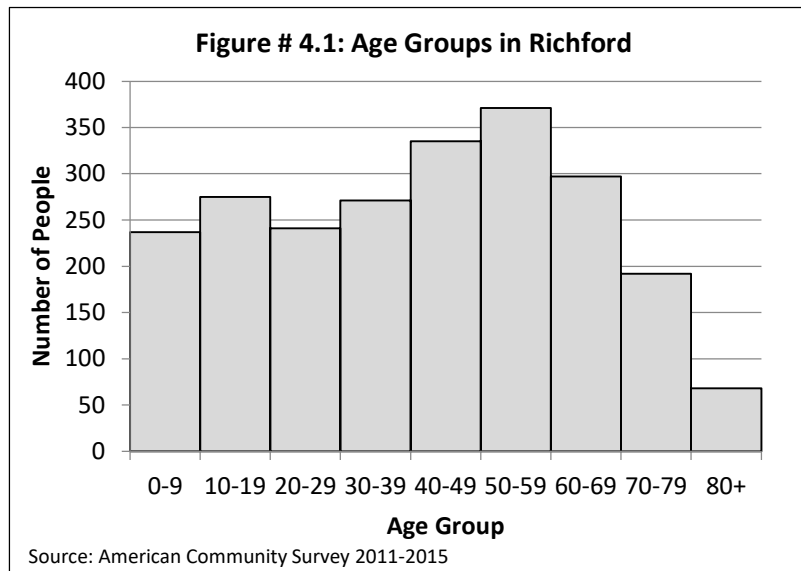
## Overview

Housing is an integral component of a community’s cultural and built environments. All Richford residents, present and future, are entitled to safe and affordable housing. Housing development does increase demands on available facilities and services and may adversely affect environmentally sensitive areas. Planning is necessary to meet anticipated needs, to avoid overburdening services, and to protect natural resources. Housing considerations include not only the character of the housing stock, but also the patterns of development within the community and housing affordability.

## Housing Needs

People have different housing needs at different ages. Richford’s housing goal includes a statement to ensure that each age group has an adequate supply of housing to meet their needs.

The largest cohorts of Richford’s population are persons aged 40-69, indicating that rental options, smaller homes for empty nesters, and senior housing are currently in highest demand. The senior population can be expected to increase as the “baby boomer” population (ages 53-71 in 2015) grows older. These trends indicate that a variety of senior housing options, including small home ownership, rental opportunities, and various levels of assisted living and institutional care, are needed and will be in higher demand in the future.



According to the 2011-2015 American Community Survey, more non-families and families own homes than rent homes, 706 vs. 204 respectively which may indicate that ownership is preferred and/or is affordable. Families are defined as married couples, single parents with children, or related individuals living together. Non-family households are either persons living alone or a group of unrelated individuals. Of the 910 households in the 2015 American Community Survey, 654 were families and 256 were non-family.

## Evaluation of Housing Supply

### Housing Unit Growth

Generally, local, regional, and national trends saw housing units grow at higher rates than

	1980-1990	1990-2000	2000-2010	2010-2015
Population	-1.27%	6.57%	-0.56%	-0.91%
Housing Units	10.25%	5.06%	0.11%	1.11%

Data Source: U.S. Census, American Community Survey 2015

population during the eighties. During the nineties growth rates began to even out in most areas, while in Richford population grew at a higher rate than housing units. In part, the higher rate of increase in the number of total households can be explained by a reduction in the average number of persons per household. In Richford, average household size decreased from over 3 people in 1970 to 2.48 in 2015, indicating that more units are required to shelter the same number of people.

**Type and Size of Housing Units**

An examination of the types of housing structures reveals a wide variety of housing choices. Of the 1,080 units reported in the 2011-2015 American Community Survey, 784 (72.6%) are single unit structures. Another 122 (11.3%) units were contained within 2 to 4 unit structures (small buildings) while another 57 (5.3%) units were in structures containing more than 5 units (larger buildings). Richford also has 117 (10.8%) mobile homes. This shows that a variety of options and sizes of units exist in Richford.

**Vacant Housing Units**

According to the 2011-2015 American Community Survey, of the 1,080 housing units, 170 were vacant which represented 15.7% of the total housing units. Of those, 119 were seasonal units making the actual vacancy rate 4.7% in Richford. This was an decrease from the 2010 vacancy rate of 10.6% (not including seasonal houses). The vacancy rate for non-rental housing in Franklin County was 3.5% and 1.2% for rental housing in 2015. The optimum vacancy rate is 3% for non-rental housing and 5% for rental housing. Richford’s vacancy rate (computed for non-rental and rental housing combined) is within the optimum level.

**Housing Unit Quality**

One major factor contributing to the decline of housing quality in Richford has been the age of the structures. In 2010, the Census reported that 58.1% of the houses in the town were built

before 1939; Richford has the highest percentage of pre-1939 housing of any town in Franklin County. Throughout Vermont, only 28.9% of housing is older than 1939.

Enforcement of the Minimum Housing Code Ordinance is considered the best step towards improving the quality of housing stock. The Housing Code Enforcement Officer assisted by the State Fire Marshall and Richford’s Fire Chief, has been working to enforce the ordinance. The Enforcement Officer is also working with the NRPC to update the existing housing code to meet state standards.

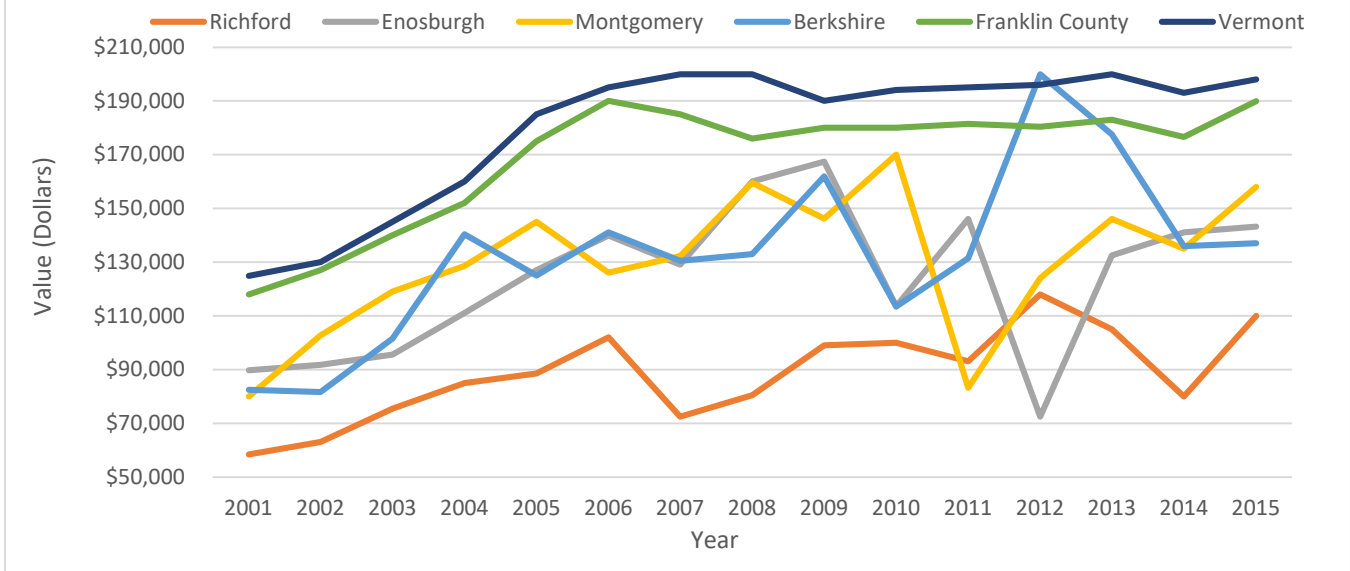
<b>Table # 4.2 Median Gross Rent</b>	
Franklin County	\$870
Berkshire	\$1113
Montgomery	\$995
<b>Richford</b>	<b>\$776</b>
Enosburgh	\$743
Data Source: American Community Survey 2015	

Although efforts have been made to improve the situation, property values in Richford continue to be the lowest of any town in Franklin County. According to the 2011-2015 American Community Survey and Vermont State Tax Data, the median value for an owner-occupied unit was \$124,800 in 2015. By way of comparison, median residential value in Berkshire was \$179,300, in Enosburgh was \$179,100, and in Montgomery was \$179,200.

**Affordable Housing**

Figure #4.2 shows the median prices of primary residences sold in Richford and surrounding communities based on Vermont State Tax Data. From 2001 to 2015, the median sale price of primary residences increased by 83 percent in Richford and by 61 percent in Franklin County. However, Richford’s median sale price is the lowest in the County (see Figure #4.2).

**Figure # 4.2 Median Sale Price of Primary Residences**



The standard state and federal definition of affordable home ownership is a mortgage (principle and interest) plus taxes and property insurance that consumes no more than 30 percent of 80 percent of the County’s median household income. Table #4.3 shows the affordability gap for non-rental housing. In 2015, the median sale price for primary residences in Richford was \$110,000 and 80 percent of Richford’s median household income in 2015 was \$34,644. The maximum affordable mortgage for 80 percent of the Town’s median household income was \$66,061, indicating that 80 percent of the median income could afford a home at the 2015 median home price in Richford, leaving a positive affordability gap of \$43,939.

**Table #4.3: Homeownership Affordability in Richford**

	30% of Income			Taxes and Insurance	Income Available for Housing/Month	5% Down Payment	Maximum Affordable Mortgage	Median Sale Price for Primary Residences in Richford (2015)	Affordability Gap
	Per Year	Per Month							
<b>MSA Median Household Income</b>									
100%	\$61,763	\$18,529	\$1,544	\$647	\$897	\$5,500	\$183,936	\$110,000	\$73,936
80%	\$49,410	\$14,823	\$1,235	\$647	\$588	\$5,500	\$118,724	\$110,000	\$8,724
50%	\$30,882	\$9,264	\$772	\$647	\$125	\$5,500	\$20,904	\$110,000	(\$89,096)
30%	\$18,529	\$5,559	\$463	\$647	(\$184)	\$5,500	(\$44,309)	\$110,000	(\$154,309)
<b>Richford Median Household Income</b>									
100%	\$43,306	\$12,992	\$1,083	\$647	\$436	\$5,500	\$86,497	\$110,000	(\$23,503)
80%	\$34,645	\$10,394	\$866	\$647	\$219	\$5,500	\$40,773	\$110,000	(\$69,227)
50%	\$21,653	\$6,496	\$541	\$647	(\$106)	\$5,500	(\$27,816)	\$110,000	(\$137,816)
30%	\$12,992	\$3,898	\$325	\$647	(\$322)	\$5,500	(\$73,539)	\$110,000	(\$183,539)
Data Source: Median income based on 2009-2013 American Community Survey 5-year estimates; taxes and insurance are an estimate; median sale price for primary residences in Richford was obtained from the Vermont Department of Taxes; all other figures computed by the NRPC. Maximum affordable mortgage rates include a 4% mortgage rate.									

Affordable rent is defined by the State of Vermont as a household earning no more than 80 percent of the Metropolitan Statistical Area’s (MSA’s) median household income that spends no more than 30 percent of their income on rent plus utilities. According to the 2011-2015 American Community Survey, the median gross rent in Richford was \$766. Richford has a negative rental affordability gap (see Table #4.4).

Overall, this data indicates that affordable homeownership and rental housing is available in Richford. However, although it cannot be demonstrated from the affordability analyses, there may be a pressing need for additional mid-income housing opportunities, particularly for renters. The expansion in quality area units would provide the opportunity for young professional people to live and work in the Richford community, and allow them to participate more fully in community activities.

<b>Table #4.4 Renter Affordability in Richford</b>						
Percent of Richford Town Median Household Income	30% of Income			Income Available for Housing/Month	Median Rent	Affordability Gap
	Per Year	Per Month				
<b>MSA Median Household Income</b>						
100%	\$61,763	\$18,529	\$1,544	\$1,544	\$776	\$768
80%	\$49,410	\$14,823	\$1,235	\$1,235	\$776	\$459
50%	\$30,882	\$9,264	\$772	\$772	\$776	-\$4
30%	\$18,529	\$5,559	\$463	\$463	\$776	-\$313
<b>Table #4.5 Richford Median Household Income</b>						
100%	\$43,306	\$12,992	\$1,083	\$1,083	\$776	\$307
80%	\$34,645	\$10,393	\$866	\$866	\$776	\$90
50%	\$21,653	\$6,496	\$541	\$541	\$776	-\$235
30%	\$12,992	\$3,898	\$325	\$325	\$776	-\$451
Data Source: Median income and rent based on 2011-2015 American Community Survey 5-year estimates; all other figures computed by the NRPC						

### Special Needs Housing

Within every community are individuals or families with special housing needs, such as the elderly, families in poverty, and the disabled. Special housing needs may require group quarters or institutional care, such as nursing homes, correctional facilities, group homes, and homeless shelters. To meet the needs of the community, a variety of types of facilities are necessary and available.

The 2011-2015 American Community Survey summarizes some of the characteristics of those who have special needs.

- There were 375 seniors living in Richford.
- There were 82 seniors living alone; of them, 50 were women.
- 14.1% of seniors also lived in poverty.
- 12.2% of families in Richford lived in poverty.
- 23.1 % of all children under 18 lived in poverty.

Richford has a sizable population of persons and families with special needs. In addition to a variety of services and programs (which are discussed in a later section), there are four facilities that operate to meet special housing needs in Richford (listed below). In total, Richford has 31 low-income senior or disabled units, 5 units for mentally handicapped, and 88 units of assisted living, including 45 units to assist seniors with memory loss.

**Missisquoi Manor** - This was constructed in the early 1980's with Section 8 funding and contains elderly and handicapped housing. It has 24 single bedroom units but is typically full, though waiting lists are short. To qualify, applicants must be either disabled or over 65, and have either low or very low income (as defined by HUD).

**Academy Lane Apartments** - Located on Intervale Avenue, the Old School House has been renovated to seven senior handicap accessible apartments.

**Ave Maria Community Care Home** - Locally owned and operated, Ave Maria is licensed as a Level III Residential Care facility located on School Street, providing 24 hour residential care for up to 17 residents. Nurse overview and medication administration is provided. Services include an activity director, in-house doctor visits, a beautician, three French-speaking staff, daily devotions for those interested, weekly prayer services provided by area clergy, and weekly transportation to church. Meals are prepared by an in-house chef.

**Our Lady of the Meadows** - Located on Pinnacle Meadows, this facility is also a Level III residential care facility. Owned and operated by Doe Family, the Meadows has a total of 71 units all with private bath, including the St. Joseph's Memory Loss Unit (45 units), a special unit devoted to the care of seniors with dementia, Alzheimer's, and other memory disabilities.

In summary, housing for seniors is available, especially for those with assisted living requirements. But more of these types of units are still needed especially for low-income and Level I and II living requirements.

### [Housing Assistance Agencies](#)

To meet housing needs Richford, the State, and the Federal government have a variety of programs to support residents with special needs.

The **Vermont Housing Finance Agency (VHFA)** is the state's largest financier of affordable home ownership opportunities. VHFA directs its funding toward increasing the availability of both new and rehabilitated low-cost housing.

The **Office of Economic Opportunity** administers a number of programs for low income Vermonters including financial assistance for homeless and emergency shelters.

The **Vermont State Housing Authority (VSHA)** administers rental assistance programs and helps private and non-profit developers of affordable housing. The primary source of funding comes from HUD through the various "Section 8" programs. VSHA also administers the ENABLE program that provides loans to improve handicap accessibility.

The **Champlain Housing Trust**, serving Chittenden, Grand Isle, and Franklin Counties, has a Housing Loan Fund that includes Home Repair Loans. This Loan helps with roof replacement, electrical updates, plumbing or septic repairs, well repairs or replacement, and furnace replacement. It can also be used to finance home access modifications and energy efficiency upgrades.

**Richford Renaissance:** The mission of Richford Renaissance is to improve Richford housing for the benefit of the occupants and the community. One of their goals is to improve the quality and preserve affordability of housing for homeowners and renters by identifying projects for housing improvements and providing information and assistance to renters and owners. They also develop, operate, finance, and manage affordable housing projects for the Designated Village Center.



## Residential Development Pattern

Current development patterns show that, with the exception of higher density residential areas in the village district, lower density housing is distributed mostly in the northern and western sections of Richford, along river valleys. The constraints of soil and topography limit residential development elsewhere in the town. Generally, this distribution includes farm dwellings and single-family homes adjacent to traveled roads, and clusters of housing in the historically settled hamlets of Stevens Mills, East Richford, and South Richford. High density housing in Richford should continue to be developed within the village district where municipal water and sewer are located.

## Conclusions

Richford's housing is affordable, plentiful, located centrally around the village district, and of many types, styles, and sizes. There are many historic buildings in the village district which have been rehabilitated and maintained for private or public use. Unfortunately, a great many houses in Richford are old and in disrepair, so the main problem is ensuring safe, healthy and attractive housing.

The Town of Richford has taken direct steps to help solve these issues. A Housing Code Enforcement Officer has the responsibility of inspecting rental units in the village district to ensure they meet fire and safety codes. This has been instrumental in shutting down the most troublesome rental units and improving many others.

A second significant step is the formation of Richford Renaissance Corporation to take a proactive approach to ensuring safe and affordable housing. In the past five years, many projects were completed in the Designated Village Center including the removal of some blighted buildings and the construction of senior housing.

## HOUSING GOALS AND POLICIES

### GOALS:

**THAT RICHFORD HAS AN ADEQUATE SUPPLY OF SAFE, HEALTHY, ATTRACTIVE AND AFFORDABLE HOUSING THAT SATISFIES RESIDENTS' NEEDS.**

**THAT RICHFORD HAS HOUSING AVAILABLE IN A VARIETY OF TYPES FOR ALL INCOMES AND AGES AND IS IN A CONVENIENT LOCATION FOR EMPLOYMENT, SERVICES, RETAIL CENTERS, AND EDUCATIONAL AND RECREATIONAL FACILITIES.**

**THAT RICHFORD HOUSEHOLDS AND INDIVIDUALS WITH SPECIAL HOUSING NEEDS, INCLUDING THE ELDERLY, HANDICAPPED, LOW AND MODERATE-INCOME HOUSEHOLDS, AND THE MENTALLY ILL ARE ABLE TO ATTAIN SUITABLE AND AFFORDABLE HOUSING.**

**THAT HISTORIC BUILDINGS WILL BE MAINTAINED AND CONTINUE TO BE USED TO HOUSE THE RESIDENTS OF RICHFORD.**

### POLICIES:

#### Housing supply and demand

- Prioritize the rehabilitation of vacant housing units in town over new housing development in the allocation of public funds if such units can be renovated to provide safe housing.
- Support using the second story of commercial buildings for residential rental units.

#### Housing safety and quality

- Fully support the efforts of the Housing Code Enforcement Officer, Fire Chief, and State Fire Marshall in their enforcement of the Minimum Housing Codes and revise housing codes to improve the quality of rental units in the village.
- Prohibit residential development in the floodplain.

#### Aesthetics

- Ensure that housing and buildings in the village reflect the architecture and settlement patterns that characterize Richford.
- Ensure that landscaping and site design reduce adverse impacts of new housing on neighbors and preserve the unique and individual characteristics of the Village Residential and Mixed-Use Districts.

#### Special housing needs

- Minimize long-term living costs through high quality design, efficient construction, and energy efficiency to provide affordable housing
- Promote development that is inherently more affordable by nature of cost efficiencies associated with construction (e.g. walkability, infrastructure, shorter access roads, and proximity to public utilities) by consulting land use patterns.

#### Housing assistance agencies

- Support efforts by municipal, regional, and non-profit organizations to provide increased opportunities for affordable home ownership.
- Support efforts that assist elderly and disabled residents to remain in their homes (if desired) and support community-based health care systems that enable elderly and disabled people to remain in the community.

## CHAPTER 5: PUBLIC UTILITIES

### Overview

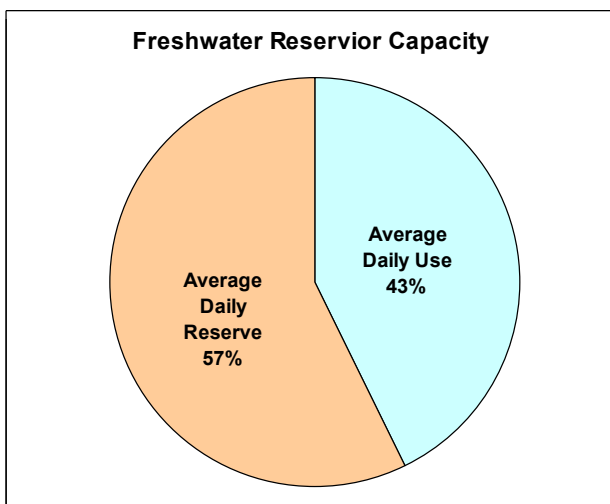
Richford has invested in public infrastructure that benefit both the people of Richford and the regional economy.

### Water Services

The primary source of village water is the Stanhope Brook. The Loveland Brook serves as a secondary source. The system has a total capacity of 471,000 gallons per day, while 202,100 gallons per day are currently being used. This leaves a reserve capacity of 268,900 gallons per day. Most properties in the village district are connected to the water system and capacity still exists to serve future development. The 1889 water system serves as emergency backup for the current system.

The slow-sand filtration system receives water from either the brook or the reservoir. After being filtered and chlorinated, water is stored in the 1 million gallon covered reservoir until being drawn through transmission lines to the network of distribution lines.

**Figure #5.1**



Village Trustees approved an ordinance in August 1993, which established rules and regulations for the water system. All properties connected to the system are now billed a base rate, set below the previous rate, on a semi-annual basis. This rate only covers a user's connection to the system, not for water usage. Users pay for each gallon they use on top of the base rate. The intent of the rate change was to assure enough revenue to make payments on the bond and to operate the system efficiently.

One impact of the rate change was an increase in conservation. Water use has decreased since it was instituted as residents have repaired leaks and purchased more efficient washing machines and toilets. The town has initiated efforts to protect the watershed areas of the system.

Richford residents, outside of the water system service area, maintain private springs or wells as their source of potable water.

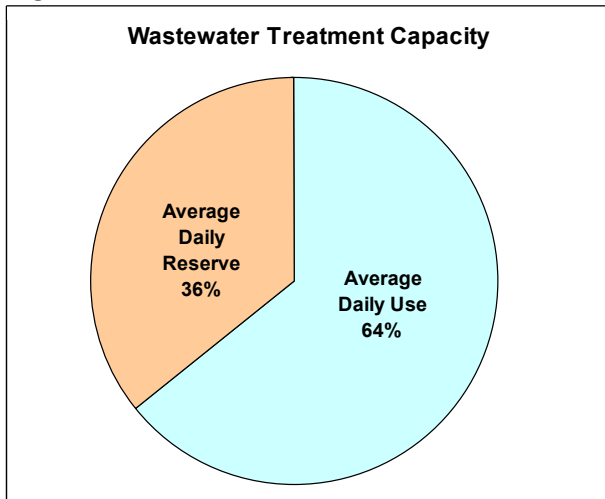
### Wastewater Treatment

The town owns and operates a wastewater treatment facility. The facility was built in 1969/1970 and serves most of the village district properties and a small number of town properties. The treatment plant has a design capacity of 380,000 gallons per day (GPD) for the primary and secondary aerated lagoons. Currently, only 244,100 GPD are being used; this leaves a reserve of 135,900 GPD.

