

# Vernon, Vermont 2013 Town Plan



# VERNON 2013 TOWN PLAN

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# 1 – INTRODUCTION

## **Introductory Comments**

The town of Vernon is located in the southeastern corner of Windham County. Vernon has an area of 11,652 acres and a population at the time of the 2010 census of 2206. The altitude ranges from 232 to 1152 feet. Vernon was chartered September 3, 1753, and organized in 1802. The Town is governed by a five-member Selectboard and the town schools are operated by a Board of five School Directors. Vernon belongs to the Brattleboro Area Middle School and Brattleboro Union High School District and is a member of the Windham Southeast Supervisory Union. The first and only nuclear power plant in Vermont is located in Vernon. The Town remains largely agricultural-residential with a sawmill, a rock quarry, several gravel pits, a concrete plant, a new (2011) wood chipping plant, several contractors, and service businesses.

The terms open space, farmland, and forestland used in this plan are as defined in 24 Vermont Statutes Annotated (V.S.A.) § 2741(d):

(3) "*Farmland*" means real estate, exclusive of any housesite, which is actively and exclusively devoted to farming and is operated or leased as a farm enterprise by the owner.

(4) "*Forest land*" means any land, exclusive of any house site, which is under active forest management for the purpose of growing and harvesting repeated forest crops.

(5) "*House site*" means the two acres of land surrounding any house, mobile home, or dwelling.

(6) "*Open space land*" means any land, exclusive of any house site, that does not fall under the definition of "farmland" and "forest land," is not used for commercial or industrial purposes, and does not have structures thereon.

## **Purpose of the Town Plan**

Development activities are frequently irreversible. The Vernon Town Plan is designed to chart a course for development that will benefit the Town and its future generations, thereby avoiding actions which cannot be adequately corrected. The official adoption of this Plan represents a conscious community decision about the Town's future character, priorities for land use, and conservation of natural resources. In addition to guiding the town's future actions, the Plan helps ensure the town's desires are observed in state-level planning and regulatory (Act 250, Section 248) processes.

The Town Plan reflects the collective values and goals of the Town's residents and provides guidelines to ensure that the decisions made at the local, regional and state levels are in concert with these values and goals. The Proposed Land Use map depicts the Town's vision of the desired future of Vernon. It, in conjunction with the goals and policies in the Plan, is a tool for Vernon to guide development and protection of valued resources. The Planning Commission cannot predict a fixed plan for the indefinite future. Therefore, the planning process must be continuous so that the policies will evolve to guide the Town's development and utilization of its resources. Vermont Yankee is presently operating under its NRC-renewed operating license, but has announced plans in August 2013 to shut down operations and begin decommissioning under SAFSTOR at the end of 2014. The Planning Commission will submit a report of the Commission's findings to the Vernon Selectboard, the Windham Regional Planning Commission and

the Department of Housing and Community Affairs whenever a Plan update proposes changes in land use designation.

## **2 - STATEMENT OF OBJECTIVES, POLICIES, AND PROGRAMS**

The objectives of the Vernon Town Plan are:

1. To accommodate the changing needs of the Town through a continuous and comprehensive planning program;
2. To provide for a variety of land uses that will allow the blend of rural, residential, scenic, agricultural, commercial and industrial as is presently the character of the Town;
3. To manage Vernon's growth to a level that prevents uncontrolled development and that is consistent with Town's ability to provide for satisfactory educational, highway, public safety, and other services;
4. To ensure that the basic needs of health, safety, education, welfare, and housing will be met and maintained at satisfactory levels;
5. To encourage compatible and coordinated development activity that will allow the blend of rural, residential, scenic, agricultural, commercial and industrial uses to enhance public and private investments;
6. To encourage the continued use of lands for agriculture and forestry in order to keep these resource areas available and to help meet existing and future needs for food, forage and fiber, to preserve the rural character of the Town, and to provide for diverse economic opportunities in farming and forestry;
7. To protect the present character of the Town through thoughtful management and guidance of new development;
8. To provide for conservation of the Town's natural resources and the protection of sensitive areas in order to ensure continued availability of a sound resource base for the enjoyment and well being of all Vernon residents and future generations;
9. To protect areas of special educational and scientific value and to conserve sites and structures of historical and architectural significance;
10. To encourage the development of those industrial and commercial activities which are compatible with the Town's rural character;
11. To require that, where possible, public utilities and transportation facilities combine the use of corridors in order to minimize the impact on the environment and to promote desired development patterns;
12. To ensure that any project that will increase the capacity of any existing town highway or the development of any new highway will be consistent with the general character of the Town while perpetuating the quiet, picturesque and rural nature of the town of Vernon; and
13. To direct federal and state agency review and permitting processes to protect Vernon's interests.