Waste flows by gravity from properties on the north side of the river to a pumping station at the playground on Intervale Avenue and from properties on the south side of the river to a pumping station located behind the

bank on Main Street. A third pumping station is located in the business park on Route 105, west of the village district. Wastes are pumped from these collection points to the treatment plant.

**Figure #5.2**



Most residents outside of the village district depend on on-site systems, primarily septic and mound systems, for sewage disposal. Richford’s Selectboard, acting as the Board of Health, assisted by the Town Health Officer, addresses some sewage problems yet most wastewater issues are now under the jurisdiction of the Vermont Department of Environmental Conservation (DEC). As noted earlier, many of the soils in Richford are not suited for standard septic systems because of their slope characteristics, shallow depth to the seasonal water table or bedrock, and/or low percolation rates. For health reasons, proper system siting and design are especially important in these areas.

#### Solid Waste

The Town of Richford currently has a contract with Bruce Weatherby for the disposal of solid waste in the special district. Town residents outside of the district may either take the trash to transfer stations in Montgomery or Highgate or hire private haulers for collection. Richford is a member community of the Northwest Vermont Solid Waste Management District which has a regional solid waste management plan and a certified regional facility.

The Northwest Solid Waste District sponsors many activities such as “special collections” (bulky items, scrap metal, and tires) and Household Hazardous Waste (HHW) collections (oil based paints, solvents, cleaners, pesticides, and other chemicals that would be harmful to the environment if not handled properly). Recycling is mandatory in the Solid Waste District and is free of charge. There is also a Backyard Burning Ordinance and an Illegal Dumping Ordinance in effect at the District level. It is illegal to burn or dump garbage within the Town of Richford.

#### Telecommunication and Information Services

The Town of Richford, particularly the village district has infrastructure available that is much underutilized. Richford has been the beneficiary of the installation of many types of infrastructure like coaxial cable, fiber optic lines, T1 telephone, and several cellular phone towers. All of the infrastructure needed to create a high-tech Town is in place - all that is needed is a plan to bring the businesses to the resource.

Comcast provides cable and internet service in Richford. Fairpoint provides telephone and internet in Richford. There are two cellular companies serving the area, Verizon Wireless and AT&T. Cell service and roaming charges continue to be an issue near the border.

## PUBLIC UTILITIES GOALS AND POLICIES

**WATER SERVICES GOAL: THAT RICHFORD HAS AN ADEQUATE AND RELIABLE SUPPLY OF CLEAN WATER FOR ALL RESIDENTS AND VISITORS.**

**POLICIES:**

- Monitor development in the Stanhope Brook watershed and adopt land use regulations to minimize development in this area.
- Enforce the Water Supply Ordinance, including provisions for the expense of expanding the system to be borne proportionately by the developer(s).
- Continue upgrades and improvements of the municipal water system.

**WASTEWATER TREATMENT GOAL: THAT ALL WASTEWATER IN RICHFORD IS TREATED APPROPRIATELY, WHETHER ON-SITE OR AT THE MUNICIPAL SEWER PLANT, TO PROTECT THE HEALTH OF RESIDENTS AND THE ENVIRONMENT.**

**POLICIES:**

- Enforce the Wastewater Treatment System Ordinance, including provisions for the expense of expanding the system to be borne proportionately by the developer(s).
- Continue upgrades and improvements of the municipal wastewater treatment system.

**SOLID WASTE GOAL: THAT RICHFORD HAS A CONVENIENT, COST-EFFECTIVE, AND ENVIRONMENTALLY SOUND SOLID WASTE DISPOSAL SYSTEM WHICH PROMOTES REDUCTION, REUSE, AND RECYCLING.**

**POLICIES:**

- Continue to provide solid waste collection in the village district that is equitable and affordable for ratepayers.
- Implement mandatory recycling.
- Help the Northwest Solid Waste Management District in their efforts, including special collections of household hazardous materials and bulky items.

**TELECOMMUNICATIONS AND INFORMATION GOAL: TO CONTINUE TO PROVIDE STATE OF THE ART TECHNOLOGY FOR BUSINESSES AND INDIVIDUALS IN THE TOWN OF RICHFORD.**

**POLICIES:**

- Support efforts to increase U.S. cellular phone service throughout Richford and to decrease roaming charges for citizens.

## CHAPTER 6: PUBLIC FACILITIES AND SERVICES

### Overview

This chapter will examine the facilities and services available to the people of Richford. Some of these are public services and are supported through taxes, while others are private initiatives which exist through donations or fees. In either case, Richford has a wealth of services and facilities available to businesses and residents alike.

### Public Facilities

**Arvin A. Brown Public Library** - The library has an excellent collection of fiction and literature; it includes large print materials for the visually impaired. In addition, the library is developing a strong multi-media collection including fiction and non-fiction videos and DVDs, computer software, audiobooks, and music.

In an effort to continue to act as a community center for information and entertainment, the library offers many regular programs. The programs offered include weekday and weekend story hours for toddlers and preschoolers, summer reading programs for elementary and secondary students, art classes, tutoring session in math, history and literature, and evening book discussions for adults. The library contributes activities and performers to the Richford Summer Day Camp hosts summer school classes, and partners with local service organizations and other Franklin County libraries to bring speakers and performance groups to the area. The library is also open to creating new programs that meet the needs of residents.

**The Post Office** - The Post Office Building is owned and maintained by the Town. Its contracted tenants include the U.S. Post Office and the Franklin Northwest Supervisory Union offices.

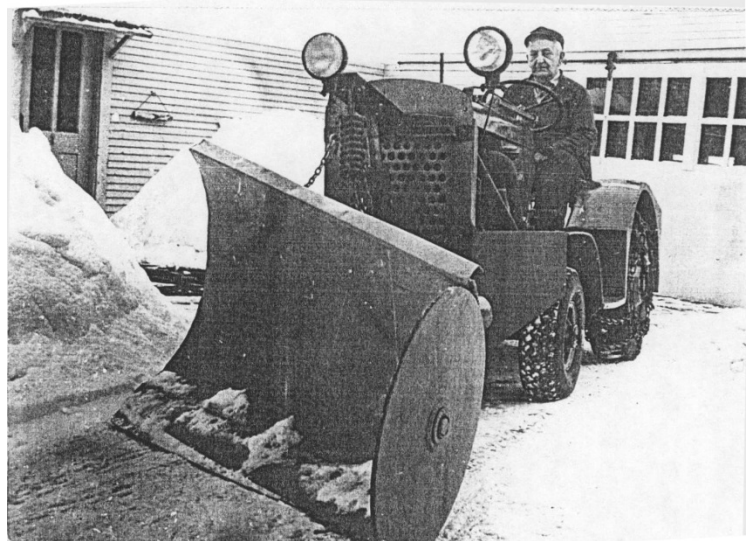
**The Town Hall** - The Town Hall was originally a church, built in 1871, and has been renovated many times over the years. It includes an 1872 Seth Thomas clock that chimes on the hour from the tower above. The Town Hall currently houses all of the Town's offices. The Colonial Theater, a beautiful auditorium on the second floor, continues to stage elementary and high school music and drama productions. It is the site for municipal meetings and public hearings, and is used by local groups and traveling performers for fundraising and cultural events.

The former jail is now part of the vault for town records. The Listers have a 1<sup>st</sup> floor office in what was once the coal bin. The former library is now offices for the town clerk, the administrative assistant and the zoning administrator. Exterior drainage work was completed in 2011.

**The Highway Department and Town Garage:** The Town Garage is in good condition and is adequate to serve the needs of the community for years to come.

Highway equipment includes:

- 1998 Mack Dump/Plow Truck
- 2000 International Dump/Plow Truck
- 2002 International Tandem Dump/Plow Truck
- 2007 International Tandem Dump/Plow Truck
- 2002 1-Ton Truck
- 2006 Pick-up Truck
- Cat Loader
- Cat Backhoe
- Grader
- Sidewalk Plow
- Kabota Tractor/ Mower/Plow



The high school, elementary school, and emergency services building each house an emergency generator to be used by the public in the case of a power outage or natural disaster.

### Police Services

Historically, Richford had a police department. However, this service was eliminated several years ago. At present, police protection is provided by the Franklin County Sheriff's Department and the State Police (the primary agent being the Franklin County Sheriff's Department). Local Municipal Ordinance Enforcement and parking violations in the Special District can be enforced by any enforcement agency and the Town Constable.

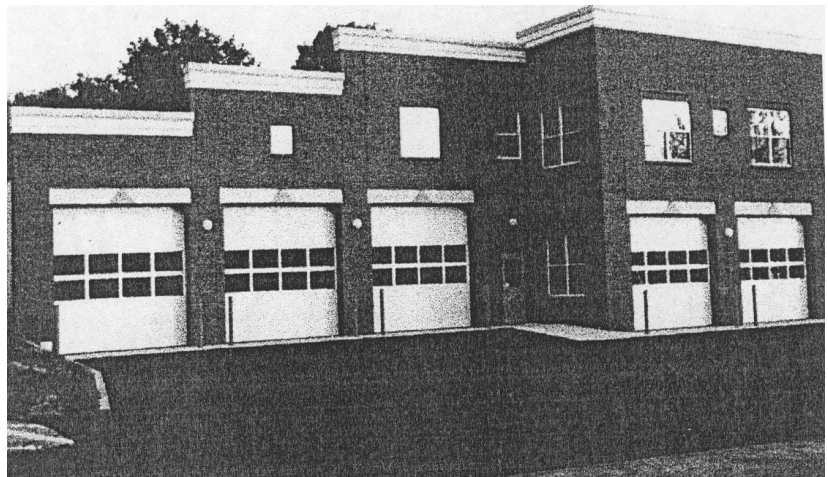


Photo 5: The emergency services building dedicated July 4, 1998.

### Fire Protection

The Richford Fire Department is now made up of trained and dedicated volunteers. The Department responds to mutual aid calls in Montgomery, Enosburgh, Berkshire, and Sutton, Quebec.

Members of the department are also active in the Richford Firefighters Association. The Association conducts fundraisers assisted by civic groups and organizations to purchase equipment not provided for in the town appropriation.

The department currently owns the following vehicles:

- 1968 75' ladder truck with 1000 gpm pump;
- 1989 E-one pumper with 1000 gallon tank and 1500 gpm pump;
- 2001 Ford E450 heavy rescue;

- 2004 Ford F350 grass fire pickup with 225 gallon tank and cascade system;
- 2006 International pumper/tanker with 1800 gallon tank with 1250 gpm pump; and
- 2011 International 3050 gallon tanker with 500 gpm pump and portable 400 gpm pump.

The Firefighter Auxiliary is a separate organization providing community services (Breakfast with Santa Claus) and support to the department. Auxiliary members are usually on-site at major fires, dispensing coffee and sandwiches to the firefighters.

The Fire Services are considered adequate at this time.

### Ambulance Services

The Richford Ambulance Service is owned by the Town of Richford and managed by the Richford Health Center. The Ambulance Service maintains 24-hour, seven day a week continuous service. Richford Ambulance Service is an ALS certified service equipped with 2 ambulances. Both are equipped with advanced life saving devices and staffed by qualified emergency medical technicians.

The Town of Richford offers a subscription service for residents at \$50.00 per year per household. Each subscription provides 12 months of service with assurance that the household will not be billed for services beyond insurance coverage.

### Health Services

Richford Health Center, Inc. d/b/a Northern Tier Center for Health, (NOTCH), is a Federally Qualified Health Center (FQHC) that now serves the rural communities of Franklin and Grand Isle Counties in Vermont. Primary medical care, behavioral health counseling dental care, and pharmaceutical programs are provided within Richford. The nearest hospital is the Northwestern Medical Center in St. Albans, approximately 30 miles away.

### Education

The Richford Junior-Senior High School, which provides facilities for grades 6-12, is a 26,000 square foot building, located on a 20-acre site in the Special District owned by the Town School District. It was built in 1917 and renovated in 1997. Facilities include 19 classrooms, a library, study hall, shop, and gymnasium. The enrollment at Richford Junior-Senior High School over the past five years has basically stayed the same at 232 in the 2010-2011 school year and 230 in the 2016-2017 school year. Moderate fluctuations in enrollment are expected to continue. Enrollment is not expected to approach capacity (303 students) at least within the next five years.

Richford's elementary school, which provides facilities for grades K-5, is located just south of the Special District on Route 105 on a 65-acre site. Originally constructed in 1968, and expanded in 1989, the school is 27,360 square feet with 14 classrooms, several multi-purpose rooms, a library, gymnasium, health room, and kitchen. The school has the capacity for 300 students and current enrollment is 250, so capacity should be adequate for next five years and beyond. The facility currently meets all state educational requirements and provides space for community functions.

All students are bussed but there have been discussions on providing and improving sidewalks to allow some students to walk to school. The Town is looking into the Safe Routes to School Program to help fund some of these necessary improvements. Education is a life-long process and programs and opportunities exist in and around Richford from pre-school to college and technical training.

The Franklin County Early Childhood Programs (FCECP) is a collaborative early care and education program for young children (birth to school age) and their families operated by the public schools in the Franklin Central, Franklin Northeast and Franklin Northwest Supervisory Union School Districts. The FCECP primarily serves children who are developmentally at risk or developmentally delayed and their families. In addition, they provide a variety



of services to prepare children for public school kindergarten and ensure that public school kindergarten programs are prepared for young children with a variety of developmental needs.

A full range of vocational education is available to Richford residents at the Cold Hollow Career Center in Enosburg Falls. The Center offers various courses in Business, Agriculture, Construction Technology, Industrial Mechanics, and Adult Education.

Opportunities exist for higher education around the State of Vermont, although only one is located in Franklin County. The Community College of Vermont (CCV) offers classes in St. Albans. Other colleges in the area include Johnson State College, The University of Vermont, St. Michaels, and Champlain College.

## Childcare

Childcare can be a growing concern for existing and prospective working families, whether it means finding quality services or securing the costs of services. High quality, available childcare is a critical component supporting a stable workforce.

According to state data, Richford currently has 3 registered childcare homes and the Early Childhood Program at the Elementary School, with a total capacity considerably less than the 389 children from birth to age 14 living in Richford. Data on other options, such as siblings, stay at home parents, family care providers, un-registered childcare homes or other opportunities are not available. According to the “Stalled at the Start” Report by Let’s Grow Kids, 96% of infants and toddlers likely to need care in Franklin County do not have access to high quality programs and 65% of infants and 26% of toddlers don’t have access to any regulated (licensed by or registered with the state) programs.

## Recreation

A 15-acre playground is located in the recreation/conservation district (the Missisquoi River flood plain) off Intervale Avenue in the special district. Fields and courts are available for soccer, softball, baseball, and basketball. The playground is used by the Richford School District, Little League, Babe Ruth, and adult leagues.

The Elementary and High Schools also have a soccer field, basketball courts and tennis courts.

Memorial Park, on the corner of Main and Troy Streets, is a favorite summer spot for children and bikers and is used for seasonal community celebrations. It also boasts the restored Corliss Fountain and views of Jay Peak.

The future Missisquoi Park will consist of 8 acres of town owned land between Troy Street and the Missisquoi River. The new park is going to include a boat launch, new parking, and a trail extension. There are a vast number of other proposed uses for this park; most will have to be phased in over time. Working with the Selectboard and with NRPC, the Richford Economic Advancement Corporation has purchased land that will enable the park to connect onto Main Street.

The Davis Park on River Street also offers a respite to travelers. It is located on the banks of the Missisquoi River with benches set in shady spots for quiet resting. It offers a bandstand for summer concerts, a canoe launch, and an information kiosk.

In addition, Richford is part of the Missisquoi Valley Rail Trail, which connects St. Albans and Richford on a 26-mile trail suitable for biking, walking, running, horseback riding, snowmobiling, and cross-county skiing. The rolling terrain that makes up the trail passes through some of the most beautiful Vermont landscapes, including agricultural farmland and river valleys. There are plans to connect the trail to Missisquoi Park and Main Street and extend it on through to the Canadian border.

Perhaps the most easily accessible and underused recreational resource in Town is the Missisquoi River, which is available for fishing, canoeing, tubing, swimming, and nature walks. The Missisquoi River Basin Association was organized in the mid-1990s and provides a forum for all groups and individuals interested in promoting and protecting the river. The group organizes educational and recreational outings.

The Richford Country Club is a beautiful 186-acre, 9-hole golf course located just north of the Special District. Golf carts are available for rent, and meals and refreshments are available at the clubhouse. The course is well maintained and is well used by residents and visitors.

### Civic Groups and Organizations

There are several civic groups and organizations that serve the Richford community. Local groups and organizations are vital to the Town. They support educational, safety, and service organizations, and often support each other. Without the many dedicated members and volunteers working together through these organizations, many of the vital services and programs now in place would be unable to continue. **See Appendix B for a description of organizations that serve the Richford community.**

One particular group has been active in the Richford community over the past several years: The Richford Economic Advancement Corporation (REAC). REAC is a private non-profit, quasi-municipal organization formed in 1982 to promote economic and community development. Governed by a Board of Directors, REAC serves as a contact for commercial/industrial concerns and with local, regional, and state agencies and officials.

REAC, with support from the Northwest Regional Planning Commission and the Town, sponsored the Brownfields Area-Wide Assessment Project; an economic development strategic planning process that will provide market, environmental, and structural assessments for four sites in the Special District and position them for redevelopment. REAC also worked with the Selectboard to purchase 2 properties on Main Street in support of the creation of the riverfront park. The development of the park is ongoing and should be complete within the next few years.

## PUBLIC FACILITIES AND SERVICES GOALS AND POLICIES

**GENERAL GOAL: DEVELOP AND MAINTAIN A CAPITAL BUDGET AND PLAN FOR ALL PUBLICLY FUNDED UTILITIES, FACILITIES, AND SERVICES.**

**PUBLIC FACILITIES GOAL: RICHFORD SHALL SUPPORT AND MAINTAIN PUBLIC FACILITIES SUCH AS THE ARVIN A. BROWN PUBLIC LIBRARY, THE POST OFFICE, THE TOWN HALL, AND THE TOWN GARAGE.**

**POLICIES:**

- Support the promotion of library activities and services.
- Support continued maintenance, preservation, and public use of the Town Hall and its auditorium.
- Maintain Town Garage and equipment inventories to keep pace with Town growth.

**POLICE SERVICES GOAL: RICHFORD SHALL HAVE SUFFICIENT LAW ENFORCEMENT TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THE RESIDENTS AND VISITORS OF RICHFORD.**

**POLICIES:**

- Provide appropriate law enforcement to be provided within the means of the town taxpayers.
- Increase the use of security cameras throughout the town and encourage the reinstatement of the community watch program.

**FIRE PROTECTION GOAL: RICHFORD SHALL HAVE SUFFICIENT FIRE PROTECTION TO ENSURE THE HEALTH, SAFETY, AND WELFARE OF ITS RESIDENTS AND VISITORS.**

**POLICIES:**

- Train members of the fire department in the essential courses.
- Work with the Fire Marshall to enforce the Minimum Housing Standards Ordinance.
- Continue fundraising efforts to purchase equipment for fire services.
- Support the mutual aid arrangements with Richford's neighboring communities.

**AMBULANCE SERVICES GOAL: RICHFORD SHALL HAVE SUFFICIENT EMERGENCY SERVICES TO ENSURE THE HEALTH, SAFETY, AND WELFARE OF ITS RESIDENTS AND VISITORS.**

**POLICIES:**

- Assure proper and adequate training for all emergency service volunteers.
- Encourage participation in the subscription plan for individuals throughout Town.

**HEALTH SERVICES GOAL: RICHFORD SHALL GUARD, PROMOTE, PRESERVE AND RESTORE THE HEALTH OF PERSONS RESIDING IN THE GREATER RICHFORD AREA.**

**POLICIES:**

- Support the use and promotion of the health services for primary care and dental care.
- Support the enforcement of the Minimum Housing Codes as substandard housing contributes significantly to health problems in Richford.

- Support education regarding healthy lifestyles and prevention measures.
- Support Summer Day Camp as a means of providing inspiring activities that develop strong bodies and foster a healthy mind in children.
- Continue to coordinate with rescue services to provide emergency care.

**EDUCATION GOAL: RICHFORD SHALL BROADEN ACCESS TO EDUCATIONAL AND VOCATIONAL TRAINING OPPORTUNITIES SUFFICIENT TO ENSURE THE FULL REALIZATION OF THE ABILITIES OF ALL VERMONTERS.**

**POLICIES:**

- Support the efforts of the School District to provide the best educational facilities that the community can afford.
- Encourage, appropriate public use of educational facilities.
- Support the school district's effort to join the Safe Routes to School Program in order to create other options for access to the education facilities.

**CHILDCARE GOAL: RICHFORD SHALL ENCOURAGE AND SUPPORT LICENSED OR REGISTERED CHILDCARE FACILITIES AND CENTERS THAT ARE SAFE, AFFORDABLE, AND HIGH QUALITY.**

**POLICIES:**

- Ensure the availability of safe and affordable child care.
- Integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers, and child care work force development.

**RECREATION GOAL: RICHFORD SHALL MAINTAIN AND ENHANCE RECREATIONAL OPPORTUNITIES FOR RICHFORD RESIDENTS AND VISITORS.**

**POLICIES:**

- Encourage improvements, including signage for existing recreational facilities.
- Investigate the feasibility of improved access to the Missisquoi River.
- Protect prime recreational resources from incompatible land uses to preserve scenic qualities (including agricultural land, woodland, riverbanks, shorelines, and ridge and mountain tops).
- Prohibit future development from limiting public access to recreational lands and waters.
- Provide recreational opportunities for the handicapped and elderly
- Support after school opportunities and activities.
- Support efforts to use state funds to develop a location for a Visitor's Center to welcome families and provide local information.

**CIVIC GROUPS AND ORGANIZATIONS GOAL: TO HAVE AN ACTIVE AND HEALTHY CIVIC COMMUNITY WHERE RESIDENTS HAVE THE OPPORTUNITY TO PARTICIPATE AND CONTRIBUTE TO THE FUTURE OF RICHFORD.**

**POLICIES:**

- Support the efforts of the formal and ad-hoc community organizations to provide for development, recreation, service, and community improvement opportunities in the Town of Richford.

## CHAPTER 7: ENERGY PLAN

### Enhanced Energy Plan

The intent of this section is to meet the municipal determination standards for enhanced energy planning enabled in 24 V.S.A. 4352. The purpose of enhanced energy planning is to further regional and state energy goals, including the goal of having 90% of energy used in Vermont come from renewable sources by 2050 (90 x 50 goal), and the following:

- A. *Vermont's greenhouse gas reduction goals under 10 V.S.A. § 578(a);*
- B. *Vermont's 25 by 25 goal for renewable energy under 10 V.S.A. § 580;*
- C. *Vermont's building efficiency goals under 10 V.S.A. § 581;*
- D. *State energy policy under 30 V.S.A. § 202a and the recommendations for regional and municipal energy planning pertaining to the efficient use of energy and the siting and development of renewable energy resources contained in the State energy plans adopted pursuant to 30 V.S.A. §§ 202 and 202b (State energy plans); and*
- E. *the distributed renewable generation and energy transformation categories of resources to meet the requirements of the Renewable Energy Standard under 30 V.S.A. §§ 8004 and 8005.*

A positive determination of compliance with the requirements of enhanced energy planning, as provided by the Regional Planning Commission, will enable Richford to achieve “substantial deference” instead of “due consideration” in Section 248 applications for energy generation facilities (ex. wind facilities, solar facilities, hydro facilities, etc.) under Criteria (b)(1)-Orderly Development. In short, this means that Richford will have a greater “say” in Certificate of Public Good proceedings before the Vermont Public Service Board about where these facilities should or should not be located in the community.

To receive a positive determination of energy compliance, an enhanced energy plan must be duly adopted, regionally approved and must contain the following information:

- A. An analysis of current energy resources, needs, scarcities, costs, and problems.
- B. Targets for future energy use and generation.
- C. “Pathways,” or implementation actions, to help the municipality achieve the established targets.
- D. Mapping to help guide the conversation about the siting of renewables.

This chapter will include the required analysis, targets, and mapping. The “pathways,” or actions, have been included in the implementation section of the municipal plan.

### Energy Resources, Needs, Scarcities, Costs and Problems

The following subsection reviews each energy sector of energy use (thermal, transportation, electricity) and generation in Richford.

#### Thermal Energy

An estimate of current residential thermal energy demand in Richford, based on data from the American Community Survey (2011-2015), is shown in Table 7.1. The data shows that the majority of residences in Richford depend on fuel oil for home heating. Fuel oil and wood sources are estimated to heat approximately 86% of homes in Richford.

<b>Fuel Source</b>	<b>Richford Households (ACS 2011-2015)</b>	<b>Richford % of Households</b>	<b>Richford - Households Square Footage Heated</b>	<b>Municipal BTU (in Billions)</b>
Natural Gas	2	0.2%	3,808	0
Propane	61	6.7%	109,808	7
Electricity	58	6.4%	75,936	5
Fuel Oil	571	62.7%	984,400	59
Coal	0	0.0%	0	0
Wood	215	23.6%	409,360	25
Solar	0	0.0%	0	0
Other	3	0.3%	5,712	0
No Fuel	0	0.0%	0	0
<b>Total</b>	<b>910</b>	<b>100.0%</b>	<b>1,589,024</b>	<b>95</b>

Estimates for commercial and industrial thermal energy use are more difficult to calculate. An estimate of total commercial energy use (thermal and electricity) is provided in Table 7.2. Based on data from the Vermont Department of Labor (VT DOL) and the Vermont Department of Public Service (VT DPS). According to NRPC, it is assumed that the majority of this energy use, 22 billion BTU per year, is likely to be for thermal energy needs.

	<b>Commercial Establishments in Richford (VT DOL)</b>	<b>Estimated Thermal Energy BTUs per Commercial Establishment (in Billions) (VT DPS)</b>	<b>Estimated Thermal Energy BTUs by Commercial Establishments in Richford (in Billions)</b>
Municipal Commercial Energy Use	30	0.725	22

Richford does not have access to natural gas. The nearest natural gas distribution system is located in Enosburg Falls. It is not anticipated that this system will be extended to Richford.

### Electricity Use

An estimate of current electricity use in Richford is shown in Table 7.3. In 2016, homes and businesses in Richford used about 19.3 million kWh of electricity. This is a decrease in use from 2015 (19.5 million kWh), but slightly higher than total electricity use in 2014 (18.9 million kWh). In 2016, average residential electricity use equaled 6,913 kWh of electricity per year. This is lower than the regional average of 7,038 kWh of electricity. Vermont Electric Coop is the electricity utility that serves the entire Town of Richford.

<b>Use Sector</b>	<b>Current Electricity Use in Richford - 2016 (Efficiency Vermont)</b>
Residential (kWh)	11,966,133
Commercial and Industrial (kWh)	7,389,635
<b>Total (kWh)</b>	<b>19,355,768</b>

<b>Transportation Data</b>	<b>Municipal Data</b>
Total # of Passenger Vehicles (ACS 2011-2015)	1,549
Average Miles per Vehicle (VTrans)	11,356
Total Miles Traveled	17,590,444
Realized MPG (2013 - VTrans 2015 Energy Profile)	18.6
<b>Total Gallons Use per Year</b>	945,723
<b>Transportation BTUs (Billion)</b>	114
Average Cost per Gallon of Gasoline in 2016 (NRPC)	\$2.31
<b>Gasoline Cost per Year</b>	2,184,620

#### Transportation

Table 7.4 contains an estimate of transportation energy use in Richford. It's estimated that Richford residents drive approximately 17.5 million miles per year and spend about \$2.1 million on transportation fuel expenses a year. These expenses do not include vehicles owned and used commercially.

As of January 2016, data from the Vermont Department of Motor Vehicles notes that there are between 1 and 4 electric vehicles within the Richford zip code (which includes Troy, VT).

#### Generation

There is currently .15 MW of electricity generation capacity from renewable generation facilities in Richford. This capacity results in approximately 188.56 MWh of electricity generation per year. This is roughly equal to the annual electricity use of about 28 single family homes in Vermont.

Table 7.5 organizes information about existing generation in Richford by type of facility. Map D.3 in Appendix D shows the

location of all electricity generators with a capacity greater than 15 kW.

The Town generally has good access to electricity transmission lines and three-phase distribution lines. These types of lines are used to transmit large quantities of electricity and are needed to serve large industrial users and commercial centers. Access to this type of infrastructure may make development of renewable energy facilities easier and more cost-effective in than in other surrounding communities with less existing grid infrastructure. Map D.2 in Appendix D shows the electricity transmission and three-phase distribution infrastructure in Richford. Access to renewable generation resources, such as solar and wind, will be addressed below in the mapping section.

#### Targets for Use and Generation

Northwest Regional Planning Commission worked with the Vermont Energy Investment Corporation (VEIC) and the

<b>Generation Type</b>	<b>MW</b>	<b>MWh</b>
Solar	0.13	159.43
Wind	0.01	29.13
Hydro	0.00	0.00
Biomass	0.00	0.00
Other	0.00	0.00
<b>Total Existing Generation</b>	<b>0.14</b>	<b>188.56</b>

Vermont Department of Public Service in 2016 to develop regional targets for future energy use and generation. The intent of these targets is to meet the State of Vermont’s 90 x 50 goal. The targets represent one scenario of what meeting this goal may look like, but it should be kept in mind that there may be many different ways for Vermont to achieve the 90 x 50 goal. For more information about the regional targets, please see the Northwest Regional Energy Plan ([www.nrpcvt.com](http://www.nrpcvt.com)).

Tables 7.6, 7.7 and 7.8 show the targets for future energy use for Richford by sector (totals are cumulative).

The thermal targets for Richford in 2050 is to have 88% of structures to be heated by renewable sources. Much of this transition is likely to come in the form of electric heat pumps as the primary heating source for single family homes as the technology becomes more readily available and affordable. The target also relies on wood heating being a continued source of residential heating. There are also high targets for the weatherization of residential households and commercial structures (78% and 73% respectively in 2050).

<b>Table 7.6 - Thermal Targets</b>			
<b>Thermal Targets</b>	<b>2025</b>	<b>2035</b>	<b>2050</b>
Percent of Total Heating Energy From Renewable Sources - Heating (BTUs)	46.0%	59.5%	87.5%
New Efficient Wood Heat Systems (in units)	0	0	2
New Heat Pumps (in units)	109	249	465
Percentage of municipal households to be weatherized	5%	16%	78%
Percentage of commercial establishments to be weatherized	25%	25%	73%

The transportation energy targets for Richford are similarly ambitious. By 2050, almost 90% of transportation energy will need to come from renewable sources. This will primarily be done through conversion to electric vehicles from fossil fuel vehicles for light-duty, passenger vehicles. However, it will also mean conversion of heavy-duty vehicles from diesel to biodiesel sources. The biodiesel technology and infrastructure will certainly need to advance and evolve in order to meet this target.

<b>Table 7.7 - Transportation Targets</b>			
<b>Transportation Targets</b>	<b>2025</b>	<b>2035</b>	<b>2050</b>
Percent of Total Transportation Energy from Renewable Sources - Transportation (BTUs)	8.4%	29.4%	89.6%
Electric Vehicles	136	1015	2414
Biodiesel Vehicles	196	389	748

Targets for electricity use are more complex to interpret. Electricity use is targeted to double by 2050 (Table 7.8). This will likely be driven by conversions to electric heat pumps and electric vehicles. These consumer changes will cause electricity use to grow. At the same time, total energy use (energy, not electricity) will become more efficient. This is because electric cars and electric heating sources are more efficient than using other energy sources, such as fossil fuels.

<b>Table 7.8 - Electricity Targets</b>			
<b>Electricity Targets</b>	<b>2025</b>	<b>2035</b>	<b>2050</b>
Increase Efficiency and Conservation (BTUs)	25.2%	48.3%	100.7%



Table 7.9 shows the generation targets for Richford in 2025, 2035, and 2050. These generation targets are disaggregated from the regional generation targets. All new wind, solar, hydro, and biomass electricity generation sites will further progress towards achieving the MWh targets. Given the lack of existing hydro sites in Richford and the constraints upon wind development, it is likely that solar generation will need to be a substantial component of meeting these generation targets. Meeting the generation targets will take considerable effort over the next 30 to 35 years. The 2050 generation target (12,958.06 MWh) is about 68 times the current generation capacity (188.56 MWh) within the Town of Richford.

<b>Table 7.9 – Generation Targets</b>			
<b>Renewable Generation Targets</b>	<b>2025</b>	<b>2035</b>	<b>2050</b>
Total Renewable Generation Target (in MWh)	4,276.16	8,552.32	12,958.06

Richford has sufficient land to meet the above generation targets. Based on mapping and calculations completed by NRPC, Richford has access to the generation capacity outlined in Table 7.10. This generation capacity was calculated using the “base” layers for solar and wind. For an explanation of what constitutes a “base” layer, please see the mapping subsection below.

<b>Table 7.10 - Renewable Generation Potential</b>		
<b>Resource</b>	<b>MW</b>	<b>MWh</b>
Rooftop Solar	1	1,300
Ground-mounted Solar	406	497,515
Wind	133	408,499
Hydro	0	0
Biomass and Methane	0	0
Other	0	0
<b>Total Renewable Generation Potential</b>	<b>540</b>	<b>907,314</b>

Richford currently supports NRPC’s position regarding “commercial” and “industrial” wind facilities. The NRPC Regional Plan finds that the construction of new “industrial” or “commercial” wind facilities within the region does not conform to the Regional Plan (NRPC considers any wind facility with a tower height (excluding blades) in excess of 100 feet tall to be considered an “industrial” or “commercial” wind facility). However, Richford does remain open to working with NRPC and adjacent communities in the future if an appropriate location for a “industrial” or “commercial” wind is identified.

Energy potential from biomass and methane sources is not estimated. This is due to a variety of factors including insufficient information on which to create estimates. Richford encourages the use of these sources for electricity and thermal generation, especially on farms.

### Mapping Energy Resources and Constraints

Richford has incorporated maps provided to them by NRPC. These maps show data as required by the Department of Public Service Determination Standards, including access to energy resources and constraints to renewable development, and are a required element of enhanced energy planning. All maps may be found in Appendix D.

The intent of the maps is to generally show those areas that may be good locations, or may be inappropriate locations, for future renewable generation facilities. However, it is important to note that the maps are a planning tool and do not precisely indicate locations where siting a facility is acceptable. When a generation facility is proposed, the presence of all natural resources on site shall be verified as a part of the application.

### Mapping Methodology

Spatial data showing the location of energy resources formed the basis of the maps developed by NRPC. This is the data that shows where there is solar, wind, hydro, and biomass “potential.”

“Known” and “possible” constraints were subsequently identified on the maps. Known constraints are conservation resources that shall be protected from all future development of renewable generation facilities. Possible constraints are conservation resources that shall be protected, to some extent, from the development of renewable generation facilities. The presence of possible constraints on land does not necessarily impede the siting of renewable generation facilities on a site. Siting in these locations could occur if impacts to the affected possible constraints are mitigated, preferably on-site.

A full list of known and possible constraints included on the maps is located in Table D.1 in Appendix D. The known constraints and possible constraints used to create the maps include constraints that are required per the State Determination Standards from the Department of Public Service and constraints that were selected by NRPC.

### Solar and Wind

The solar and wind maps show both “base” and “prime” areas. Base areas are areas with generation potential, yet may contain possible constraints. Prime areas are areas that have generation potential that do not contain known or possible constraints. Areas that do not contain generation potential, and areas that contain a known constraint, are shown as white space on the map.

Richford has identified the following preferred locations for solar generation facilities: rooftops, parking lots, and landfills. Brownfield sites located outside of the village are also considered preferred locations.

### Hydro and Biomass

The biomass map is somewhat similar to the solar and wind maps. The biomass map also displays “base” and “prime” areas. However, these categories are not necessarily indicative of generation. They instead indicate areas of contiguous forest that may be used for the harvesting of woody biomass for use in either thermal or electric generation.

The hydro map is unique from the other types of generation maps. It shows existing dam sites used for electricity generation. It also shows existing dam sites that are not used for electricity generation, but could be retrofitted to provide generation capacity. Data about these dams comes from a study commissioned by the Vermont Agency of Natural Resources. The hydro map also shows some known and possible constraints that could impact the redevelopment of some dam sites. Richford does not have any existing dams.

### Conclusion

Achieving the 90 x 50 goal, and the other energy goals in state statute, will be difficult. Richford is committed to playing its part in working towards accomplishing these goals and in creating a more sustainable, less costly, and more secure energy future.

## ENERGY PLAN GOALS AND POLICIES

### **GOALS:**

**RICHFORD WILL PLAN FOR INCREASED ELECTRIC DEMAND WITH THE SUPPORT OF VERMONT ELECTRIC COOP AND EFFICIENCY VERMONT.**

**RICHFORD WILL STRIVE TO REDUCE ANNUAL FUEL NEEDS AND FUEL COSTS FOR HEATING STRUCTURES, TO FOSTER THE TRANSITION FROM NON-RENEWABLE FUEL SOURCES TO RENEWABLE FUEL SOURCES, AND TO MAXIMIZE THE WETHERIZATION OF RESIDENTIAL HOUSEHOLDS AND COMMERCIAL ESTABLISHMENTS.**

**RICHFORD WILL STRIVE TO HOLD VEHICLES MILES TRAVELED PER CAPITA TO 2011 LEVELS THROUGH REDUCING THE AMOUNT OF SINGLE OCCUPANCY (SOV) COMMUTE TRIPS, INCREASEING THE AMOUNT OF PEDESTRIAN AND BICYCLE COMMUTE TRIPS, AND INCREASING PUBLIC TRANSIT RIDERSHIP.**

**RICHFORD WILL FOCUS GROWTH WITHIN AND ADJACENT TO THE VILLAGE.**

### **POLICIES:**

- Richford supports energy conservation efforts and the efficient use of energy across all sectors.
- Richford supports the reduction of transportation energy demand, reduction of single-occupancy vehicle use, and the transition to renewable and lower-emission energy sources for transportation.
- Richford supports patterns and densities of concentrated development that result in the conservation of energy. This includes support of public transit connections from Richford to other parts of the region and considering access to public transit when reviewing Act 250 applications.
- Richford supports the development and siting of renewable energy resources in the Town that are in conformance with the goals, strategies, and mapping outlined in this plan. Development of generation in identified preferred locations shall be favored over the development of other sites.
- Richford supports the conversion of fossil fuel heating to advanced wood heating systems or electric heat pumps.
- Support local farms and local food system.

### **IMPLEMENTATION ACTIONS:**

- Richford will coordinate with Efficiency Vermont and state low-income weatherization programs to encourage residents to participate in weatherization programs available to Richford residents.
- Richford will promote the use of the residential and commercial building energy standards by distributing code information to permit applicants.
- Richford will investigate a revision to the zoning bylaw that would incentivize compliance with the state's stretch code, or similarly high environmental standard, through the issuance of a bonus density.
- Richford will conduct an energy audit of municipal buildings to identify weatherization retrofits and incorporate the recommendations into the municipal capital budget.
- Richford will work to identify areas that may be appropriate for a wood-fired district heating facility.
- Richford will promote and provide information about the GoVermont website which provides information citizens about ride share, vanpool, and park-and-ride options.
- Richford will work with Green Mountain Transit to review current public transit routes to Richford. Determine ways that service to Richford could be improved.
- Richford will review municipal road standards to ensure that they reflect the "complete streets" principles.

- Richford will review local policies and ordinances to limit water and sewer services to those areas of town where additional development will not contribute to sprawl.
- Richford will investigate the installation of a municipal solar and/or wind net-metering facilities to off-set municipal electric use.
- Richford will investigate installation of a community-based renewable energy project.
- Richford will work with the Fire Department will provide firefighters with training in fighting fires on structures what have solar installed.

## CHAPTER 8: TRANSPORTATION

Two State highways, a network of local roads, and one railroad provide important transportation routes in the Town of Richford. The nearest airports for passenger service are in Burlington and Montreal, though a limited amount of nonscheduled passenger and freight service is available at the Franklin County State Airport in Highgate.

### Roads

Route 105 south and east from Richford provide access to Interstates 89 and 91 but by far, Richford’s primary transportation needs are met by the local road system. The total mileage of the town’s road system is 71.797 miles, comprised of the road classifications according to the Vermont Agency of Transportation seen on Figure #8.1 and Figure #8.2.

The Town Selectboard’s Road Policy specifies the requirements for upgrading present roads, admitting new roads to the town system, and for driveway standards to ensure safe access onto public roads. Richford’s roads are well maintained. Between 11-25% of the Town of Richford’s annual expenditures are on roads.

The Town of Richford continues to be an active participant on Northwest Regional Planning Commission’s Transportation Advisory Committee (TAC). This committee provides greater local input into transportation planning.

The historic iron Main Street Bridge is located at the intersection of North Main Street and River Street, which faces and is flanked by three commercial buildings. This is a major truck route for Kent Nutritionals and Kaytec, Inc., as well as for the distributors supplying area businesses. Though the turning radius is tight and the sight lines are short, a local ordinance for a 4-way stop has helped control traffic at this intersection. The Bridge received a new deck in late fall of 2010; the Town’s portion of the cost was paid for with state Historic Preservation Funding.

A number of Richford residents must commute to their places of employment, but because of the diversity of their destinations, Carpooling is difficult (12.6% of workforce in 2015, see Table #8.1). The majority of commuters in Richford (77.3%) traveled to their place of work by car alone.

### Parking

Public parking is available within the village district in municipal and privately owned lots. These facilities are not used to the fullest extent possible. Improvements to the lots and appropriate signage could encourage increased use of these facilities. The Town is hoping to conduct a parking feasibility study in the next few years.

<b>Figure # 8.1 Town Roads</b>	
Class 1	4.801 miles
Class 2	8.62 miles
Class 3	44.94 miles
Class 4	2.8 miles
Total	71.797 miles

<b>Figure # 8.2 State Routes</b>	
VT 105	8.837 miles
VT 105A	1.799 miles
Total	10.636 miles

## Public Transit

Green Mountain Transit (GMT) operates a bus service from Richford to St. Albans. The Richford to St. Albans route is a fixed, once-a-day route to get people from home to work and back. According to the 2011-2015 American Community Survey, only 0.3 percent of Richford’s workforce takes the bus to work (see Table #8.1) and recently, this route has been in high demand. Residents have been pushing for a second route to be implemented and would also like a bus shelter to be created to keep people out of the elements. GMT also provides Medicaid Transportation and Elderly and Disabled Transportation in Richford.

## Railroad

The Canadian National Railroad enters the United States at East Richford and then swings north, just east of the Richford Village district, back into Canada. The railroad has major switching and siding facilities, which serve Kent Nutritionals and Kaytec.

## Bicycle and Pedestrian Travel

Sidewalks are present on Main Street, River Street, Troy Street, Province Street, and Eastern Avenue. The former Central Vermont Railroad has been abandoned, and the rail bed has been purchased by the State of Vermont for use as a recreation trail. That trail is the Missisquoi Valley Rail Trail, which is a 26-mile long multi-use bike and pedestrian trail on the old rail bed connecting Richford to St. Albans. During the winter months the trail is accessible to snowmobiles and cross-country skiers.

Table #8.3 Means of Transportation to Work		
	# of People	Percentage
Total:	996	100.0%
Car, truck, or van:	895	89.9%
>Drove alone	770	77.3%
>Carpooled:	125	12.6%
-In 2-person carpool	72	7.2%
-In 3-person carpool	34	3.4%
-In 4-or-more-person carpool	19	1.9%
Public transportation	3	0.3%
>Bus	3	0.3%
Bicycle	0	0.0%
Walked	34	3.4%
Taxicab, motorcycle, or other means	11	1.1%
Worked at home	53	5.3%
Source: American Community Survey 2011-2015		

## TRANSPORTATION GOALS AND POLICIES

**GOALS: TO PROVIDE AND MAINTAIN A SAFE, CONVENIENT, ECONOMICAL, AND ENERGY EFFICIENT TRANSPORTATION SYSTEM THAT INCLUDES PUBLIC TRANSIT OPTIONS, PATHS FOR PEDESTRIANS AND BICYCLISTS, AND RESPECTS THE INTEGRITY OF THE NATURAL ENVIRONMENT.**

### **POLICIES:**

- Create a GMTA circulator bus route for the Richford Village area and a formal bus shelter in the village.
- Adhere to the adopted Road Policy for acceptance of new roads into the town system.
- Have a local representative on the Regional TAC to facilitate transportation plans and policies that are in the best interest of the region and the Town of Richford.
- Extend the Missisquoi Valley Rail Trail to the Canadian border.
- Maintain adequate vehicular and bicycle parking to support tourism and commercial activity in Richford.
- Follow rules for access management in the zoning bylaw in order to limit the number of curb cuts to alleviate potential conflicts with traffic flow and with bicycle and pedestrian traffic.
- Focus repair and construction of bicycle and pedestrian infrastructure within the Village, with possible collaboration with the school district through the Safe Routes to School Program.