### **Structure of the Town Plan**

The Town Plan is comprised of statements of objectives which provide a direction for the future. The objectives are given definition through statements of policies and

recommendations. The policy statements establish guidance for the Town in order to achieve the desired quality of life.

Town policies shall also provide guidelines to the Town Planning Commission and Vernon Selectboard in developing subdivision criteria and other Town ordinances and permits; to guide the Windham Regional Commission and state agencies in their planning efforts. These policies will further assist the District 2 Environmental Commission in judging applications submitted under Act 250 and the Public Service Board in judging petitions submitted under 30 V.S.A. § 248. Finally, these policies will help to guide those interested in subdividing and developing land in the Town of Vernon.

An addendum to the Town Plan provides greater detail, clarity and historical perspective for selected topics covered in the Town Plan.

### **3 - COMMUNITY PROFILE**

#### **Vernon Town History**

A township, the northwestern part of which eventually became Vernon, first named Squakheag after the local Native American tribe and later re-named Northfield, Province of Massachusetts Bay, was granted in the year 1672.

Conflict between local Native Americans and early settlers in the Connecticut River Valley in the early 1700s resulted in the construction of the first permanent European settlement in present day Vermont. In 1724, Fort Dummer was constructed and garrisoned just to the north of present day Vernon by the Province of Massachusetts as protection for the Town of Northfield.

A series of smaller fortifications or blockhouses were constructed on both sides of the river between Fort Dummer and Northfield in the late 1730s and early 1740s. Josiah Sartwell and Orlando Bridgman were two of the first inhabitants who constructed blockhouses several miles south of Fort Dummer. Many of these settlers were Massachusetts colonial soldiers and their families originally garrisoned to protect Northfield from Native American incursions

The town of Hinsdale was chartered September 3, 1753, and it included land on both sides of the river. The charter was altered, or another issued, Sept. 26, 1753 by which the grant was divided into two towns with both towns called Hinsdale. The first town meeting was held the day before with Orlando Bridgman being appointed town moderator and voted as treasurer with Ebenezer Hinsdale voted as town clerk.

In many cases, the early settlers of Vernon were veterans of the wars between Great Britain and her colonies with the French and their allied Native American tribes in the 1740s and 1750s. Prior to 1760, and Great Britain's defeat of France in North America, the constant threat of Native American raids slowed permanent settlement of southern Vermont. At this time, 1760, settlement began in earnest in Vernon along the river. Joseph Stebbins, Samuel Stratton, Eleazar Patterson, Amos Tute, and others constructed



residences in Vernon during this time period. A large proportion of these settlers of Vernon immigrated from Northfield and Northampton, Massachusetts.

The New Hampshire Grants expanded between Lake Champlain and the Connecticut River in the 1750s. Soon after, the territory of Vermont was claimed by the Province of New York. A struggle between the Provinces of New Hampshire and New York was not settled until 1764, when it was decided by the King George III in favor of New York. The west bank of the Connecticut River was to be the western boundary of New Hampshire. The west part of Hinsdale was now in New York while her neighbors across the river remained with New Hampshire. The population of the town was about 100 inhabitants by then.

By the 1780s, the town size had increased to over 400 residents, with most of the newer settlers coming from Western Massachusetts and Connecticut. New settlers by the names Jesse Lee, Eliakim Stebbins, Ebenezer Scott, Nehemiah Houghton, and the Hunt brothers, Jonathan and Arad, constructed residences in Vernon. The Hunt family was actively involved in land speculation and politics in the new Republic of Vermont and at the time owned thousands of acres of land in Vermont granted by the governors of both New Hampshire and New York. The Hunt brothers along with John Bridgman served as town representatives to the emergent Vermont republic.