## CHAPTER 9: ECONOMY

### Overview

An improved economy is key to improving the quality of life in Richford. Jobs and higher salaries will raise the standard of living, allowing investment in improved housing, services, and leisure. Retail businesses locate where there are people with money to spend and manufacturing is located where the local labor force has the necessary skills. The future economy of Richford must be one where resources are used sustainably, local strengths are built upon, and all residents can achieve success.

### How Economics Relates to Other Chapters

A healthy economy is dependent upon many factors, including a healthy population and sustainable resources. Businesses need infrastructure such as affordable electricity, access to efficient transportation systems, and high-tech infrastructure to support growth, as well as an available housing stock that is not blighted and deteriorating. Where a business locates within a town may depend on such things as the location of three-phase power, the availability of sewer and water hookups, and housing and building stock quality and quantity.

In rural communities such as Richford, economies are tied to the natural resources available in the region. Economic success in Richford's past resulted from timber extraction and, with proper management, some of that former glory can be regained; this time in a sustainable manner, especially with education and training of the work force to offer greater opportunities for advancement and achievement.

### Developing a Strong and Diverse Economy

The Town of Richford currently has a diverse economy and is looking to expand further in the coming years. Some of the sectors are in good condition while others have been in decline over the past two decades. The six sectors of Richford's economy are agriculture (farm and forestry), manufacturing, government, retail, tourism, and information technologies. While some of these sectors have been in Richford for many years, others are only now getting started. Richford is interested in adopting policies that will help local businesses to grow.

As Richford is a border community with three crossings into Canada, it has become the location for many government facilities including customs and border stations. These positions are an important source of well-paying jobs and every effort should be made to ensure they are not relocated to another community.

The commercial and retail sectors in Richford have been struggling in recent years. One positive point to future development is that there is a great deal of through traffic. Many truckers and travelers pass through Richford on their way to Canada giving exposure to businesses along the route. The biggest weakness facing the business community is Richford's image.

The tourism and information technology sectors in Richford are in their infancy. The town is actively exploring ways to bring these types of businesses and jobs to the town. The town's assets – both natural and technological – make these two sectors logical areas to seek new opportunities.

Natural assets suggest Richford could expand tourism. The miles of forested hills, proximity to Jay Peak Resort, the Missisquoi Valley Rail Trail, the Northern Forest Canoe Trail, the Long Trail, and the Missisquoi River make Richford an outdoor enthusiast's dream. Visitors to Richford in the summer have easy access to canoeing, fishing, mountain biking, and hiking opportunities. In the winter, guests can go cross-country and downhill skiing, snowmobiling, and hunting. These assets should be capitalized upon.

## Earning a Livable Wage

Many families and individuals find it difficult to earn livable wages in Richford and the unemployment rate is high. It can be seen in Table #9.1 that situations are improving in Richford; however, rates are still high, especially in the winter months.

<b>Table #9.1 Richford Unemployment Rate (%)</b>				
<b>Quarter Averages</b>				
	<b>1<sup>st</sup> qtr</b>	<b>2<sup>nd</sup> qtr</b>	<b>3<sup>rd</sup> qtr</b>	<b>4<sup>th</sup> qtr</b>
<b>2002</b>	9	5.3	4.6	6.9
<b>2003</b>	12.5	7.5	4.1	6.4
<b>2004</b>	9.3	5.8	5.3	6.9
<b>2005</b>	10	5.5	3.7	6
<b>2006</b>	9	5.1	5.1	8.1
<b>2007</b>	11.3	6.6	4.6	6.7
<b>2008</b>	9.6	6.3	6.3	8.0
<b>2009</b>	13.5	11.7	10.4	10.0
<b>2010</b>	12.7	9.0	8.1	11.4
<b>2011</b>	12.7	9.4	7.8	8.5
<b>2012</b>	9.9	8.1	7	7.8
<b>2013</b>	9	6.7	6.7	6.9
<b>2014</b>	8.9	6.1	6.1	5.7
<b>2015</b>	8.3	5.3	5.3	4.5
<b>2016</b>	7.5	4	4.5	4.5
Source: Vermont Department of Labor, Economic & Labor Market Information				

Richford does have some livable wage positions in town; however, more are needed. The town should work to attract businesses that will employ persons at livable salaries. Manufacturing, high tech, government, and education careers all generally have the potential for good wages. Tourism has been singled out by the Economic Development Council of Northern Vermont as a fast growing field that could provide job growth, however, many of these jobs do not provide livable wages.

### Building and Maintaining Status as an Economic and Commercial Center

Because of the availability of municipal services within its boundaries, the Special District is still the commercial hub of Richford, (with industrial development located primarily outside of the district). Unfortunately, commercial activity is limited and does not meet all of the daily needs of residents.

The Richford Planning Commission applied for and received Village Center Designation, to focus redevelopment efforts in an area containing most of the major public and commercial buildings in the downtown. Richford Village Center Designation was approved by the Vermont Downtown Development Board on September 26, 2005. The designated Village Center includes the Richford Town Hall, A.A. Brown Public Library, U.S. Post Office, Richford Health Center, Emergency Services Building, Richford Historical Society, and the bank and other major commercial buildings on Main and River Streets. The downtown historic district is entirely within the Village Center. A map of the Designated Village Center may be found on Zoning Map #2 at the end of this document.

Properties in the Village Center are eligible for tax credits and other assistance from state agencies for improvements that are needed to meet building codes or preserve historic structures. The designation allows for a community to receive priority consideration for state grants, including HUD grants, Community Development Block Grants (CDBGs), and Municipal Planning Grants (MPGs); makes it eligible for tax credits, including historic credits, façade improvement credits, and code improvement credits; gives it priority consideration for state building and general services when leasing or constructing buildings, and allows a special assessment district within the Village Center to use funds for operating costs. These benefits will provide substantial support to property owners who invest in the revitalization of the Designated Village Center.

With the assistance of Northwest Regional Planning Commission (NRPC) and the Richford Economic Advancement Corporation (REAC), Richford obtained a Brownfields Assessment Grant from the Environmental Protection Agency (EPA) to complete an Area Wide Plan in 2013. The Area Wide Plan, prepared by Stone Environmental,



identified the environmental, infrastructural, and structural conditions that would significantly impact redevelopment on four brownfield properties within the Village Center. The plan also identified the desire to develop a park at 111-113 Main Street. This finding in the area wide plan has led directly to the development of the park which has been funded through NRPC's revolving loan fund. Construction of the park is ongoing.

The 23-acre industrial park on Route 105 is currently built out. Kaytec is located in the park and is providing 60-75 jobs for both residents and non-residents. The Town evaluated several sites for possible future industrial development and two sites were recommended. Fairview Commons, a commercial park in the Special District, was established in 1990 although no development has occurred to date.

Richford strives to be an employment center for eastern Franklin County. Jobs located in Richford will help avoid the need for residents to commute to St Albans or Burlington. In 2015, Richford had 927 workers living in town. Of these, 94 worked in Richford while the remaining left for other towns for employment. At the same time, 367 persons from other towns came to Richford for work (See Tables #2.7 and #2.8 in Chapter 2 for more data on commutes to and from Richford). Therefore, there were 560 (60%) fewer jobs than workers, indicating that Richford is currently more of a bedroom community than a job center. However, it is helpful to note that Richford had the highest percentage of persons working in the town who live in Franklin County.

### Maintaining High Environmental Standards

History has taught Richford the lesson of utilizing resources sustainably. Any resource-based industry should not grow to the point where resources are extracted faster than they are replenished. Although Richford has an industrial past, serious air and water pollution has not been a problem. Having businesses and industries that follow the ethic of not polluting is an important goal.

While Richford does not want to discourage industry from locating in town, they will expect businesses to locate and act responsibly. Industries that release pollutants into water and air must meet all state and federal standards and should not degrade or endanger either resource. Environmental standards and economic growth need not be at odds with each other. Richford is committed to ensuring future economic growth while maintaining environmental quality.

### Programs and Organizations

The Northern Vermont Economic Development District (NVEDD) is an organization composed of the Regional Development Corporation in northern Vermont and Northwest Regional Planning Commission. NVEDD writes grant proposals to the Federal Economic Development Administration (EDA) for funds to be used for economic development projects and feasibility studies.

The Vermont Community Loan Fund also provides capital for businesses and non-profit organizations within the District. Franklin County Industrial Development Corporation markets industrial sites and provides technical assistance to area businesses.

Workforce education and training is provided in towns around Richford. Technical and adult education providers include Cold Hollow Career Center in Enosburg Falls. The Vermont Department of Employment and Training, P.A.T.H., and the Department of Vocational Rehabilitation and Employee Assistance Services are active members of the Workforce Investment Board.

## Conclusions

Although unemployment is high and blighted buildings persist in the Designated Village Center, important progress has been made. The Special District has all of the infrastructure needed to accommodate industrial and commercial expansion, including high speed internet. The blighted Sweat-Comings Building in the Designated Village Center has been redeveloped and other buildings in the area are preparing for rehabilitation. A new state-of-the-art border patrol building has recently been constructed on Route 105 in Richford and the border inspection station on Pinnacle Road has been enlarged. With all Richford has going for it, it is only a matter of time before businesses and developers take advantage of the opportunities present.

## ECONOMIC GOALS AND POLICIES

**GOALS: THAT RICHFORD HAS A STABLE AND DIVERSE ECONOMY THAT PROVIDES SATISFYING AND REWARDING JOB OPPORTUNITIES AT A LIVABLE WAGE.**

**THAT THE VILLAGE DISTRICT IN RICHFORD IS AN EMPLOYMENT AND COMMERCIAL CENTER FOR EASTERN FRANKLIN COUNTY.**

**THAT BUSINESSES AND INDUSTRIES IN RICHFORD WILL MAINTAIN HIGH ENVIRONMENTAL STANDARDS.**

### **POLICIES:**

- Focus municipal economic development efforts on tourism, technology, and forest industries, including efforts to expand value added manufacturing.
- Prioritize the retention of government jobs .
- Support existing businesses and attract new businesses that provide jobs at livable wages and utilize the skills of the local labor market.
- Decrease property tax rates to attract business by retiring existing municipal debts and increasing the Grand List.
- Discourage strip commercial development along highways and ensure that the zoning bylaws include rules that require that commercial and industrial development be well designed and attractive.
- Industrial development should be planned in industrial park areas which are served by necessary facilities including sewer, water and transportation.
- Commercial development should be located within the Special District to be convenient to employees and to take advantage of the existing infrastructure.
- Remove or rehabilitate blighted buildings to improve the image and perception of the Special District.
- Remain a Designated Village Center to improve the ability to attract residents and businesses by enhancing livability and promoting the Village's unique sense of place.
- Support property owners' application for tax credits and other assistance from state agencies that are needed to update structures to meet building codes and to preserve historic structures.
- Enhance police presence in order to decrease petty crimes which detract from the Designated Village Center.

## CHAPTER 10: NATURAL RESOURCES

### Overview

It is important to wisely use natural resources. Natural resources have been historically important to the town's economy and heritage. By examining these resources, we can better understand current social and economic conditions and patterns of development.

This section is an inventory of Richford's natural resources, including climate, topography, water resources, woodlands, wetlands, floodplains, and fish and wildlife resources. This information will enable residents of Richford to develop a better understanding of the town's natural resource base and develop a land use policy.

### Climate and Air Quality

**Climate:** Richford's weather and climate is influenced by local physiographic features. Mean annual precipitation increases and average temperature drops as you move from the Missisquoi River Valley up towards the Green Mountains in the east and southeast part of Richford.

The average temperature in Richford varies from 69.4 degrees Fahrenheit in July to 26 degrees in January. Normal daily maximums during the same period ranged from a high of 81 degrees during July to a low of 7 degrees in January. The average annual precipitation for Richford is 41.8 inches and the average snowfall is 77 inches. Greater amounts of precipitation fall at higher elevations, such as located in the southeast of Richford.

Richford's climate is considered in the planning process since climatic elements affect soil erosion, air quality, road conditions, cost of heating, agricultural and forestry pursuits, and in the design of buildings, roads, and other facilities. The growing season of Richford, between 110 and 120 days, is up to 50 days shorter than in the Champlain Valley, which influences what crops may be grown

**Air Quality:** Specific pollutants in Vermont air samples have been traced back to their source in other parts of the country. The prevailing wind direction is one factor which is considered in determining the placement of industries which produce airborne pollutants. Local sources (i.e. automobiles) also produce emissions which are harmful to health and the environment. "Acid rain" may be affecting the area, though the amount and extent of the impact is unknown. It is important that local officials consider the requirements of maintaining clean air in conjunction with the economic benefits of industrial development.

### Geology and Topography

**Geology:** As in much of Vermont, the dominant rock formations in Richford are metamorphic, including schist, gneiss', and quartzites. Physiographic regions within Richford include the foothills of the Green Mountains and the Greens themselves, where the bedrock is highly metamorphosed and therefore more resistant to weathering than shale, slate, and limestone of the Champlain Lowlands to the west.

In Richford the highest quality deposits are located along the Missisquoi River and its tributaries: Mountain Brook, Whittaker Brook, Alder Brook, west of Guilmettes pond, and in the area east of the Special District and north of the Missisquoi. The largest sand reserve is along Route 105 near the Berkshire town border (Vermont Geological survey maps, 1974). Much of the rest of town is covered by poorly sorted glacial till, except on mountain summits where bedrock is exposed. The most significant geologic site in Richford is the Richford Mineral Area, located along Lucas Brook in the northeast part of the town. The noted mineral collection site covers ten acres and contains a variety of minerals including talc, actinolite, fuchsite, and magnetite.

**Topography:** Richford's varied topography includes the weather resistant rock of the Green Mountains and the stream-cut valley of the Missisquoi River. The lowest point in Richford is along the Missisquoi River near Berkshire, approximately 400 feet above sea level. The land rises to 3,400 feet at the border of Orleans County, along the spine of the Green Mountains. Most human activity, houses, farming, and businesses can be found between 430 and 650 feet above mean sea level.

Topographic information must be considered in planning for all land uses, including roads, facilities, and services because slopes can present major limitations for development since there is a greater risk of erosion, structural problems, and subsequent water pollution than on shallower slopes.

## Soils

**Soils:** Soils are classified on the basis of their structure, form, composition, and suitability for various types of development. The most widely used classification scheme is that of the Natural Resource Conservation Service (NRCS). The NRCS has produced soil survey maps on an aerial photo base showing the distribution and extent of soil types in Franklin County, including the Town of Richford. (These maps are for planning purposes and may not be appropriate for site-specific soil interpretations). Soil interpretations for septic suitability are also provided in the survey. These interpretations are shown on the Septic Suitability map (Appendix D).

In planning for growth and development, it is important to target development to those soils which have the appropriate permeability, depth to water table, slope, and erosion potential. Although not the only determining factor for development, an important soil quality is its ability to handle onsite sewage. Also of interest is a soil's capability to support agriculture and forestry; the most fertile soils lie in the Missisquoi River Valley. Much of the best farmland in Richford has been protected through flood plain zoning.

## Water Resources

**Surface Water:** The Missisquoi River is the primary water feature in the Town of Richford. The river enters the town at the Canadian border near East Richford, flows through the Special District, and leaves the town at the Berkshire-Richford town boundary. While it was once used for power generation and water supply, today it is considered primarily a recreational asset. The watershed of Stanhope Brook is now the source of the municipal water supply.

Richford has two standing water bodies. Guilmette Pond is the only major pond in town, located south of Hardwood Hill with access by secondary class III roads. There are a few single-family dwellings in the vicinity of the pond, though there is little development directly on the shoreline. Fishing enthusiasts pull pickerel, bullhead, and perch from the pond. The smaller Paradise Pond consists of two ponds separated by a beaver dam. The town should protect the integrity of Guilmette and Paradise Ponds.

**Wetlands:** (See discussion of wetlands under "Critical Areas").

**Water Quality:** The suitable condition and maintenance of Richford's water supply depends on the vegetation and land use activities which occur in the water supply recharge areas. Development of the area surrounding a town water source must be planned to prevent soil erosion, siltation and turbidity in the water supply. A Reservoir Protection Overlay and Water Supply Protection Zone were created to protect the water supply.

**Groundwater:** Richford relies heavily on groundwater for on-site water systems. In Richford, areas of high groundwater potentials are located within sand and gravel deposits in the valleys of the Missisquoi River and its tributaries.

It is important to note that every activity in the groundwater recharge area can affect the quality and quantity of this potential water supply. Failed septic systems, leaking gas tanks, road salt, industrial wastes, and chemical

application in agriculture are all common sources of groundwater pollution. Once a groundwater system is contaminated, control and abatement are expensive and difficult, if not impossible.

### Critical Areas

Critical areas, for the purpose of this plan, are defined as natural areas requiring special protection from development. They include areas that have environmental, ecological, educational, and/or scenic value, such as wetlands, woodlands, shorelines, flood hazard areas, groundwater recharge areas, important wildlife and threatened or endangered species habitats, and other areas of biological, hydrological, or geological significance. Some specific critical areas that the Planning Commission feels are particularly worth noting are the Stanhope Brook Watershed area, the Guilmette Pond wetland area, and the Paradise Pond wetlands area.

**Woodlands:** Despite the past decline of forest products businesses in Vermont, forest-based industries remain an important segment of the state's economy. In Richford, the forest ecosystem supports many hardwood tree species including sugar maple, red maple, beech, yellow birch, white birch, and poplar. The soft wood species include white pine, hemlock, red spruce, and balsam fir. Forests should be protected from misuse, abuse, and poor resource management. The proper management of the forest resource will contribute to a stable economy and maintenance of the forest resource. In light of the increased development pressure throughout Vermont, protection of some of this prime forestry land will ensure a high quality forest resource in Richford.

**Wetlands:** Wetlands, as defined in the "Water Resources" section, are important for a variety of reasons. They provide temporary storage for floodwaters; they contribute to the quality of surface and ground water through chemical action; they help control the effects of erosion and runoff; they provide spawning, feeding, and habitat for aquatic life; they provide educational resources for the natural sciences; they provide recreational values and contribute to community open space and scenic beauty. Most wetlands in Richford occur in low-lying areas along the Missisquoi where they absorb great quantities of water during flood season and gradually release the water throughout the summer.

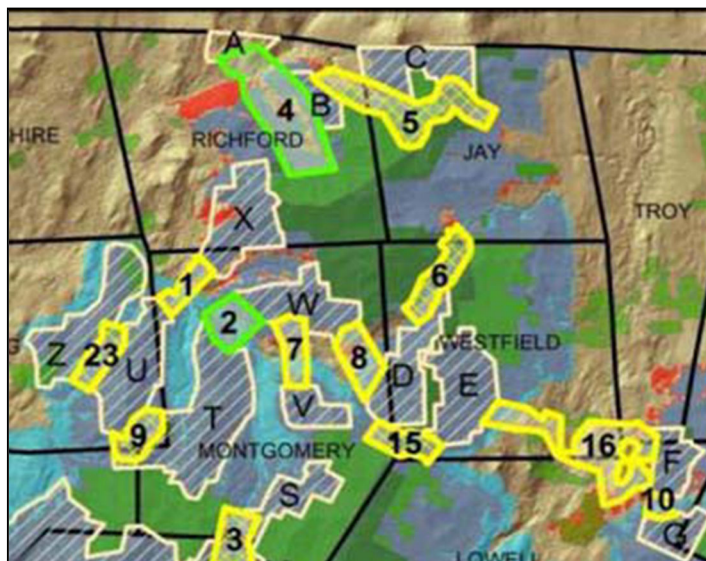
**Flood Resiliency:** Title 10 V.S.A., Chapter 32 defines a special flood hazard area (SFHA) as an area that is likely to be inundated by a flood once every one hundred years. The SFHAs in Richford are along the Missisquoi River. Richford's zoning bylaw is compliant with the National Flood Insurance Program. Flood Insurance Rate Maps, which are used in the National Flood Insurance Program, delineate the various zones of flood potential in Richford. These maps were locally adopted in late 1980. This provides residents access to discount flood insurance and enables the Town to regulate development within the SFHAs. SFHAs are subject to inundation by the 1% annual chance flood (100-year flood). Official Special Flood Hazard Area maps from FEMA can be found in the vault at the Town Office or online at the FEMA Map Service Center.

Fluvial erosion is the destruction of river banks caused by the movement of rivers and streams. This occurs when the stream is unstable and has more energy than is needed to transport its sediment load, due to channel alterations or runoff events that increase water speed in the channel. Fluvial erosion hazard mapping was released by the VT Agency of Natural Resources (ANR) in early December 2014. This mapping will assist municipalities in developing bylaws and effective mitigation strategies to regulate development within fluvial erosion hazard zones (aka "river corridors"). Richford may want to consider developing a fluvial erosion section within its zoning bylaw but will ensure the floodplain bylaw remains inclusive of river corridors.

**Wildlife Resources:** Wildlife has great value with respect to private recreation and tourism and plays a key role in nature and agriculture. Water resource areas support waterfowl habitat and other wildlife, while forested uplands, covering a large area of Richford, support many large game and small upland game animals.

The Vermont Department of Fish and Wildlife has produced maps which delineate deer yards in each town throughout the state. Large deer yards are located around Alder Brook and north of the Missisquoi River near East Richford, while smaller deer yards are near Lucas, Stanhope, Mountain, and Whittaker Brooks. Existence of these deer yards is an important factor in keeping the deer populations healthy, for without a winter habitat many deer would starve to death. There is also a rare animal community along the Missisquoi River, the breeding ground of the fan-tailed darter fish (not an endangered species). Deer yards and other important wildlife habitat must be considered by local officials when making land use planning and development decisions. The need to encourage conservation of these areas cannot be overstated. Once on the Vermont Natural Heritage Program’s list of rare communities, the habitat of the fan-tailed darter fish should be protected in local land use planning.

The Staying Connected Initiative has identified Richford as part of the Northern Green Mountains Wildlife Corridor. This is one of eight major linkages within the Northern Appalachian Forest. The Northern Green Mountains Corridor links Vermont habitats to Quebec and on into Maine and the Maritime Provinces. Two potential structural pathways (where animal crossings are most frequent) have been identified along route 105 in Richford; they are displayed as connections 4 and 5 in Figure 10.1 below. These are areas that need to be protected from further fragmentation in order to make the movement of wildlife less inhibited.



Northern Green Mountain Structural Pathways (1-34) and Habitat Block Core Areas (A-Z) – *Staying Connected in the Northern Green Mountains: Identifying Structural*

## NATURAL RESOURCES GOALS AND POLICIES

**CLIMATE AND AIR QUALITY GOALS: TO PROTECT RICHFORD FROM THE EFFECTS OF CLIMATE CHANGE AND TO ENSURE HIGH AIR QUALITY.**

**POLICIES:**

- Consider climatic conditions and weather patterns in planning for future land use, development, and energy requirements, and in the siting, design, and construction of roads, buildings, and other services and facilities.

**GEOLOGY AND TOPOGRAPHY GOAL: TO MAINTAIN AND IMPROVE THE QUALITY OF THE LAND THROUGH THE CONSIDERATION OF TOPOGRAPHY AND SLOPE IN DETERMINING ITS CAPACITY FOR DEVELOPMENT.**

**POLICIES:**

- Prohibit all land development on slopes greater than 25% and, to the extent possible, vegetative cover should be maintained.
- Regulate development on slopes greater than 15% to avoid high environmental and social costs.

**SOILS GOAL: TO MAINTAIN AND IMPROVE PRIME AGRICULTURAL AND FORESTRY SOILS.**

**POLICIES:**

- Only permit the use of farmland for industrial or commercial purposes if the site has sewer and water access and can contribute significantly to the area's economy.
- Require restoration of recently abandoned earth resource extraction sites required where appropriate.
- Regulate stormwater runoff and erosion during all phases of construction and treat wastes off the steep slope area.
- Mineral and earth resource extraction and processing facilities should be planned, constructed, and managed so as to not adversely impact: a) existing or planned uses within the vicinity of the project site; b) fish and wildlife habitat and surrounding land uses; c) waters leaving the site that will not undergo further off site management; d) prime agricultural land; e) the function and safety of existing road systems serving the project site, (increased heavy traffic, heavy trucks, impacts on the safety of bicyclists and pedestrians, etc), and f) to provide direct access to Class 3 or better highways.
- Prohibit the use of hydraulic fracturing techniques to remove fossil fuels from mineral deposits.

**WATER RESOURCES GOAL: THAT RICHFORD CONTINUES TO HAVE HIGH QUALITY SURFACE WATERS AND GROUNDWATERS.**

**POLICIES:**

- Maintain wetlands and shorelines in their natural state, and protect them from pollution through appropriate health and land use regulations.
- Review and consider adopting river corridor and vegetative buffer regulations.
- Prohibit land waste disposal or storage of possible contaminants in high water table and groundwater recharge areas.
- Carefully manage the Stanhope Brook Watershed and adopt land use regulations to control development in this area.
- Avoid new development in identified flood hazard, fluvial erosion, and river corridor protection areas. If new development is to be built in such areas, it shall not exacerbate flooding and fluvial erosion.

- Encourage the protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion.
- Adopt flood emergency preparedness and response plans.

**CRITICAL AREAS GOALS: THAT RICHFORD PROTECTS CRITICAL NATURAL AREAS INCLUDING WOODLANDS, WETLANDS, FLOOD HAZARD AREAS, AND WILDLIFE HABITAT AND ENSURE THE MAINTENANCE OF THE EXISTING NATIVE BIODIVERSITY OF THE REGION.**

**POLICIES:**

- Protect endangered and threatened species and their habitats.
- Acquisition of natural or fragile areas by local or state conservation agencies whose goal is protection of the area is encouraged.
- Development shall not encroach on Vermont Significant Wetlands (Class I and II).
- Encourage establishment of vegetative buffer strips around wetlands and, where appropriate, other critical natural areas.
- The town should regulate development in identified flood hazard areas in accordance with the federal regulations to enable property owners to buy flood insurance and to prevent future public and private losses due to floods.
- The town should support the efforts of the Staying Connected Initiative through the conservation, maintenance, and enhancement of its structural pathways within the Berkshire Wildlife Linkage Corridor.
- Development shall be prohibited on land over 1500 feet in elevation except for agriculture and forestry purposes.



## CHAPTER 11: LAND USE PLAN

### Overview

Planning gives Richford the opportunity to ensure orderly growth, to choose its future, provide a balance of natural and built environments, and preserve settlement patterns, town centers, and rural landscapes that are integral to the character of this community.

Land should be developed according to its physical characteristics, projected need, capacity of existing municipal services, and compatibility with existing land uses. Soils, topography, and critical areas must be considered, as well as the need for economic growth, housing, and public services. Future development also may be planned to protect, and perhaps restore, scenic areas and historic features.

The goals and policies of the natural resources, economics, utilities, facilities and services, housing, and community profile sections of the plan help define the goals and policies for future land use in Richford.

### Land Use History

The village zoning bylaws, first adopted in May 14, 1973, grandfathered existing properties, which were given conditional use approval as long as the use or structure did not change. Changes proposed for these properties are reviewed by the Development Review Board (DRB), which determines whether continued conditional use will be allowed.

In May 1991, the Town adopted interim zoning bylaws followed in 1992 with permanent zoning bylaws. Permanent bylaws for the combined Town and Village of Richford were adopted in March of 2005. There was a major revision to the bylaws completed in 2010.

In the future, the town wishes to continue the historic settlement pattern of a compact village center surrounded by rural countryside. In order to retain the historic feel of the village district, a historic overlay district may be appropriate for the Downtown Richford and East Richford Historic Districts, as identified by the historic review released in 2001.

Richford Village Center Designation was approved by the Vermont Downtown Development Board on September 26, 2005. Major investment by the town, state, and private property owners over the past several years have already contributed to this important revitalization (see the Economics Chapter for more information and see Appendix C for the Village Center Map). The Village Center designation was last renewed in September 2015.

### Richford Land Use Districts

The following development limitations were considered in drafting the proposed future land use map: historical land use, high elevations (over 1500 feet), steep slopes (over 15%), soil suitability, wetlands, deer wintering habitat, the Stanhope Brook Watershed, flood hazard areas, and potential groundwater recharge areas.

The Special District is determined by the historical village boundaries. With a few exceptions, the district is the only area where services, such as water and sewer, are available. Within the Special District, there are five land use districts: The Village Residential District, the Commercial/Industrial District, the Mixed-Use District, the Education District, and the Recreation/Conservation District. Located outside the Special District are the Rural Residential District, the Agriculture District, the Forest/Conservation District, the Water Supply Protection District, and the Flood Hazard Overlay. Refer to the Proposed Land Use Map for exact location of the districts.

**Mixed Use District** - The Mixed Use District is generally located in the designated Village Center around the intersection of Main and River Streets, and along Troy Street. This district provides for increased densities of development suitable for the traditional village environment. Development in the district shall promote the

continuation of higher density commercial and residential uses while providing a pedestrian orientated environment. Much of the Mixed Use District is located within state designated Village Center.

**Village Residential District** - The Village Residential District is generally located on both sides of Main Street, north of River Street, and east of Province Street. This district provides for increased densities of development suitable for the traditional village environment. Development in the district shall promote the continuation of higher density residential uses while providing a pedestrian orientated environment.

**Commercial/Industrial District** - The Commercial/Industrial District is located in the Troy Street area, the Province Street area, the South Main Street area, and completely encompasses the Richford Business Park. The District provides for increased densities of commercial and industrial development suitable for the traditional village environment and, in the business park, industry that may be inappropriate for the village setting.

**Rural Residential District** - The Rural Residential District is determined by the historical use of land in the area, proximity to other centers, and the soil's suitability for septic systems. The intent of the District is to accommodate residential growth without burdening the town by extending sewer or water. This area may also accommodate small commercial or resource based light industrial development. For residential uses, cluster housing is encouraged.

**Agricultural District** - The Agricultural District is land in town which has somewhat limiting soils but not so much as to prevent all development. These areas have historically been, and continue to be, used for agriculture and forestry.

**Recreation/Conservation District** - The Recreation/Conservation District includes areas that offer unique environmental and public use opportunities within the Special District. It also seeks to conserve environmentally fragile areas and minimize any hardship that may arise as a result of nature's acts. Residential development is not appropriate for this district.

**Forest/Conservation District** - The Forest/Conservation District has limited suitability for community growth and development because of severe limitations, including remote locations, extreme topography, and shallow soils. It is intended to protect the scenic and natural resource values of this land for forestry, wildlife habitat, wetlands, and outdoor recreation. Only limited low-density development is allowed in this district.

**Education District** - The purpose of this district is to reserve areas for current and future educational facilities and their accessory uses within the central village area. Uses in this district must be compatible with the primary function of the area and the presence of school children.

**Water Supply Protection District** - The Water Supply Protection District is defined by the watershed that supplies the Stanhope Brook Reservoir. It is intended to protect Richford's municipal water system as well as other water recharge areas, including wetlands.

**Flood Hazard Area Overlay** - The Flood Hazard Area has been designated to minimize future and private losses due to floods by regulating future land development in hazard areas. Designation of this district is also required for continued town eligibility in the National Flood Insurance Program. Included are all areas in the 100-year flood plain as shown in the Flood Insurance Study and Maps prepared by the Federal Flood Insurance Administration; these are on file at the Town Clerks office.

The remaining sections of this land use plan address some of the key land uses and their appropriateness in each district.

## Residential Use

Most development in the Town of Richford, including residential, is dependent on on-site water and sewer. The Special District's water and sewer facilities extend along Route 105 to the Industrial Park, which is the only significant extension of both services outside of the Special District. A municipal water line extends up Route 139 to the Canadian border, and water and sewer extend only short distances beyond the Special District along other roads.

Most of the land along Route 105 and 139 through the Special District, as well as the connecting side streets, are currently zoned residential. However, numerous commercial properties and some industries are intermingled. Some areas are very densely settled, particularly at the south end of the Special District, with many dwellings on small lots. Without extensions of water and sewer, the Special District will remain the primary location for high-density residential growth.

Areas suitable for medium density development must be planned according to the natural capability of the land to support development. As shown on the proposed land use map, such areas are expansions of existing development around the Special District and East Richford, the aim being to concentrate development in existing centers. The other areas proposed for this type of development are along Hardwood Hill Road, South Richford Road, Stevens Road, McAllister Road, Pinnacle Road, and Drew Road, Province Street, and Route 105 south of the Special District.

Low-density residential development can be permitted in the agricultural district on the condition that the site can support the development and that it does not conflict with agricultural and forestry uses.

While residential dwellings are not desired in the conservation districts, only very low densities should be allowed in the Forest/Conservation District and residential dwellings should be prohibited in the Recreation/Conservation District. These lands have severe site limitations, remote locations, extreme topography, and shallow soils.

For water quality and safety reasons, no residential development should occur in the water supply protection district or flood hazard areas.

Future seasonal residential development should take place in the same area where lower and medium density residential development is targeted, since seasonal development is also dependent upon site specific water and sewer facilities and needs to be accessible by town services.

## Commercial and Industrial Use

The Special District (including the Village Residential, Mixed Use, and parts of the Commercial/Industrial Districts) is the commercial center for the town. The commercial establishments in the Special District meet most daily needs of town residents. Because of the availability of municipal services within the Special District, it makes sense that the intense commercial development should occur there. Historically, industrial development occurred along the river in the Special District but recently industrial development has been encouraged to locate in the industrial park.

Commercial development outside of the Special District should be relative to the scale of the district. Smaller commercial operations could be permitted in the Rural Residential District and still smaller operations in Agricultural District. In this manner, commercial strip development will be discouraged along major roadways. Small, isolated commercial ventures and home occupations are recommended where appropriate, except in the Conservation, Water Supply Protection, and Floodplain Districts.

## Agriculture and Forestry

Future development will most likely continue to place pressure on open space and agricultural land in Richford. The agricultural designation is not meant to prohibit development within the areas delineated on the land use map; rather development in these areas should to the extent possible, preserve the agricultural character and maintain the agricultural viability of the land.

Agriculture is identified as the primary land use in three areas in town: the northwest corner, the Missisquoi River corridor, and the extreme northeast corner. These are areas which are either actively farmed or contain the best agricultural soils in town.

Agriculture is the prime desired land use in two of the districts – agriculture and floodplain. In these areas, other land uses should only be permitted if they do not conflict with farming. Farming will not be discouraged in other districts, although it is not expected to have as important a role. There is one active farm in the Special District and its continuation into the future should be supported. About ten percent of Richford’s land area is conserved farmland through the Vermont Land Trust.

Careless management and planning of the forest can cause flooding and damage fish and wildlife habitat. The forests are used for many purposes in addition to timber harvesting, including hiking, snowmobiling, hunting, cross-country skiing, bird watching, and sightseeing. Forestry is anticipated in the Forest/Conservation and Water Protection District. It may also be appropriate in the Agricultural and Rural Residential Areas.

## Compatibility with Neighboring Towns

The Towns of Montgomery, Enosburgh, Jay, Westfield, and Berkshire have regionally adopted plans. According to state regulations, the Richford Town Plan must be compatible with other adopted plans.

Richford’s Proposed Land Use Map is compatible with Berkshire’s Proposed Land Use Map. Adjoining borders are classified as rural lands/residential, agriculture, and conservation. The only area dissimilar is the existing industrial park in Richford on the Berkshire line. Both towns anticipate some rural residential development along the Route 105 corridor which connects the two communities. For these reasons, the Richford Planning Commission believes these plans to be compatible.

Richford’s and Montgomery’s proposed land use maps are compatible, with agriculture/residential and conservation districts at their adjoining border. Richford’s and Enosburgh’s proposed land use maps are compatible. Richford’s Agricultural District meets with the corner of Enosburgh in the Rural/Agricultural District.

Richford’s and Jay’s proposed land use maps are compatible. The Agricultural District, Conservation District, and Water Supply Protection District in Richford border a rural residential area in Jay. Route 105 crosses into Jay from the Forest/Conservation District in Richford to the rural residential area in Jay. Similar low densities of residential development are permitted along the corridor in both neighboring towns.

Richford’s and Westfield’s proposed land use maps are compatible, with the Jay State Forest encompassing the border area of the two towns.

Richford’s plan is compatible with the Northwest Regional Plan which has a policy to locate and configure land development to avoid the fragmentation of and adverse impacts to natural areas, critical wildlife habitat and connectivity areas identified in the regional plan or local plans by the Vermont Agency of Natural Resources, or through site investigation. The Town of Richford and the Richford Planning Commission seeks to work with neighboring communities and the region on issues and projects of common interest.

## Conclusions

The future land use plan and map has been created based on the information generated in the other six chapters of the plan. By implementing the land use plan many of the goals of other parts of the plan may be achieved. As stated earlier, the goal is not to prevent growth and development but to guide it to appropriate areas while preserving the existing character of Richford.

## LAND USE PLAN GOALS AND POLICIES

**HISTORIC SETTLEMENT PATTERN GOAL: TO PLAN DEVELOPMENT SO AS TO MAINTAIN THE HISTORIC SETTLEMENT PATTERN OF COMPACT VILLAGE AND URBAN CENTERS SEPARATED BY RURAL COUNTRYSIDE.**

**POLICIES:**

- Continue to utilize the site plan review process to assure proposed developments have minimum impact on existing properties and on the environment.
- Review and, if necessary, amend the zoning bylaws to be consistent with this Town Plan.
- Continue to support the development and redevelopment of mixed use structures that reinforce traditional settlement patterns within the Village Center and take advantage of the existing infrastructure.
- Continue to participate in development review - whether through site plan review, zoning, or Act 250

**RESIDENTIAL GOAL: TO PROVIDE SUFFICIENT SPACE IN APPROPRIATE LOCATIONS FOR RESIDENTIAL DEVELOPMENT WITH A CONSIDERATION OF LAND CAPABILITY AND PRESERVATION OF THE TOWN'S CHARACTER.**

**POLICES:**

- Encourage low densities where low levels of services are to be provided, and higher densities only where they can be properly served.
- Conserve and protect the quality and vitality of existing residential neighborhoods and renew or rehabilitate obsolete and deteriorating dwellings and neighborhoods.
- Encourage planned unit developments, wherever appropriate, to protect open space/agricultural land and woodland.
- Make all proposed residential developments within the mixed use district conditional.

**COMMERCIAL AND INDUSTRIAL GOAL: PUBLIC INVESTMENT SHOULD BE PLANNED SO AS TO MINIMIZE DEVELOPMENT PRESSURE ON AGRICULTURAL AND FOREST LAND.**

**POLICES:**

- Prohibit strip commercial development along highways.
- Commercial construction should be well designed and attractive, and should protect adjacent land with appropriately landscaped buffers.
- Prohibit industrial development from overburdening municipal services and ensure it does not have undue adverse environmental impacts.
- Design industrial land construction well and in an attractive manner, and protect adjacent land with appropriately landscaped buffers.

- Plan Industrial development in industrial park areas which are served by necessary facilities including sewer, water, and transportation.

**RECREATION AND SCENIC USES GOAL: TO PROVIDE, IN CONVENIENT AND SUITABLE LOCATIONS, RECREATIONAL AREAS AND NECESSARY MUNICIPAL FACILITIES AND SERVICES FOR THE USE AND ENJOYMENT OF TOWN RESIDENTS.**

**POLICIES:**

- Encourage appropriate activities within the agricultural, conservation, and floodplain districts that will protect open areas and provide more recreational opportunities for residents and visitors.
- Protect prime recreational resources from incompatible land uses to preserve scenic qualities (including agricultural land, woodland, riverbanks, shorelines, and ridges and mountaintops) from unnecessary despoliation.

**AGRICULTURAL AND FORESTRY GOAL: THAT RICHFORD PROTECTS AND ENCOURAGES THE CONTINUATION OF AGRICULTURE AND THE CONSERVATION OF MAJOR FORESTLANDS.**

**POLICIES:**

- Support incentives, such as current use and conservation easements, and other available means to keep prime agricultural lands in productivity.
- Provide for continued public and private recreation opportunities, sound forest harvest practices, and compatible rural uses.
- Support efforts of the Vermont Land Trust in the purchase of development rights on farms containing prime agricultural soils

## APPENDIX A: INVENTORY OF STUDIES AND PLANS

### 1. Richford Area Wide Brownfield Redevelopment Plan

October 22, 2013

Stone Environmental and the Northwest Regional Planning Commission

#### EXECUTIVE SUMMARY

The Area Wide Brownfield Planning project in Richford, Vermont brought a team of consultants together to plan for the revitalization of the village center, with additional concentration on how to redevelop four historic brownfield properties as an important catalyst for growth and opportunity. Stone Environmental, Inc. (Stone) and our partners the Hartland Group and Lamoureux & Dickinson (together the Stone Team) were retained by the Northwest Regional Planning Commission to perform the project utilizing funds provided through a Brownfield Assessment Grant from United States Environmental Protection Agency (US EPA).

The Stone Team led a community planning session attended by over 80 community members, where they developed the following vision for the Village Center:

- A welcoming, attractive community with a positive image.
- A productive downtown that capitalizes on the town's architecture, the Missisquoi River, and its location proximate to recreation resources.
- To implement the vision, the plan has identified short and long term projects. The highest priorities include:
  - The Missisquoi Park and Main Street Overlook Park at 111, 113 Main Street;
  - Main/River Street Improvements, including upgrades to the streetscape and building facades, and redevelopments;
  - Municipal parking; and
  - Welcome center.

Site-specific assessment at four historic brownfield properties identified environmental, infrastructure, and structural conditions that would significantly impact redevelopment, which generally include Phase II Environmental Assessments, infrastructure improvements ranging from upgraded utility services to reconfigured sidewalks to create accessible entrances, structural deficiencies, and required code improvements that will increase the cost of redevelopment. The private properties selected for specific redevelopment feasibility analysis include:

- The Taylor Block (2 Main Street),
- The Boright Block (1 Main Street),
- The Wheeler Building (32 River Street), and
- The Bank Block (aka, the Mason's Building, 61 Main Street).

Property Profile Sheets for each of the selected sites are provided following the Executive Summary.

The community is committed to maintaining commercial uses on the ground floors of all four sites, except 1 Main Street where a Community Center is currently located and considering staying on the first floor and basement. Based on an analysis of market feasibility, the following prospective new businesses have the best chance of success in downtown Richford: Full-Service Restaurant, Limited Service Eating Places, Used Clothing Store, Sporting Goods Store, and General Merchandise. Filling the vacant commercial spaces on Main Street will require property owners to be entrepreneurial in opening their own businesses, as in the case of 61 Main Street, or aggressive in recruiting tenants for the other spaces. It is unlikely that redevelopment of 1 Main Street and 32 River Street will happen without significant public subsidy due to the structural, infrastructure, environmental and market challenges. This project recommends that property owners consider affordable rental housing for the upper floors of these two buildings, a strategy which can give access to the resources needed to address the buildings' needs while providing stable occupancy and professional management.

This overall effort identifies feasible yet challenging projects and tasks that will improve the character of the downtown, one step at a time. Recommended next steps are outlined and identified for implementation by various project stakeholders and the community at large. It will take significant public/private partnership and community involvement to accomplish many of the projects and tasks, but as each one is completed it will heighten the sense of anticipation and energy for the community to continue moving forward!

## **2. Richford Community Visit – Report and Actions Plan**

July 2007

Vermont Council on Rural Development

### **INTRODUCTION**

Beautifully situated on the Missisquoi River, framed by fertile farmland and lush Vermont hills, Richford is, in many ways, a place of abundance. Richford is a classic Vermont village with graceful and historic architecture that enjoys modern amenities such as broadband, a superb health care center, and some impressively renovated buildings.

Yet Richford has struggled, like many Vermont towns, with a loss of economic stability, social and family fractures, and isolation. The people of Richford, keenly aware of both their assets and challenges, invited the Vermont Council on Rural Development to return to the town a decade after the first Community Visit was conducted in 1997. That invitation, and residents' participation during this four-month process, is indicative of Richford's most enduring strength – its people.

None of the issues identified during the Community Visit Program in Richford are insurmountable. Yet nothing can be accomplished without the town's commitment to share its skills, spirit, time and financial resources among each and every member of the community. The Program seeks to unify and strengthen a community by placing the responsibility of leadership – and the compassion and commitment that leadership entails – in the hands of community members. VCRD is proud to work with the people of Richford, and applauds their courage and tenacity in working toward a stronger future for their town.



The Task Forces formed during this process will address some of the most significant issues faced by Richford. The Job Creation and Retention Task Force will work to expand entrepreneurial and border opportunities, unify existing business associations, and actively promote economic development. The Task Force on Law Enforcement will address resident concerns about safety and consider appropriate law enforcement staffing and how to achieve it, while addressing fundamental issues contributing to lawlessness and fear. Finally, the Image and Communication Task Force will confront substandard housing, work to improve the downtown and public areas, and actively develop and promote a positive town image, both internally and beyond the borders of Richford.

VCRD expresses its appreciation to Eric Collins and other Richford Selectboard members for their support of this process. Laura Ovitt is a wealth of knowledge about where to turn to accomplish the many logistics involved in the program and was a great help. The Richford Steering Committee is to be commended for their consistent efforts to get the word out to community members. Connie Burns and Al Perry were deeply involved in the first Visit, and have remained steadfast believers in Richford through this process. Finally, VCRD would like to thank Mary Mankin, Chair of the Community Visit to Richford, for acting on her knowledge of community leadership and for stepping up when asked.

Accomplishments in the Community Visit program result from local leadership and community effort, however VCRD is eager to support implementation. There are excellent ideas found throughout this report, and we hope that you will call upon members of the Visiting Team (listed at the end of this report) and VCRD staff for help.

## APPENDIX B: LIST OF CIVIC ORGANIZATIONS

**Richford Lions Club** - Besides their national projects with special emphasis on needs in sight and hearing, the Richford Lions Club supports the school bands, school sports and class activities, scholarships, Old Home Days on the first weekend in July, and numerous community service projects.