By 1789, the State of New York acknowledged the independence of Vermont, thus paving the way for the Vermont to enter into the United States as the 13<sup>th</sup> state in 1791. John Bridgman, son of Orlando Bridgman, not only served Vernon as a representative, but also for many years was a county court judge, the Town Clerk and also was commissioned as Justice of the Peace. His house, located close to the location of the old fort, burned on June 11, 1797 where the flames claimed not only Vernon's earliest land records, but also the life of his daughter, Miranda.

Throughout the 1700s, by diversity of claims and boundary lines, Vernon was successively in Northfield, Massachusetts (1672), Hinsdale, New Hampshire (1740), Hinsdale, Cumberland County, New York (1764), Hinsdale, Republic of Vermont (1777), Hinsdale, State of Vermont (1791). Since October 21, 1802, it has been called Vernon, Windham County, Vermont. In that year the voters in town instructed their representative, Lt. Gov. Jonathan Hunt, to name this town Huntstown; but his wife suggested the name of Vernon, possibly after President George Washington's home of Mount Vernon. Suffice it to say, Vernon endured a great deal of political turmoil in its first 100 years of existence, all of which illustrates Vernon's bonds to the towns of Hinsdale and Northfield over 250 years later.

The population size of Vernon climbed from about 500 at the turn of the 19<sup>th</sup> century to a high of over 800 in 1850. With the advent of the railroads and the opening of the West, the population of Vernon, as well as other communities in New England, began to decline. However, Vernon was more fortunate than other New England towns as it possessed more flat, fertile land better suited for agricultural production than many other communities, as well as a transportation network firstly of the Connecticut River and then

the new railroad. Even so, it was more than a century before Vernon's population exceeded 800 people once again.

Through the changes of the 1800s, Vernon remained an agricultural-based community with some commercial enterprises and light industry. Agricultural products were diversified and small industry was usually home-based. Many residents supplemented income from farming by either performing a trade, such as being a blacksmith, butcher, or carpenter, or making products like shoes, clothing, and leather products. Farming consisted of growing diversified crops such as rye, oats, beans, potatoes, corn, and apples made into cider. Livestock such as sheep, hogs, chickens, dual-purpose cattle, and horses were raised for meat, eggs, and dairy products, such as cream and butter. Cash crops such as tobacco and hops were also grown. There were a number of grist and saw mills in town along with a cider mill. There was also a brickyard in South Vernon.

A stage route ran through this town from Worcester, Massachusetts to Keene, New Hampshire, and to Brattleboro, from 1837 until about 1861. The Vermont and Massachusetts Rail Road began operation in Vernon in 1849. Train depots opened for business in South Vernon and in central Vernon. This led to stimulating commercial growth in the town, somewhat making up for a loss in population.

A number of Irish immigrants moved to town to work for the growing railroad industry. The Vernon Hotel was built in 1850 in the center of town by Jarvis F. Burrows. Later, at the south end of Vernon, The South Vernon House was built in 1872.

The 1890s saw a shift of farming in the town of Vernon from diversified crop and livestock production to an emphasis on dairy farming. Cream was shipped in cans economically via rail to Springfield, Massachusetts and other urban areas to the south.

In 1909, the Vernon Dam began to provide electricity to meet increasing demand for energy used by manufacturing centers in Massachusetts. At the turn of the century, it was recognized that there was a need for alternative forms of energy to supplement expensive coal-based steam generation. This hydro-electric plant would deliver power via long-distance transmission lines to industrial customers in Massachusetts.

In 1959, Interstate 91 reached southern Vermont, spurring tourism for the state and eventually new permanent residents. Vernon, for better or worse, did not merit an entrance or exit ramp to the highway and as such was somewhat insulated from the influx of tourists and immigrants.

Vermont Yankee Nuclear Plant was constructed from 1968 to 1972. It went online November 30, 1972. The new power plant had a profound impact on the town by contributing both tax money and skilled new residents who became involved in civic affairs of their new town.

**Population Trends and Projections**

Vernon has experienced a relatively high rate of population growth over the past two decades when compared to Brattleboro, Guilford, and Windham County as a whole. As Brattleboro has expanded its commercial and industrial bases, continuing to develop as a major regional economic center, the smaller and more rural outlying communities, such as Vernon, have accommodated much of the associated residential growth.