**American Legion Post #12** - The Legion provides their banquet hall for senior citizen meals and meals for deceased member's families after funerals and provide Christmas baskets to elderly legion members and donate to little league programs, girl scouts, and various other youth programs. The Legion also provides three \$1000 scholarships for Richford High School seniors going to college and sponsorship for Richford High School boys attending Boys State, which organizes the Town's annual Memorial Day parade and program.

**Knights of Columbus** - Among the many charitable activities quietly conducted by the Knights of Columbus are sponsorship of a cub scouts troop and donations of food baskets for shut-ins. Missisquoi Lodge 9 F & AM provides support to Shriner Hospitals for impaired and burned children and awards two scholarships to Richford High School graduating seniors. The Lodge assists with sponsoring Mason CARES seminars (Comprehensive Assessment and Recovery Effort) through area schools.

**The Beautification and Image Committee** works to keep the Special District attractive. The small group raises funds to purchase trees and plants for the parks. Trees have been planted along Main Street, and the committee takes charge of planters at the Town Hall, Library, and Post Office buildings. The committee also purchases and maintains lighted ornaments, which are put up on utility poles at Christmas. The committee presents the Golden Service Award, at the annual holiday gathering to a community member who has volunteered time and effort to improving the community for all.

**The Stage Committee** maintains the stage on the second floor of the Town Hall, provides physical and technical support, and oversees use of the stage and audio-visual equipment. The Christmas Concert, the Mr. Falcon Contest, the Elementary School play, the library, and summer youth programs make use the stage. The Hometown Follies, a variety show featuring local talent, is staged annually raising funds to assist the Meal Site.

**The Richford Historical Society** is now housed in the 1908 Fire Station. The Society's plan is to both preserve the building as their home, and utilize it as the Fire Station Museum, (to be renovated through local donations and fund raisers), which will then contain artifacts pertaining to the history of Richford. The Society has received enthusiastic support from the community and its members meet monthly.

### **Richford Fire Department**

#### **Richford Fire Department Auxiliary**

#### **Richford Parent-Teacher Organization**

**Franklin County Community Action** assists the low-income residents. Among the programs offered are commodity distribution and WIC, a food and nutrition program for Women, Infants, and Children.

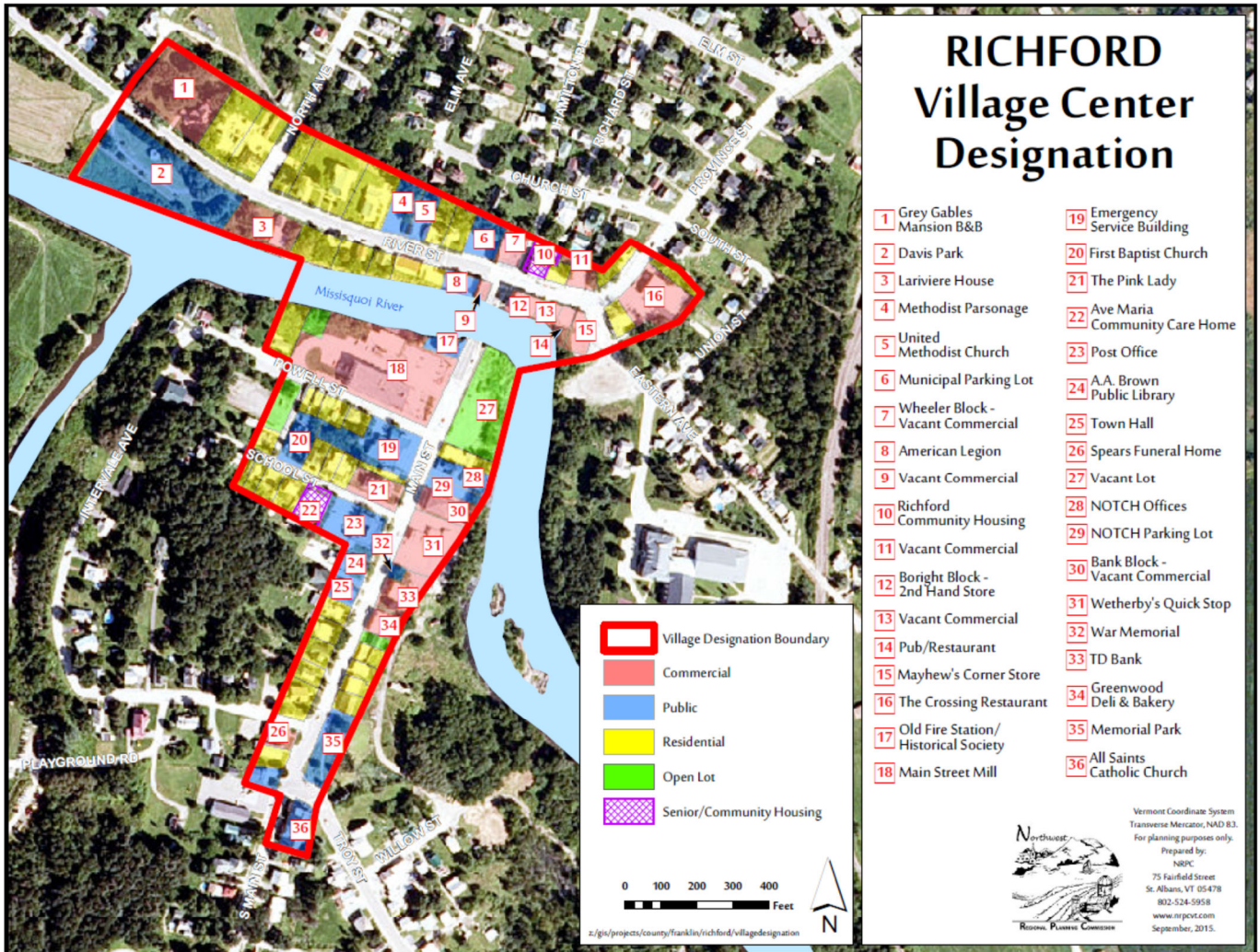
**BERMMA** - Another homegrown organization assisting low-income residents is the Berkshire, Enosburgh, Richford, and Montgomery Ministry Association. It operates the food shelf and receives and distributes donated clothes, furniture, and house ware. BERMMA helps its clients get back on their feet and are given assistance with budgeting and finding jobs.

**Richford Renaissance** is in existence to improve Richford's housing for the benefit of the community through the development, operation, financing and management of affordable projects with the goals of improving quality and preserving affordability. The organization has completed one rental project that included four buildings: Academy Lane Schoolhouse Apartments, the Janes Block, and two duplexes on Powell Street and Intervale

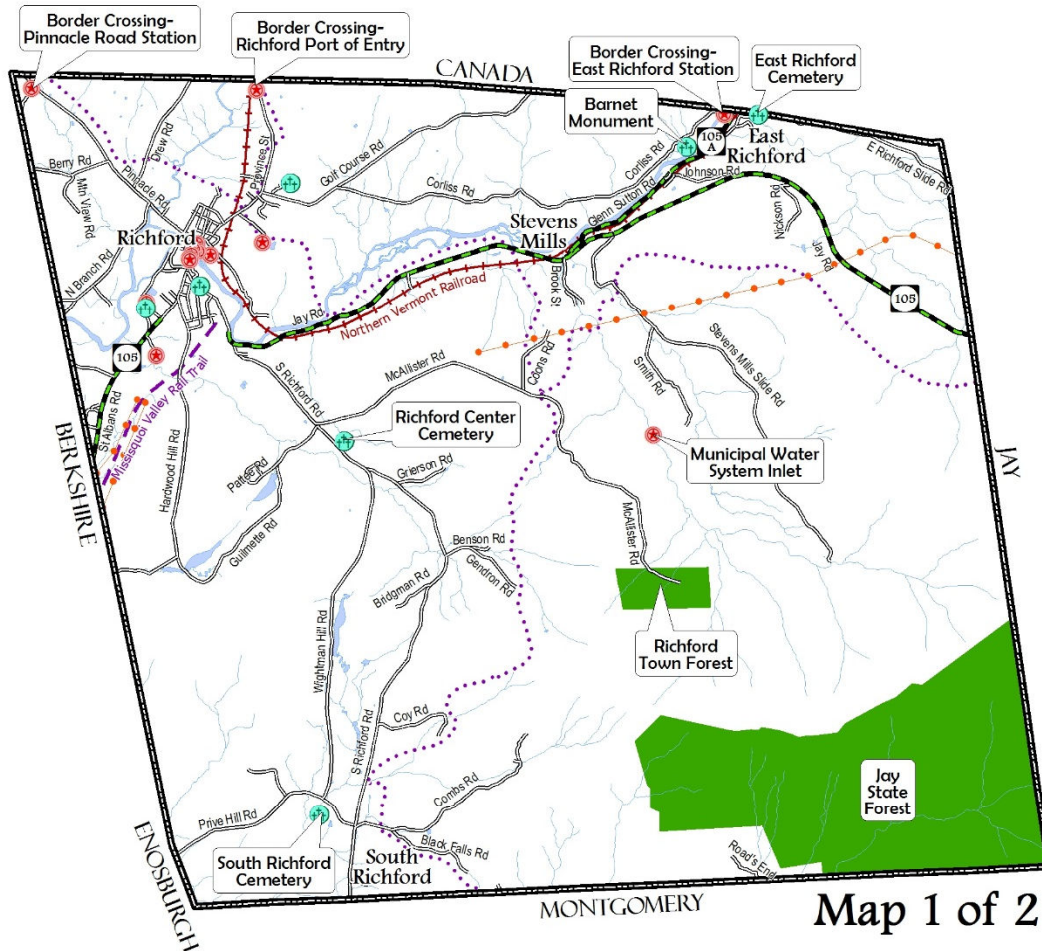
Avenue. That project is fully occupied. The volunteer board of Richford Renaissance is committed to the improvement of housing within the Special District.



Village Center Designation Map



# FACILITIES & SERVICES Town of Richford



Map 1 of 2

**LEGEND**

**Facility or Service Features**

- Facility
- Cemetery
- Electric Transmission Line
- Public Land

**Surface Water Features**

- River, Stream or Brook
- Pond or River

**Transportation Features**

- State Highway
- Road
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Boundary Feature**

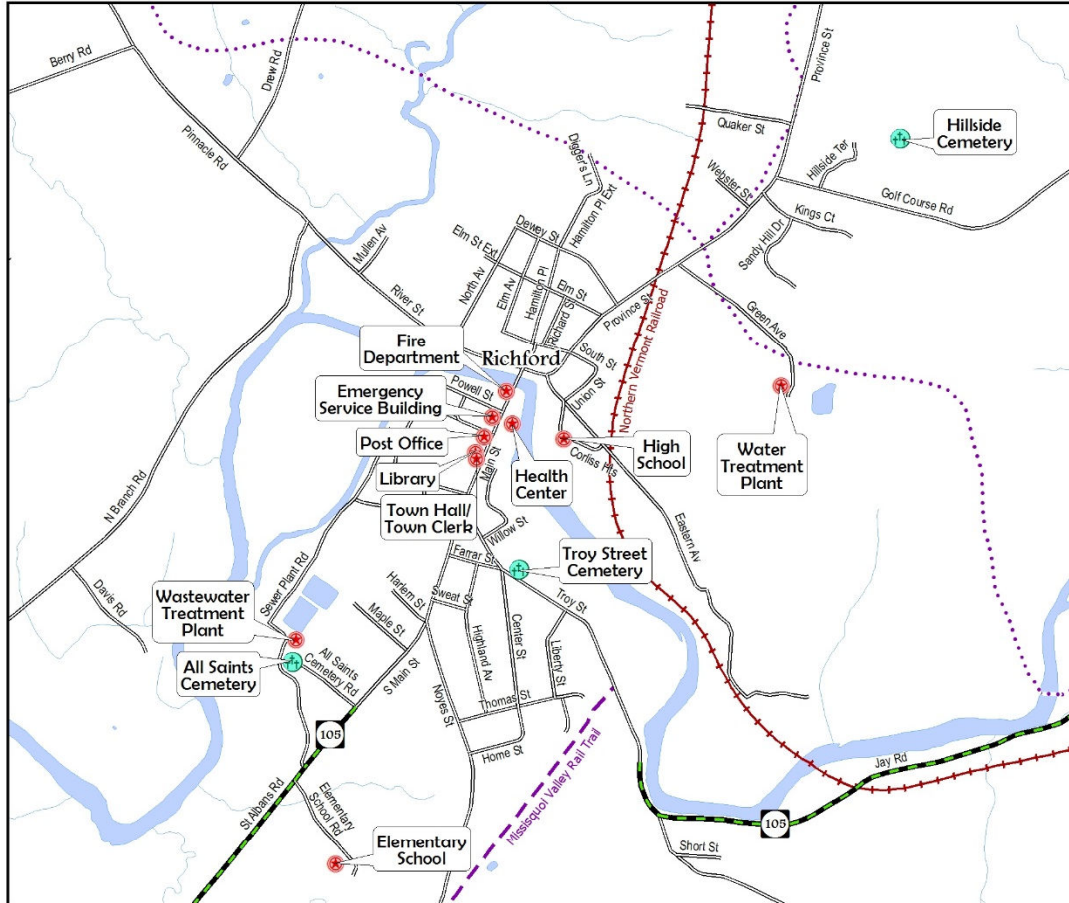
- Town Boundary

Vermont Coordinate System  
Transverse Mercator, NAD 83.  
For planning purposes only.  
Prepared by:  
Northwest RPC  
75 Fairfield Street  
St. Albans, VT 05478  
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www.nrpcvt.com  
May, 2015.  
[z:/gis/projects/county/franklin/richford/towaplan2015](http://z:/gis/projects/county/franklin/richford/towaplan2015)

0 2,500 5,000 7,500 10,000 Feet

0 0.5 1 1.5 2 Miles

# FACILITIES & SERVICES Town of Richford



Map 2 of 2

**LEGEND**

**Facility or Service Features**

- Facility
- Cemetery
- Electric Transmission Line
- Public Land

**Surface Water Features**

- River, Stream or Brook
- Pond or River

**Transportation Features**

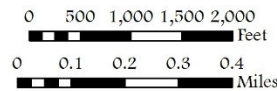
- State Highway
- Road
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Boundary Feature**

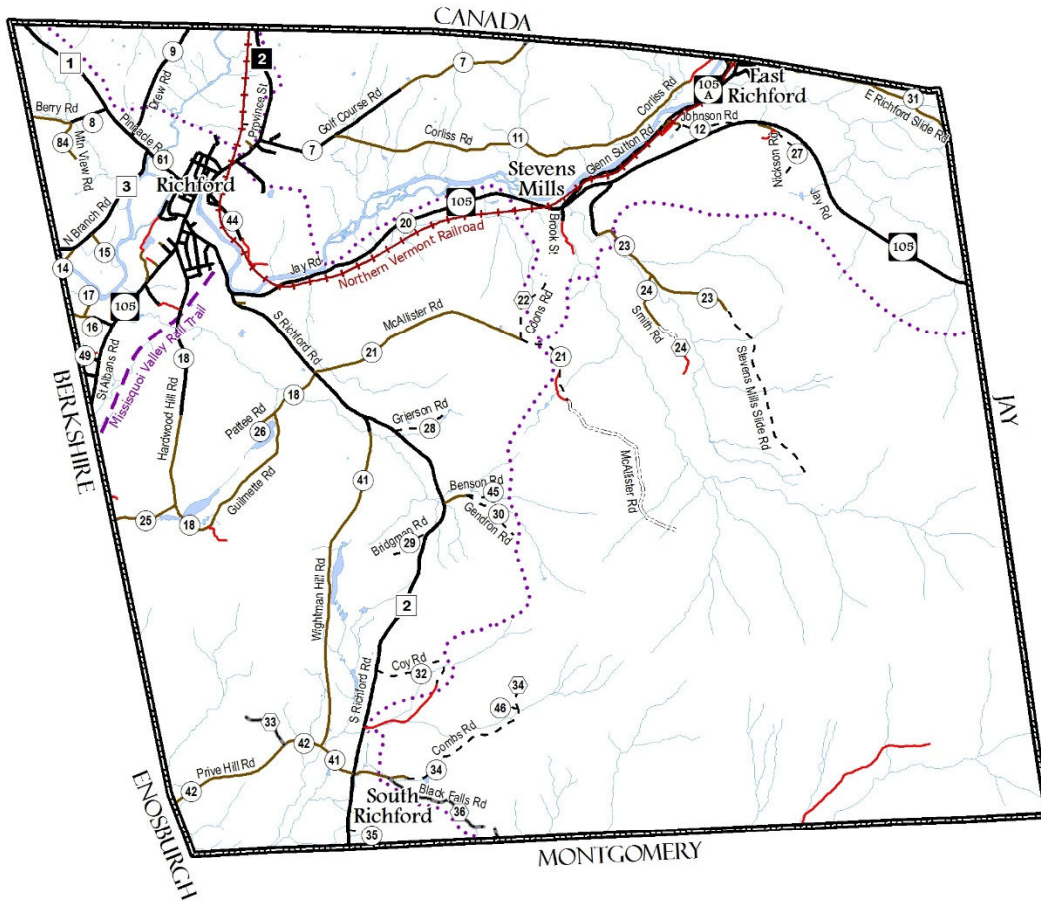
- Town Boundary



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richford/towaplan2015



# TRANSPORTATION SYSTEM Town of Richford



**LEGEND**

**Transportation Features**

- Paved
- Gravel
- Soil or Graded
- Unimproved/Primitive
- Impassable/Untraveled
- Unknown Surface Type
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Road Class Features**

- State Numbered Route
- Class 1 Town Highway
- Class 2 Town Highway
- Class 3 Town Highway
- Class 4 Town Highway

**Surface Water Features**

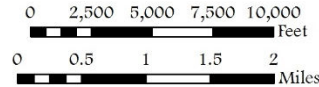
- River, Stream or Brook
- Pond or River

**Boundary Feature**

- Town Boundary

## Map 1 of 2

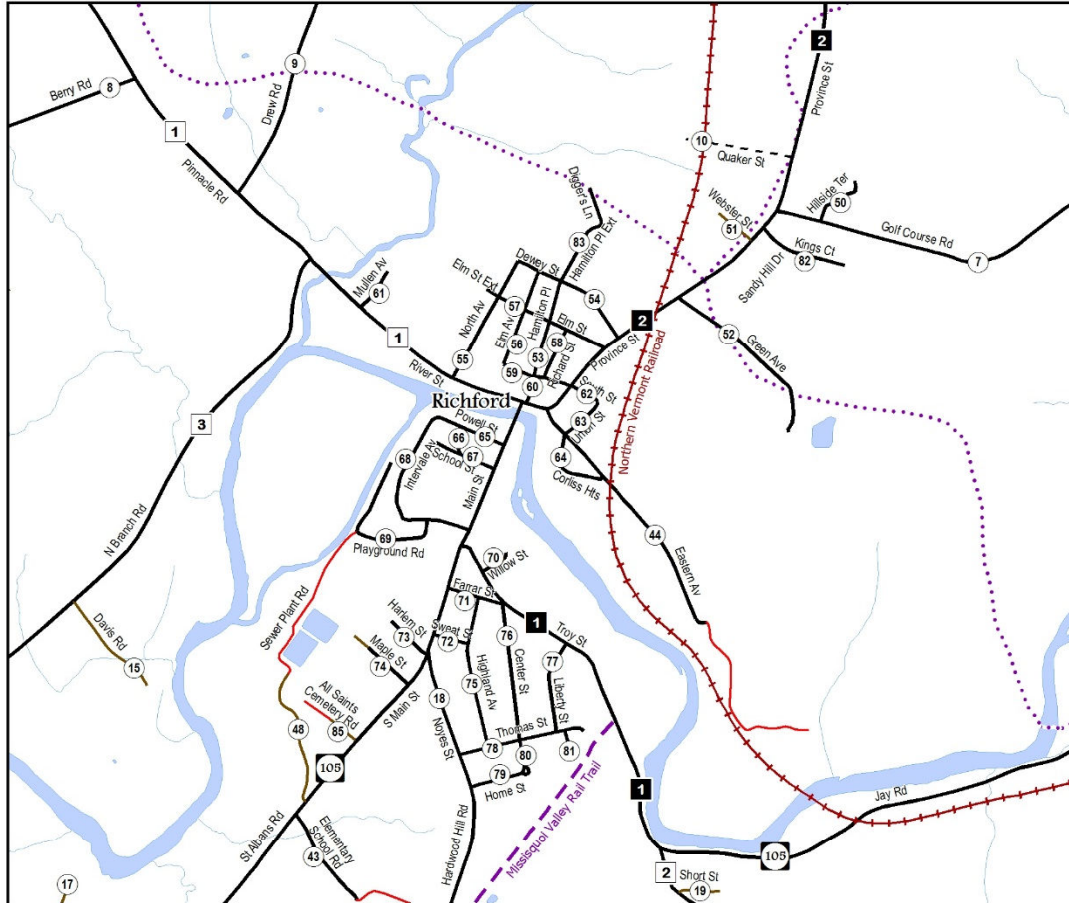
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# TRANSPORTATION SYSTEM

## Town of Richford



**LEGEND**

**Transportation Features**

- Paved
- Gravel
- Soil or Graded
- Unimproved/Primitive
- Impassable/Untraveled
- Unknown Surface Type
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Road Class Features**

- State Numbered Route
- Class 1 Town Highway
- Class 2 Town Highway
- Class 3 Town Highway
- Class 4 Town Highway

**Surface Water Features**

- River, Stream or Brook
- Pond or River

**Boundary Feature**

- Town Boundary

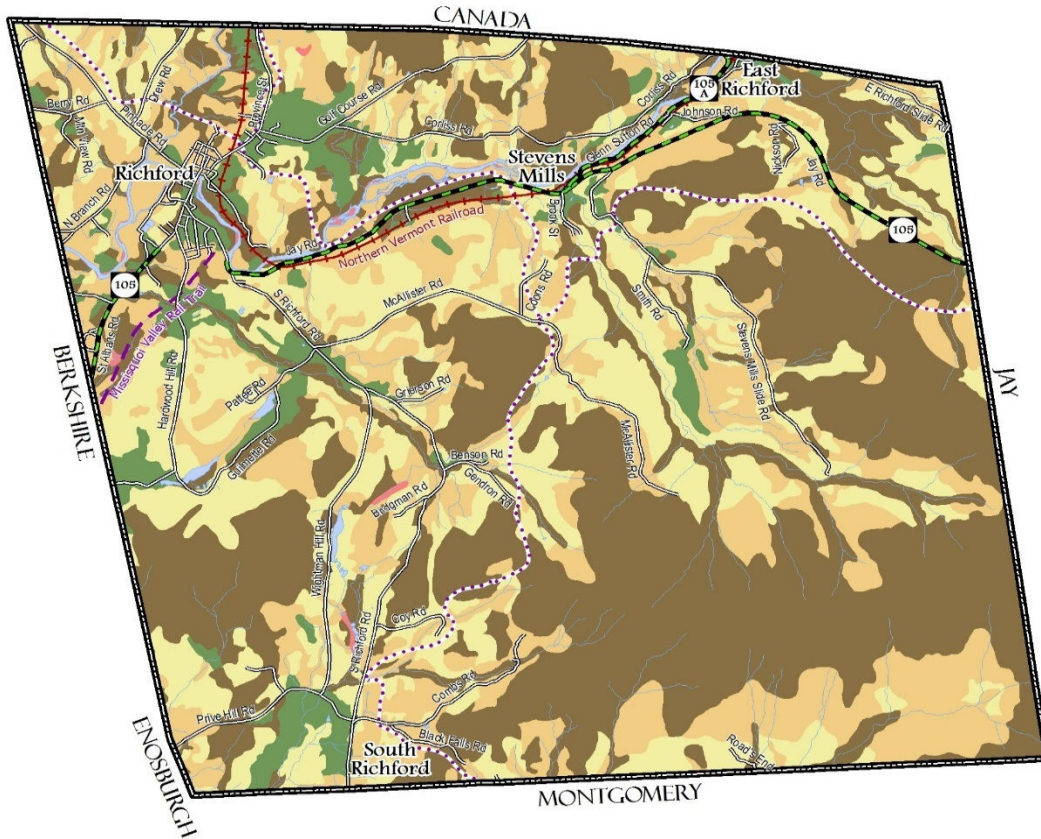
## Map 2 of 2

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0 500 1,000 1,500 2,000 Feet