Vernon's population growth from 1980 to 2010 was 88%, from 1,175 to 2,206, a rate more than double that experienced in Guilford (38%, from 1,532 to 2,121), while at the same time Brattleboro grew far less (1%, from 11,886 to 12,046). From 2000 to 2010, Vernon's population increased 3% (2,141 to 2,206), Guilford's increased 4% (2,046 to 2,121), and Brattleboro's increased .02%. During the same time frame of 2000 to 2010, the region experienced a 4% population decline (46,449 to 44,513). With the Entergy VY closure at the end of 2014, Vernon expects a population decline based on employee transfers to other sites and shifts in employment trends. This will impact a large sector of the Windham Region as well.

Vernon's population was 4.9% of the region's 44,513 people in 2010, while Guilford's population accounted for 4.7%, and Brattleboro's was 27.1%. In 1990, Vernon ranked as the eighth largest town in the Windham Region with a population of 1,850; in 2000 the Town ranked as the sixth with 2,141; and in 2010 Vernon ranked fifth with 2,206.

**Table 1. Population**

Age	1980	1990	2000	2010	1980 - 1990	1990 - 2000	2000 - 2010	1980 - 2010
< 18	338	495	583	546	46 %	18 %	- 6 %	61%
18-64	605	1,087	1,270	1,267	80 %	17 %	0 %	109 %
65+	232	268	288	393	16 %	7 %	36 %	69 %
Total population	1,175	1,850	2,141	2,206	57 %	16 %	3 %	88 %

SOURCES: VT State Data Center (2010), U.S. Census, SF3 (2000), STF3 file (1980 and 1990)

The town's dramatic increase in population growth is evident in an evaluation of the number of sewage permits issued each year for the construction of new homes in Vernon. Between 1983 and 1989, approximately 25 new homes per year were constructed in Vernon. With an estimated 2.9 persons per household, new construction alone in Vernon has contributed significantly to the community's overall population growth. Since this plan was first completed, additional data is now available and provided in this section.

**Table 2. Septic Permits Issued for locations in the Town of Vernon.**

YEAR	NUMBER OF NEW PERMITS	NUMBER OF REPLACEMENT PERMITS	TOTAL PERMITS
1990	20		20
1991	10		10
1992	15		15
1993	8		8
1994	13		13
1995	24		24
1996	22		22
1997	3	10	13
1998	7	7	14
1999	8	15	23
2000	9	12	21
2001	11	8	19
2002	6	8	14
2003	6	5	11
2004	12	5	17
2005	10	6	16
2006	12	13	25
2007	5	7	12
2008	5	3	8

SOURCE: Vernon Town Clerk Records

It is unlikely there will be continued growth at a rate similar to that experienced between 2000 and 2008. Since the state assumed responsibility in 2008, the town no longer issues such permits.

**Recommendations:**

1. The Town should monitor the rate of development of new housing units through a periodic review and evaluation of new Wastewater and Potable Water Supply Permits issued by the state.
2. Applicants for development and large subdivisions should be required to disclose their best estimates of growth in population closely related to the impact of their development proposals as part of the Act 250/§ 248 processes.

## 4 – POST VY RESILIENCY PLAN

### Introduction

In December, 2010, the Town of Vernon applied for a Municipal Planning Grant through the Vermont Agency of Commerce and Community Development, to expand the Vernon Town Plan, to include a significant component regarding pre and post shutdown planning related to the 2014 closure of the Vermont Yankee Nuclear Power Station. The purpose was driven by the recognition of the fact that the town's largest employer and tax generator will be closing soon. The town recognized the need to understand the range of possible impacts of the closure, how impacts might be mitigated, and what the land use implications of the eventual closure might be. The goal is to provide the Town of Vernon with objective information about the eventual closure of the plant such that it can make its own informed decisions.

This edition of the Town Plan has been prepared over a number of years. Significant time and money has been spent to develop the Plan. It was ready to start the review and approval cycle necessary to meet local, State and Federal commitments. The announcement made by Entergy to shut down and de-fuel the Vermont Yankee reactor in the fall of 2014 took everyone by surprise.

Because of the importance of the Federal commitments for approval of the new plan, and the fact that there is sufficient time later to revise the Plan for the upcoming shutdown, the Plan will:

- Go into the review and approval cycle as previously scheduled.
- After this revision is approved, the Plan will be revised and approved as necessary to reflect the VY shutdown and support the Town's needs during the NRC licensing process for the permanent shutdown.

### Major Findings

The following is a summary of the major findings of this analysis, and an overview of the impacts the Town of Vernon should anticipate when the Vermont Yankee nuclear power station permanently ceases operation.

1. The town revenue stream will be significantly impacted, though the acuteness of the impact will depend upon how the plant is valued, and what taxes are assessed, as it is decommissioned. The town has a history of retaining experts to negotiate valuation and assessment with the plant, and this capacity will need to be retained well beyond the announced closure of the plant.
2. The impacts on the town revenue stream could be mitigated somewhat by the fact that VELCO anticipates no change in the need for its substation and switchyard located within the Vermont Yankee site after the plant closes. One could reasonably assume that the closure of the plant will not affect the valuation of the VELCO assets.
3. The town should assume the site will not be available for redevelopment. Precedent indicates that spent fuel storage on the site of the dismantled plant will preclude

redevelopment. There are also constraints related to what structures might remain a few feet below grade upon the completion of decommissioning. At a minimum, the town should assume that the site will not be available for redevelopment for a period of at least 10 years after the intent to cease operations is announced. It will take at least this long to develop, review and approve the decommissioning plan, and complete the dismantlement of the facility.

4. Vernon's future without an operating nuclear plant lies within the larger town and its residents, not the Vermont Yankee site, and it should plan accordingly. The town should capitalize upon its current town planning process to define what its future should be, and what it will take to make that future a reality. While the eventual loss of revenue from the plant will and should be part of the discussion, it is the town's future that should be the driver of the discussion. Revenue requirements should be driven by the needs necessitated by the town's vision for itself. Depending on what the vision and those needs are, revenue requirements may be more or less than what they are at present.
5. When a nuclear power station ceases operation, the tendency is for some of those employed by the plant to find employment elsewhere in the industry, while others will elect to stay in the community. While some unemployment may result from the plant closure, it is the departure of employees and their families from the town that is of particular concern, and the rate at which these residents might leave. There is some thought that the decommissioning strategy chosen by the plant owners will influence the rate at which those presently employed by the plant will either lose their jobs or elect to leave. There are several decommissioning scenarios, two of which are DECON (dismantlement without waiting for decay of radioactive materials) and SAFESTOR (a period of time to allow decay of radioactive materials followed by DECON). Entergy VY has announced that SAFESTOR will be the option they will use at the end of 2014.
6. There will be heavy dependency on contractors when the dismantlement of the plant begins, but Vernon has few businesses that can capitalize on the presence of these itinerant workers. Development of housing for these workers within Vernon may become an issue the town will need to address. The conversion of single-family residential homes to multi-family homes to provide housing represents both an opportunity and a challenge that the town may choose to regulate, as does the potential for the development of new multi-family housing units.
7. It is up to the town to establish a relationship and communications process with the owners of the plant to ensure the town's interests are known. There is no requirement in the regulations that govern decommissioning that compel the plant to engage the host community in discussions about the impacts of the closure or the mitigation thereof beyond the public meetings and hearings that will be held as part of the post-shutdown decommissioning activities report (PSDAR) review and approval process. The town and plant are strongly encouraged to emulate the community advisory panel (CAP) that was established by other plant closures

8. The Town of Vernon and Vermont Yankee have a history of common advocacy around policy issues related to the plant. It is likely that the nature of this relationship will continue in the best interest of the Town of Vernon. Having a CAP or similar relationship and communications structure in place after the announcement of the end of plant operations will help the town know where interests might diverge, and provide a forum through which compromise might be negotiated.