0 0.1 0.2 0.3 0.4 Miles

# SEPTIC SUITABILITY Town of Richford



**LEGEND**

**Land Use/Land Cover Features**

- Well Suited
- Moderately Suited
- Marginally Suited
- Not Suited
- Not Rated

**Surface Water Features**

- River, Stream or Brook
- Pond or River

**Transportation Features**

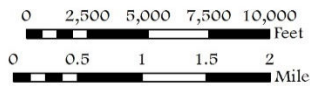
- State Highway
- Road
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Boundary Feature**

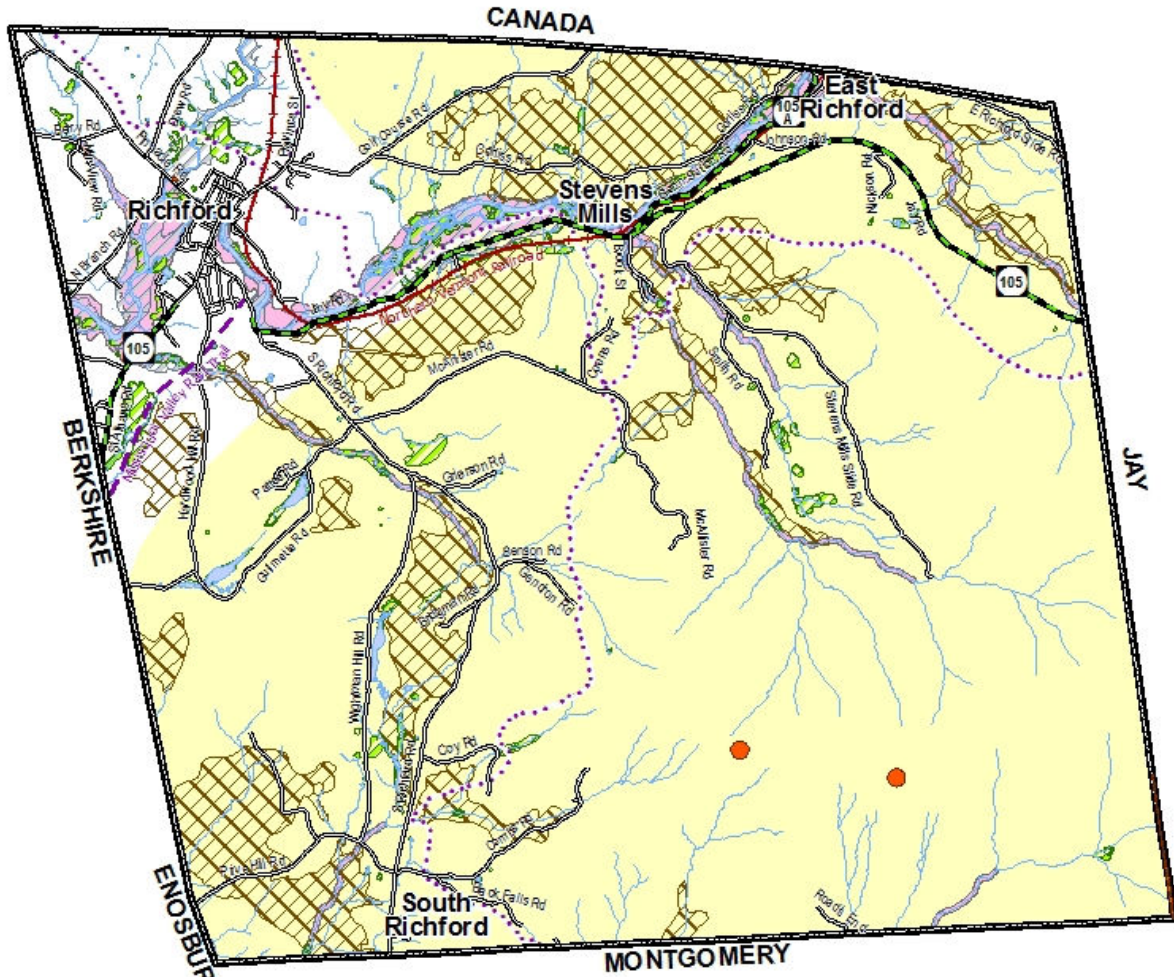
- Town Boundary



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# NATURAL AREAS Town of Richford



**LEGEND**

**Natural Resource Features**

- 100 Year Flood Zone
- Threatened or Endangered Species
- Wetland
- Deer Wintering Area
- Bear Habitat
- River Corridor

**Surface Water Features**

- River, Stream or Brook
- Pond or River

**Transportation Features**

- State Highway
- Road
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Boundary Feature**

- Town Boundary

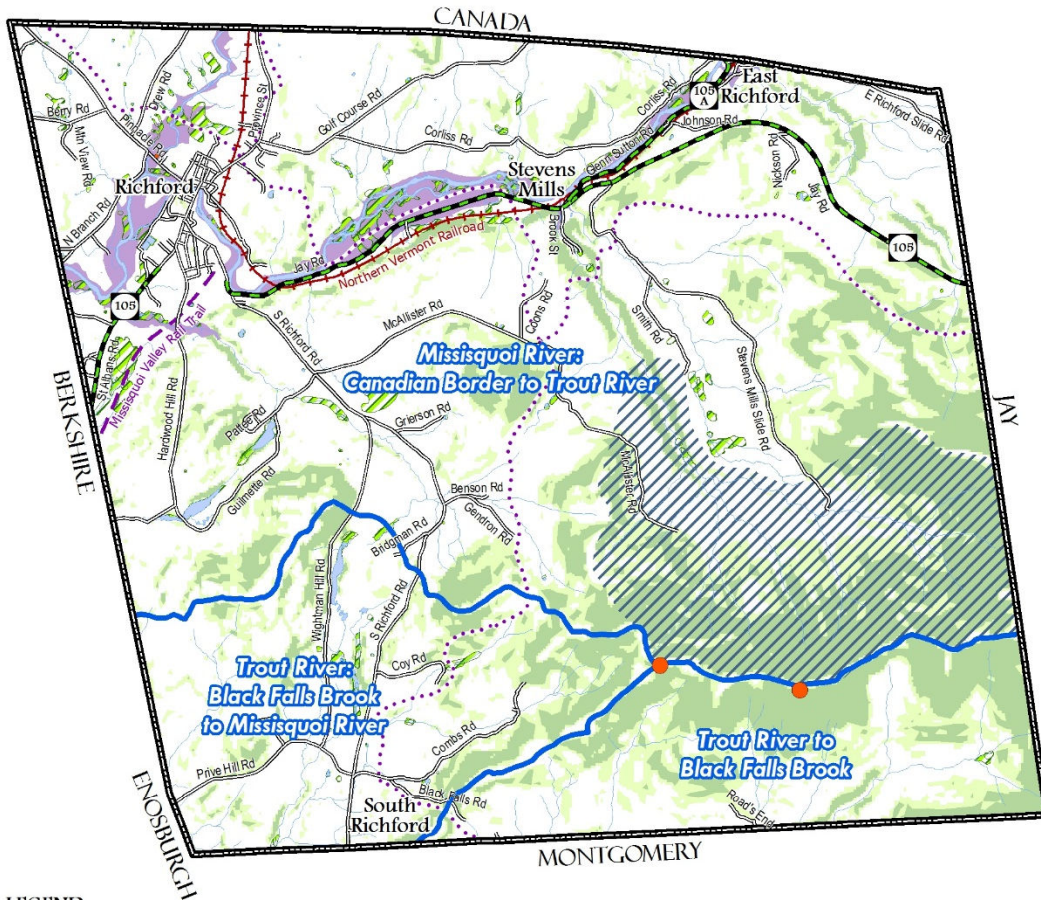
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May 2015

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0 2,500 5,000 7,500 10,000 Feet  
0 0.5 1 1.5 2 Miles

# CRITICAL AREAS Town of Richford



**LEGEND**

**Critical Area Features**

- Slopes > 20%
- Slopes > 25%
- 100 Year Flood Zone
- Threatened or Endangered Species
- Wetland
- Surface Water Protection Area
- Watershed Boundary

**Boundary Feature**

- Town Boundary

**Transportation Features**

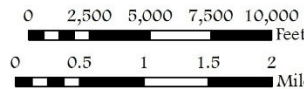
- State Highway
- Road
- Railroad
- Missisquoi Valley Rail Trail
- VAST Trail

**Surface Water Features**

- River, Stream or Brook
- Pond or River



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## APPENDIX D: ENHANCED ENERGY PLANNING MAPS

As required per 24 V.S.A. 4352, the Richford Town Plan contains the following maps. Table D.1 displays the constraints used to create the maps and Table D.2 displays existing electricity generating facilities in Richford. For additional information about the methodology used to create the maps, or for more information about how these maps shall be used, see Chapter 7 – Energy.

<b>Table D.1 – Mapping Constraints</b>		
<b>Solar, Wind and Biomass Maps - Known Constraints</b>		
<b>Constraint</b>	<b>Description</b>	<b>Source</b>
<b>Confirmed and unconfirmed vernal pools</b>	There is a 600-foot buffer around confirmed or unconfirmed vernal pools.	ANR
<b>State Significant Natural Communities and Rare, Threatened, and Endangered Species</b>	Rankings S1 through S3 were used as constraints. These include all of the rare and uncommon rankings within the file. For more information on the specific rankings, explore the methodology for the shapefile.	VCGI
<b>River corridors</b>	Only mapped River Corridors were mapped. Does not include 50 foot buffer for streams with a drainage area less than 2 square miles.	VCGI
<b>National wilderness areas</b>		VCGI
<b>FEMA Floodways</b>		VCGI/NRPC
<b>Class 1 and Class 2 Wetlands</b>		VCGI
<b>Designated Downtowns, Designated Growth Centers, and Designated Village Centers</b>	These areas are the center of dense, traditional development in the region. This constraint does not apply to roof-mounted solar within such designated areas. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	NRPC
<b>FEMA Flood Insurance Rate Map (FIRM) special flood hazard areas</b>	Special flood hazard areas as digitized by the NRPC were used (just the 100-year flood plain - 500-year floodplain not mapped). The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	NRPC
<b>Ground and surface waters drinking protection areas</b>	Buffered Source Protection Areas (SPAs) are designated by the Vermont Department of Environmental Conservation (DEC). SPA boundaries are approximate but are conservative enough to capture the areas most susceptible to contamination. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	ANR

<b>Vermont Conservation Design Highest Priority Forest Blocks</b>	The lands and waters identified here are the areas of the state that are of highest priority for maintaining ecological integrity. Together, these lands comprise a connected landscape of large and intact forested habitat, healthy aquatic and riparian systems, and a full range of physical features (bedrock, soils, elevation, slope, and aspect) on which plant and animal natural communities depend. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan. (Source: ANR)	ANR
<b>Public water sources</b>	A 200-foot buffer is used around public drinking water wellheads. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	ANR
<b>National Natural Landmark – Chazy Fossil Reef</b>	The Chazy Fossil Reef in Isle La Motte has been designated a National Natural Landmark by the US Department of Interior.	NRPC
<b>Municipal Conservation Land Use Areas</b>	Conservation Land Use Districts, as designated in municipal plans, that include strict language that strongly deters or prohibits development have been included as a regional known constraint. The inclusion of this resource as a regional constraint is consistent with the goals and policies of the Northwest Regional Plan. Specific municipal land use districts included are outlined in Section D. The Richford Recreation/Conservation District and Water Supply District are included in this category.	NRPC
<b>Solar, Wind and Biomass Maps - Possible Constraints</b>		
<b>Constraint</b>	<b>Description</b>	<b>Source</b>
<b>Protected lands</b>	This constraint includes public lands held by agencies with conservation or natural resource oriented missions, municipal natural resource holdings (ex. Town forests), public boating and fishing access areas, public and private educational institution holdings with natural resource uses and protections, publicly owned rights on private lands, parcels owned in fee by non-profit organizations dedicated to conserving land or resources, and private parcels with conservation easements held by non-profit organizations.	VCGI
<b>Deer wintering areas</b>	Deer wintering habitat as identified by the Vermont Agency of Natural Resources.	ANR

<b>Hydric soils</b>	Hydric soils as identified by the US Department of Agriculture.	VCGI
<b>Agricultural soils</b>	Local, statewide, and prime agricultural soils are considered.	VCGI
<b>Act 250 Agricultural Soil Mitigation Areas</b>	Sites conserved as a condition of an Act 250 permit.	VCGI
<b>Class 3 wetlands</b>	Class 3 wetlands in the region have been identified have been included as a Regional Possible Constraint. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	ANR
<b>Municipal Conservation Land Use Areas</b>	Conservation Land Use Districts, as designated in municipal plans, that include strict language that deters, but does not prohibit development, have been included as a regional possible constraint. Specific municipal land use districts included are outlined in Section D. The Forest/Conservation District was included in this category.	NRPC
<b>Hydro Map - Known Constraints</b>		
<b>Constraint</b>	<b>Description</b>	<b>Source</b>
<b>National scenic and recreational rivers</b>	Upper Missisquoi and Trout Rivers.	BCRC/NRPC
<b>Hydro Map - Possible Constraints</b>		
<b>Constraint</b>	<b>Description</b>	<b>Source</b>
<b>“303d” list of stressed waters</b>		ANR
<b>Impaired waters</b>		ANR
<b>State Significant Natural Communities and Rare, Threatened, and Endangered Species</b>	Rankings S1 through S3 were used as constraints. These include all of the rare and uncommon rankings within the file. For more information on the specific rankings, explore the methodology for the shapefile.	VCGI

# Utility Service Areas

## Richford, Vermont Act 174 The Energy Development Improvement Act of 2016

This map and the corresponding data is intended to be used to inform energy planning efforts by municipalities and regions. This may also be used for conceptual planning or initial site identification by those interested in developing renewable energy infrastructure. The maps do **NOT** take the place of site-specific investigation for a proposed facility and cannot be used as "sting maps."



### Legend

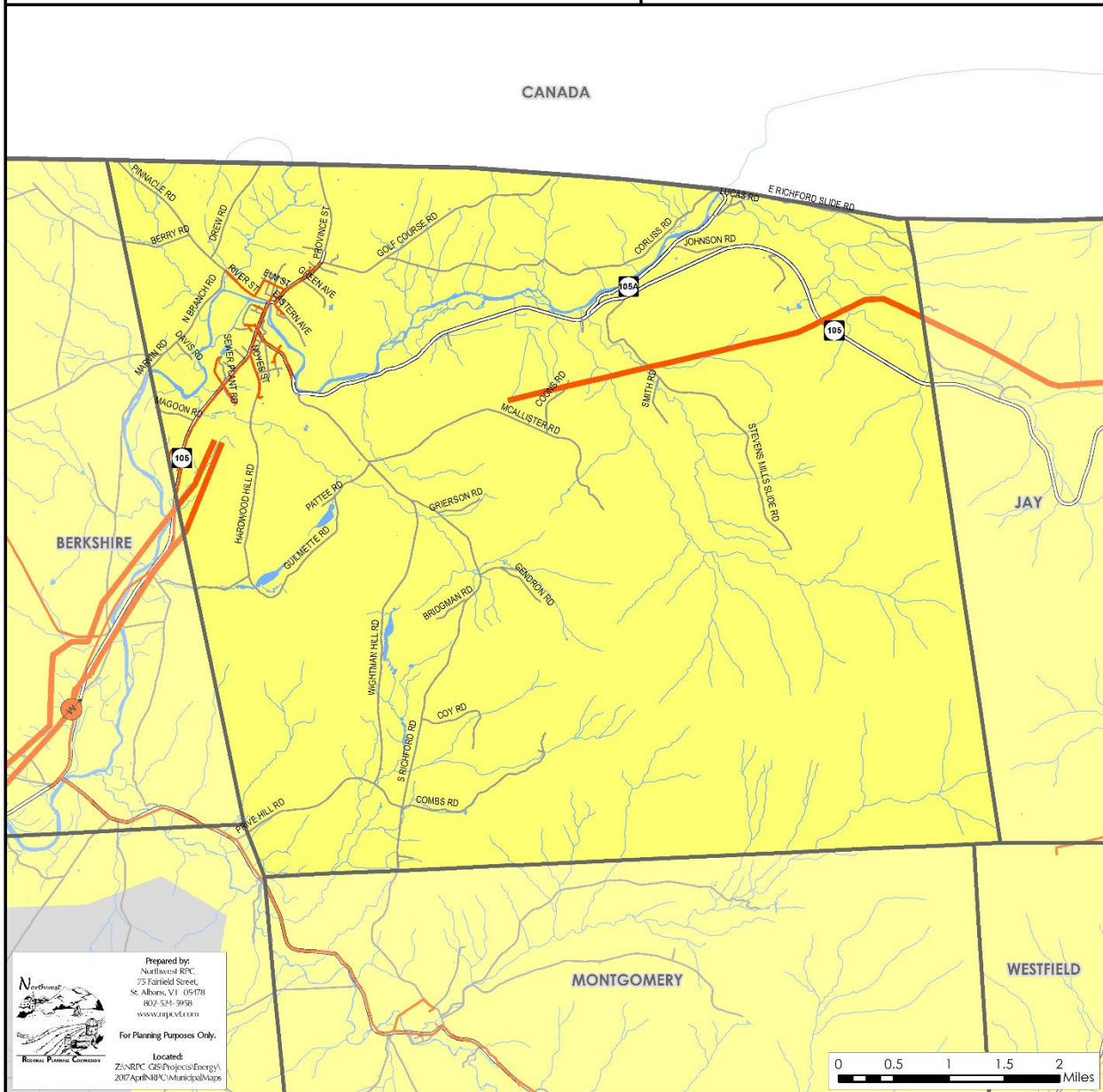
#### Utility Service Area Features

- Green Mountain Power
- Swanton Village Electric
- Vermont Electric Co-op
- Enosburg Falls Electric
- ⊗ Substation
- 3 Phase Power Line
- Transmission Line

### Map D.1

Sources: VCGI

**Disclaimer:** The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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# Transmission & 3 Phase Power Infrastructure

## Richford, Vermont Act 174 The Energy Development Improvement Act of 2016

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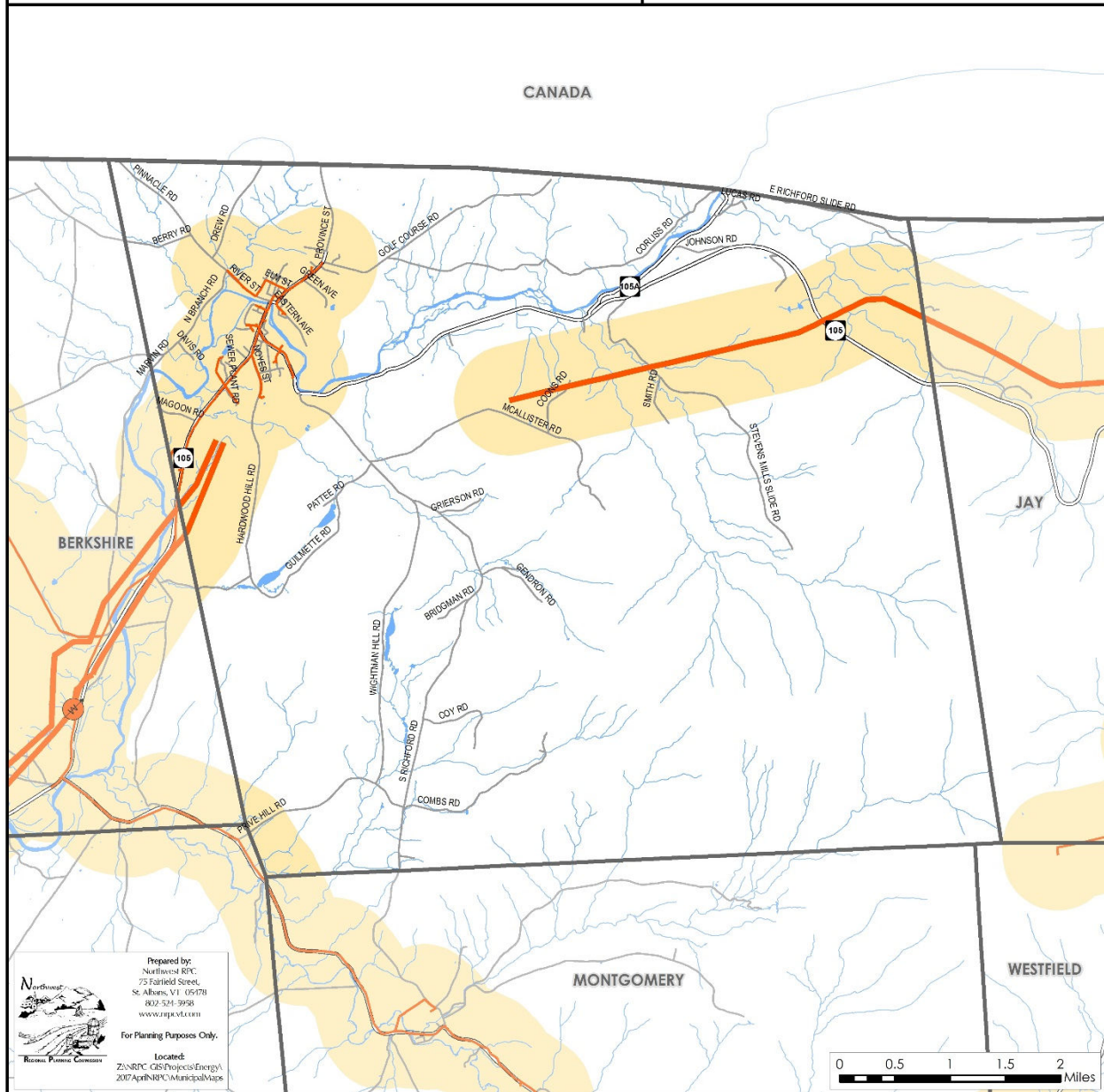
### Legend