### **Recommended Actions**

1. **Town Plan.** Use the town plan process as a means by which to engage the citizens of the town in a conversation about what they want the town to become and what needs to happen to make that vision a reality. The current draft represents a major effort and deliberation by the Vernon Planning Commission and is an excellent starting point for this conversation. While the plan shouldn't ignore the existence of the plant, it should realize the town's future without that of the plant. The fate of the plant and the fate of the town are not the same.
2. **Capital Improvement Program.** A capital improvement program (CIP) is a non-regulatory tool the town can use to make decisions about where to locate, when to build, and how to pay for major capital investments such as new roads, parks, or public buildings. The capital improvement program links a municipality's long-term development plan with its annual budgeting process and can prevent budget and tax rate fluctuations by scheduling expensive capital projects over several years. This CIP would build upon the vision, goals, and objectives identified in the town plan, and would enable the town to work through what investments are sustainable in both the near and long-term.
3. **Property Tax Stability Plan.** The development of a plan that provides guidance as to how the town will respond to the loss of revenue from Vermont Yankee and what the likely outcome will be for those who pay property tax in the town would be beneficial to current property owners, prospective property purchasers, and town officials. This plan would best be informed and developed upon a foundation of both the Town Plan and the Capital Improvement Program, as both would inform long-term municipal investment needs, maintenance expectations, and related revenue demands. This plan should include an assessment of town services in a post-Vermont Yankee era to determine how demand for services will change, and what the town can realistically be expected to support. An informed projection of the likely impact of the plant closure on taxes would reduce uncertainty for everyone involved, and could mitigate some of the impact of the closure on the local real estate market. Potential buyers may stay away from home and other real estate purchases in the town if there is substantial uncertainty as to what the closure will mean for their taxes. This concern likely has present-day consequences. The town can do little to change the opinion of those who might be averse to purchasing property in a community where a nuclear plant, or site, exists, but it is within the town's power to develop a plan that establishes a basis for future municipal taxation. The greater concern may not be that

taxes will increase. The greater concern may be uncertainty as to *how much* taxes will increase.

4. **Community Advisory Panel.** It is not too soon to establish a Community Advisory Panel (CAP) with the plant such as that established by other towns affected by closures. The more the town can engage the plant owners in discussions about what to expect when the plant eventually closes, the better. It is strongly advised that Vernon officials visit communities that have experienced decommissioning and meet with their respective CAPs. There is nothing in the regulatory process that requires the plant to engage the town or the general public in decommissioning discussions beyond the public meetings and hearings required by the NRC review and approval process. The initiative to create a Vernon-Vermont Yankee CAP is up to the town. By learning from the experience of other municipalities Vernon can better position itself to make its interests known and attempt to negotiate its needed outcomes.

*[A full version of the Post VY Resiliency Plan can be reviewed in the town office.]*

## 5 - ECONOMY

### **Employment and Economic Base**

According to the 1980 Census of population, there were an estimated 563 Vernon residents age 16 and above employed in the regional work force. As of the 1990 Census, approximately 37% of the community's workers were employed by businesses and industries located within the Town of Vernon, while an estimated 46% commuted to Brattleboro, and 11% travelled out of state to neighboring communities in New Hampshire, Massachusetts, and Connecticut for employment opportunities. The U.S. Census Bureau 2008-2012 American Community Survey 5-Year Estimate showed the labor force 16 and older numbering 1148 in the town of Vernon; of these 23% worked in Vernon (5% of total workers worked at home), 60% worked in another town in Windham County, 83% worked in Windham County (including Vernon), and 16% worked outside Vermont.

### **Economic Growth**

Of significant importance to many of Vernon's residents today is the rather unique situation, which faces the community in the years to come. The Vernon community will be challenged with the task of reevaluating its level of municipal spending and with identifying alternative means of generating local tax revenues in order to offset the decrease in Entergy NE/Vermont Yankee's sizeable contribution to the Town's tax base.

Because of the potential future need to stabilize the local tax base and to continue to provide employment opportunities to Vernon's residents, the Town anticipates the potential need for additional industrial and commercial activities in the future. Of great concern, however, is that new industrial and commercial growth relates satisfactorily to the rural agricultural-residential character of the community. A 1990 survey of local residents clearly indicated that the protection of Vernon's rural character and agricultural resources should be an important consideration in planning for the future of Vernon. The



Farmland Protection Advisory Committee has received funding and support at Annual Town Meetings.