- Substation
- 3 Phase Power Line
- Transmission Line
- 1/2 Mile Buffer (3 Phase Power Line & Transmission Line)

### Map D.2

Sources: VCGI

**Disclaimer:** The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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# Existing Generation Facilities

## Richford, Vermont Act 174 The Energy Development Improvement Act of 2016

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### Legend

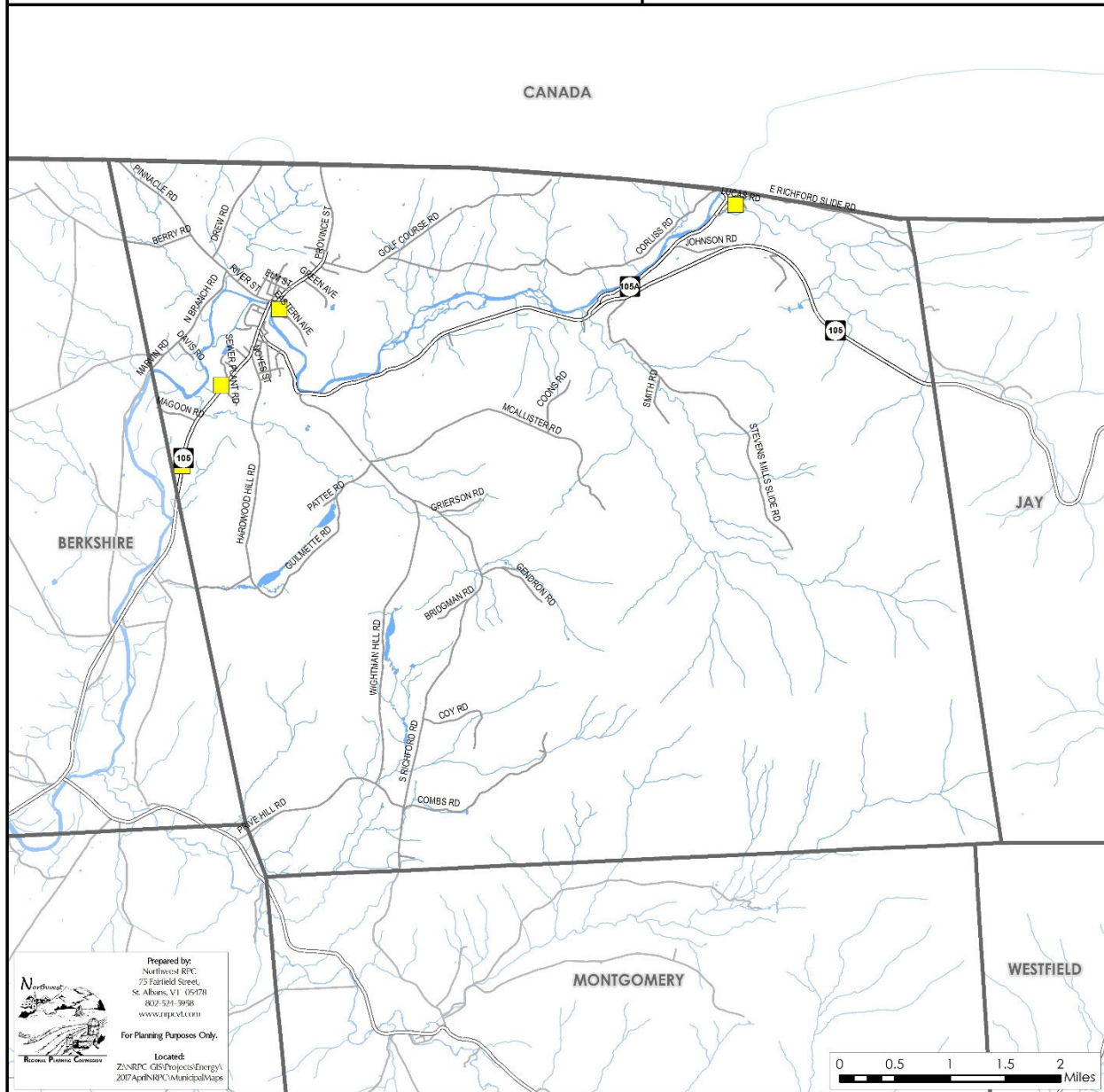
- ★ Biomass Facility
- Hydro Facility
- Solar Facility
- ▲ Wind Facility

### Map D.3

**Note:** Only generators 15kW are shown on the map. A full list of all generators is available.

**Sources:** VCGI

**Disclaimer:** The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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# Solar

## Richford, Vermont

### Act 174

### The Energy Development Improvement Act of 2016

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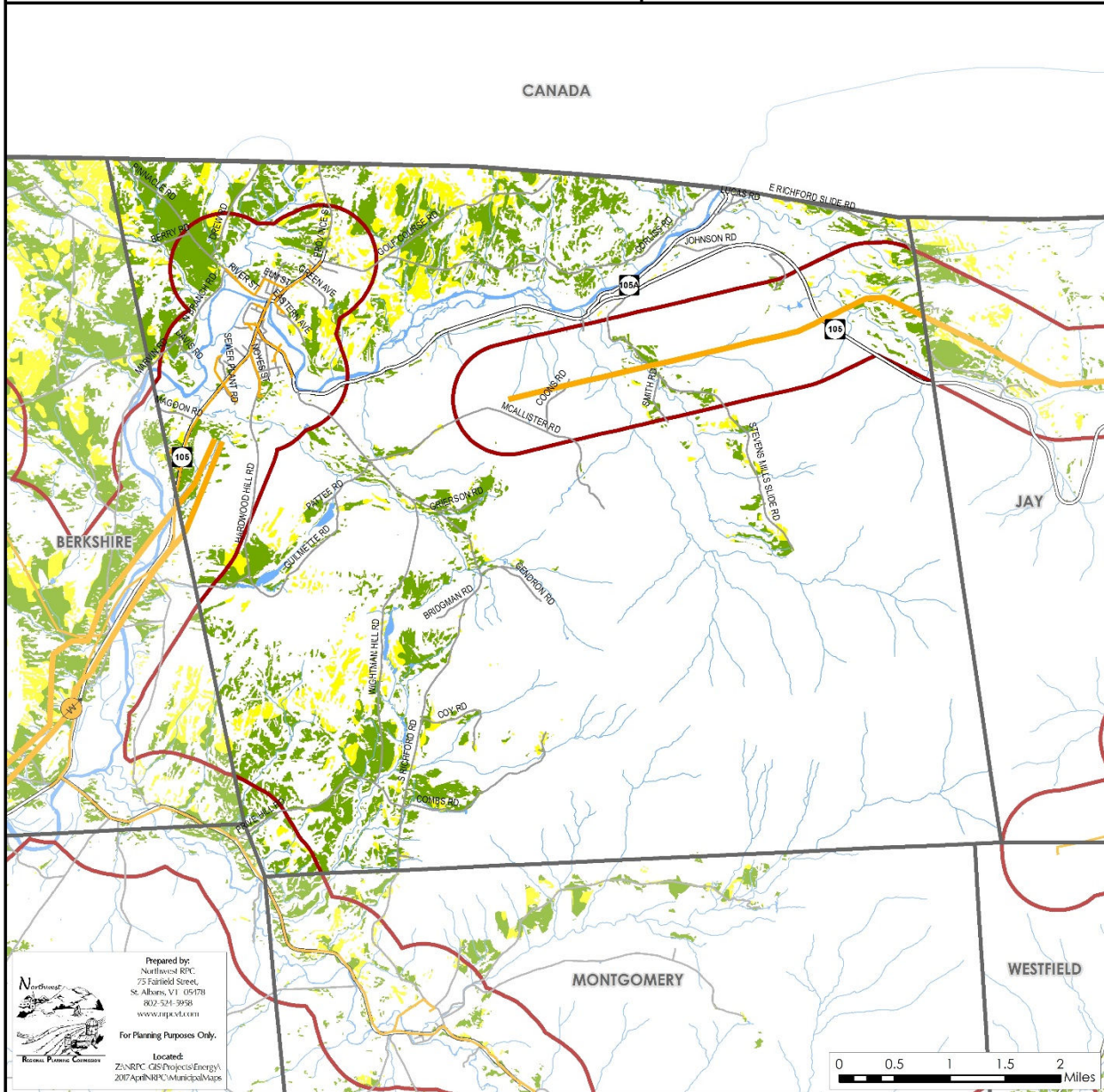
### Legend

- Substation
- 3 Phase Power Line
- Transmission Line
- 1/2 Mile Buffer (3 Phase Power Line & Transmission Line)
- Prime Solar/No Known Constraints
- Base Solar/Possible Constraints

### Map D.4

Sources: VCGI

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# Wind

## Richford, Vermont

### Act 174

### The Energy Development Improvement Act of 2016

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### Legend

- Substation
- 3 Phase Power Line
- Transmission Line

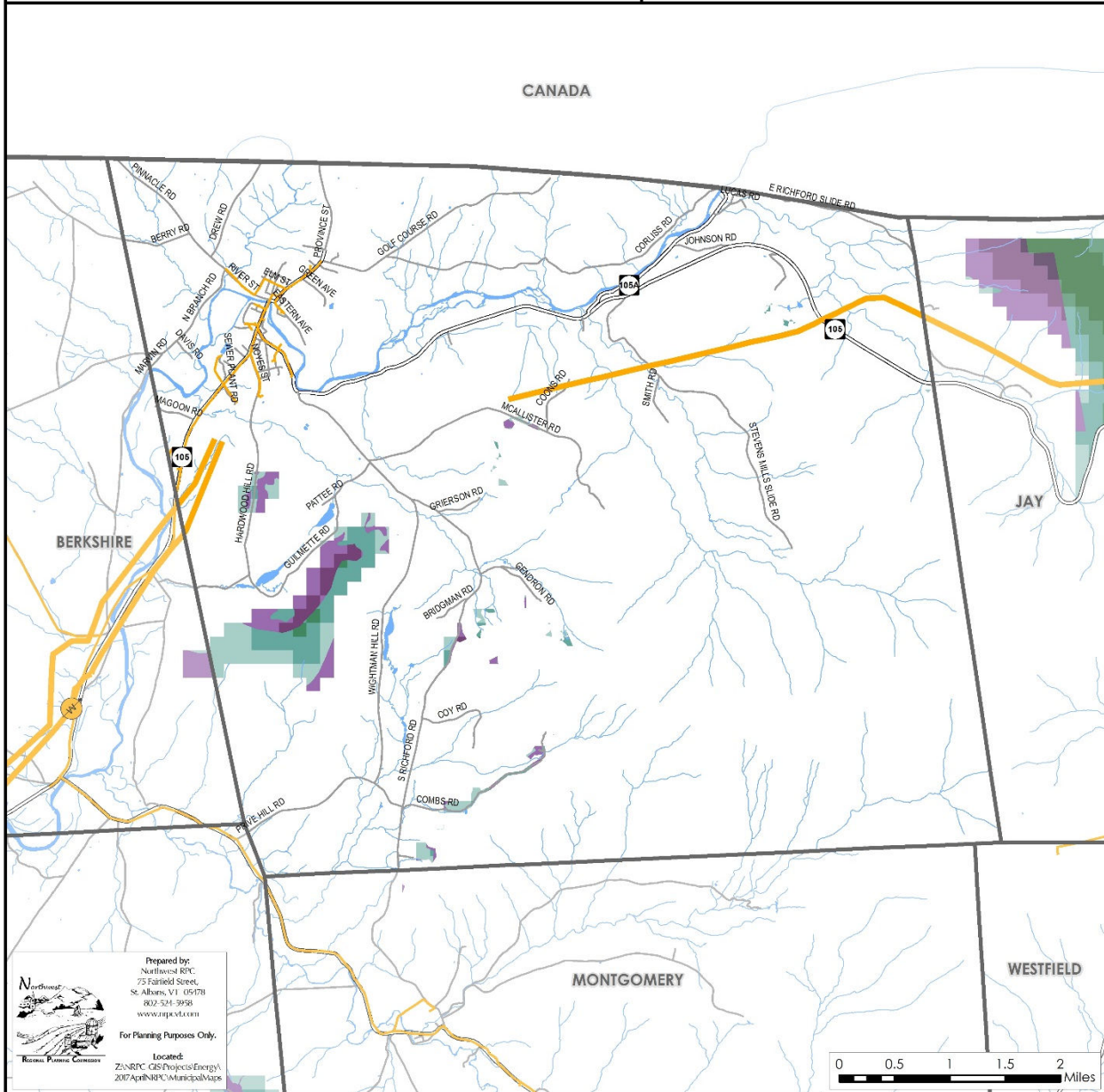
**Prime Wind**  
Areas of high wind potential and no known constraints. Darker areas have higher wind speeds.

**Base Wind**  
Areas of high wind potential and a presence of possible constraints. Darker areas have higher wind speeds.

### Map D.5

Sources: VCGI

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# Hydro

## Richford, Vermont Act 174 The Energy Development Improvement Act of 2016

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### Legend

- Substation
- 3 Phase Power Line
- Transmission Line
- Designated Outstanding Resource Water
- Known Constraint - Designated National Wild & Scenic River
- Possible Constraint - Stressed or Impaired Water
- Possible Constraint - RINAs

### Potential Hydroelectric Facility

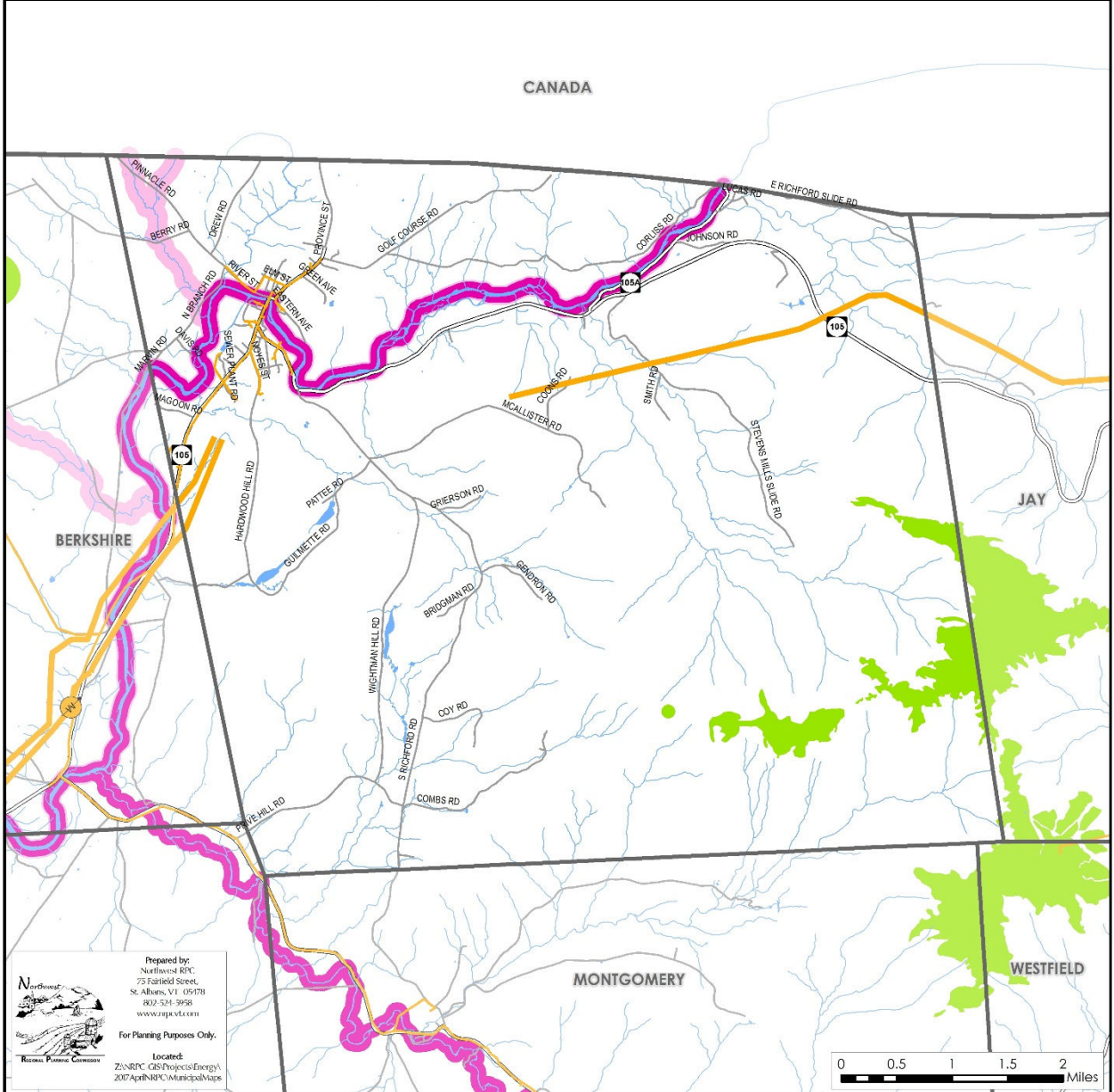
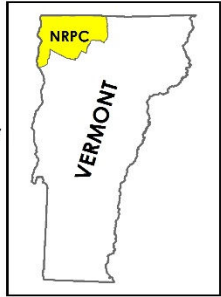
- < 50 kW Capacity
- > 50 kW Capacity
- High Hazard with < 50 kW Capacity
- High Hazard with > 50 kW Capacity

### Operating Hydroelectric Facility

- Dam not on National Wild and Scenic River
- Dam on National Wild and Scenic River

**Sources:** VCGI  
**Disclaimer:** The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on the ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.

### Map D.6



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# Woody Biomass

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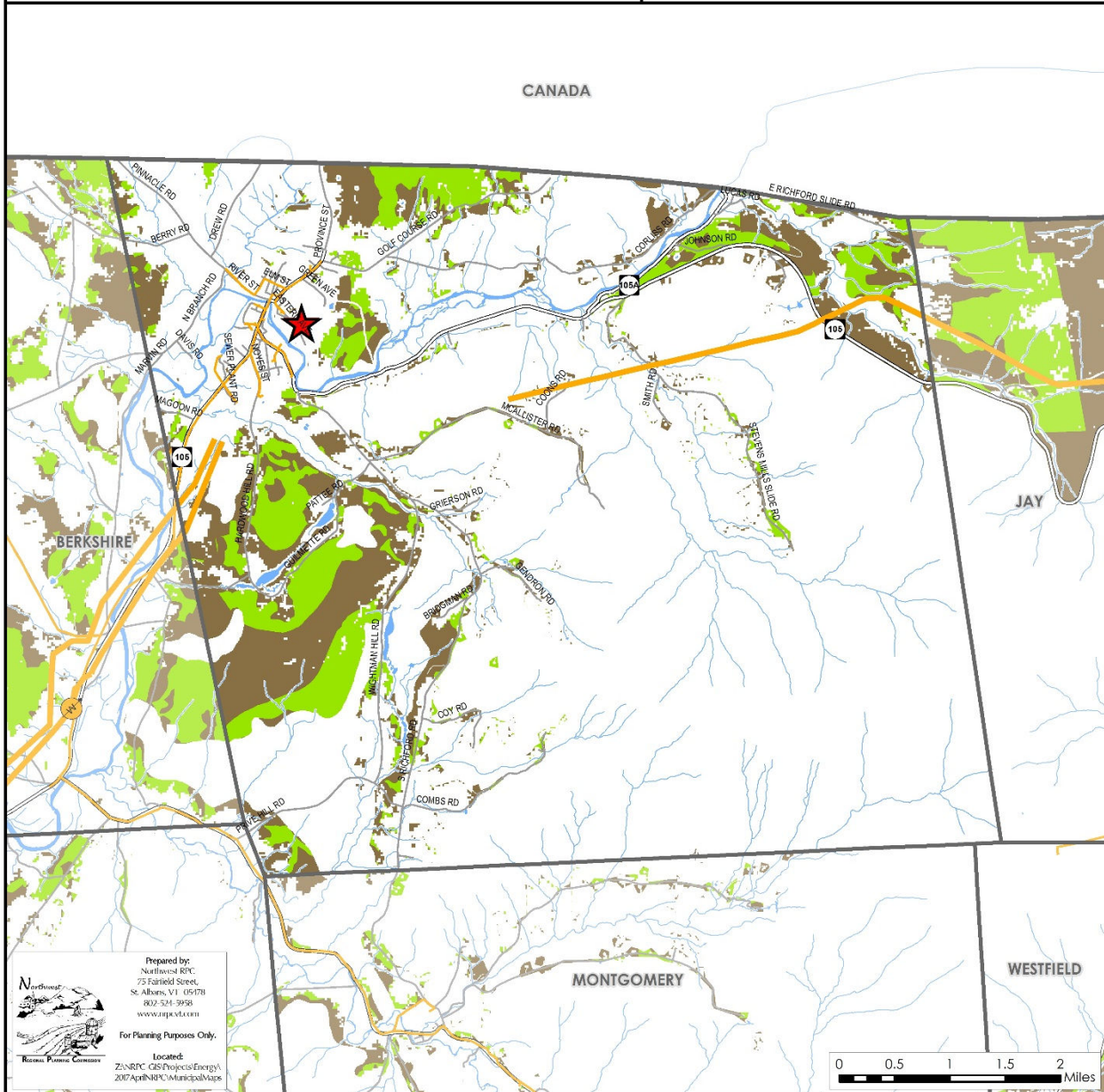


### Legend

- Biomass System
- Cow Power
- Substation
- 3 Phase Power Line
- Transmission Line
- Prime Woody Biomass/No Known Constraints
- Base Woody Biomass/Possible Constraints

### Map D.7

Sources: VCGI  
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**Table D.2 - Existing Generators in Richford**

<b>Category</b>	<b>Sub - Category</b>	<b>Organization Type</b>	<b>Address</b>	<b>City</b>	<b>CPG Number</b>	<b>Capacity kW</b>
Solar	Ground-mounted PV:	Residential	321 Prive Hill Road	Richford	1792	9.1
Solar	Ground-mounted PV:	Residential	26 Lucas Road	Richford	7255	15
Solar	Ground-mounted PV:	Residential	510 Stevens Mills	Richford	6605	4
Solar	Roof-Mounted PV	Residential	463 Hardwood Hill	Richford	2822	4.9
Solar	Roof-Mounted PV	Residential	232 Hardwood Hill	Richford	3030	4
Solar	Roof-Mounted PV	Institution	1 Corliss Heights	Richford	6009	50.7
Solar	Roof-Mounted PV	Business	328 S Main St	Richford	1136	28.8
Solar	Roof-Mounted PV	Business	1645 St. Albans	Richford	1146	15.7