**Recommendations:**

1. The Town should consider the formulation of an industrial development plan which evaluates the potential social, physical, and economic impacts of an industrial park on the community in terms of effects on the natural environment, and on residential development, on public facilities and services, and on the local tax base.
2. The Town should control the location and aesthetic quality of future agricultural, commercial and industrial development in order to minimize conflicts with surrounding uses.
3. Performance standards should be established to address the problem of adverse environmental impacts including, but not limited to, excessive noise, odor, dust, smoke, vibration, glare, water pollution and other nuisances; design standards should be implemented regarding access and parking, landscaping, screening setbacks, height limitations, signage, and exterior lighting.
4. The Town should pursue discussions with appropriate representatives of Entergy-Vermont Yankee regarding the possible re-use of the power plant site for commercial and industrial development following decommissioning.

**Childcare**

In June 2003, Public Act 67 amended Chapter 117 of 24 VSA (Municipal and Regional Planning and Development) to add the following goal number 13:

*“To ensure the availability of safe and affordable child care and to 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.”*

Child care, in this context, encompasses children ages birth to twelve.<sup>1</sup> Ensuring accessible, affordable, quality child care is integral to sound economic development planning. Recognizing the reality that most families lead lives that require full or at least part-time child care outside of their homes, this Plan recognizes child care as an important community need and offers guidance on how to plan to meet the need.

This Plan recognizes that the accessibility, affordability and quality of child care in the area affects parents’ ability to enter the workforce, be productive while at work, and remain employed. It also notes that the child care industry itself contributes to the local economy, through the jobs it sustains, the revenues child care workers take in, and the taxes they pay.

There are several childcare programs in Vernon. The Recreation Department offers a preschool program for 3-4 year olds at the Town Office building. During the school year

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<sup>1</sup> In conformance with the Vermont Child Care Services Division definition of child care.

there is an after school program at the elementary school. In the summer there are camp programs at the Recreation Area.

**Policy:**

It is the policy of the Town of Vernon to foster the availability of safe and affordable child care and to integrate child care issues into the planning process,

**Recommendations:**

1. If local information about child care supply and demand is not adequate (including infant, toddler, and preschool age care) then the town should consider conducting a childcare needs assessment.
2. The Town should maintain an inventory of all childcare programs in the town and their capacity. The local childcare resource and referral agency can provide a list of state-regulated family and center-based childcare programs, and their capacities ([www.vermontchildcare.org](http://www.vermontchildcare.org)). To the greatest extent possible, the town's inventory of childcare programs should include unregulated childcare programs, those programs serving three families or fewer which are not regulated by the state. It also would be prudent to share this information with the fire department in case of an emergency.

## 6 - EDUCATION

### **School and Library**

Education is probably the single most important community service provided by the Town of Vernon, in terms of both expense and social benefit. Vernon Elementary School is a large (57,000 sq. ft.) brick building situated on 10 acres of land on Governor Hunt Road. The school contains 15 regular sized classrooms, as well as smaller classrooms for Chapter One, Speech, and Special Education. In addition to classrooms, the school also contains a guidance room, music room, art room, gymnasium, media center, computer room, cafeteria with stage, teachers' work room and lounge, principal's office, secretary's office, director of recreation's office, custodial work room and office, as well as a large kitchen with walk-in cooler and freezer, food storage room and office.

A separate large storage shed that used for larger equipment and some recreation equipment storage. There is a baseball diamond with backstop, scoreboard, bleachers and protective fence located at the rear of the school property and is maintained jointly by the school and recreation department. The school has two well-equipped playgrounds and two parking lots.

The Town of Vernon owns one school bus. It is housed at the Town Garage. The children are transported by contracted buses to the school.

The Vernon Free Library moved in late 1970 from its quarters in the former Center School to the new Town Offices and Library Building where it now resides in the north

wing, across from the Town Clerk’s office. The Library provides many services to residents of all ages including books, DVDs and CDs, periodicals, computers with internet access through a new Fiber Optic connection completed in January, 2014. Free computer classes and assistance with electronic devices is given by a knowledgeable staff. Through the Library’s association with the Vermont Department of Libraries, books and other items may be borrowed from libraries all over the state as well as out-of-state institutions.

**Recommendation:**

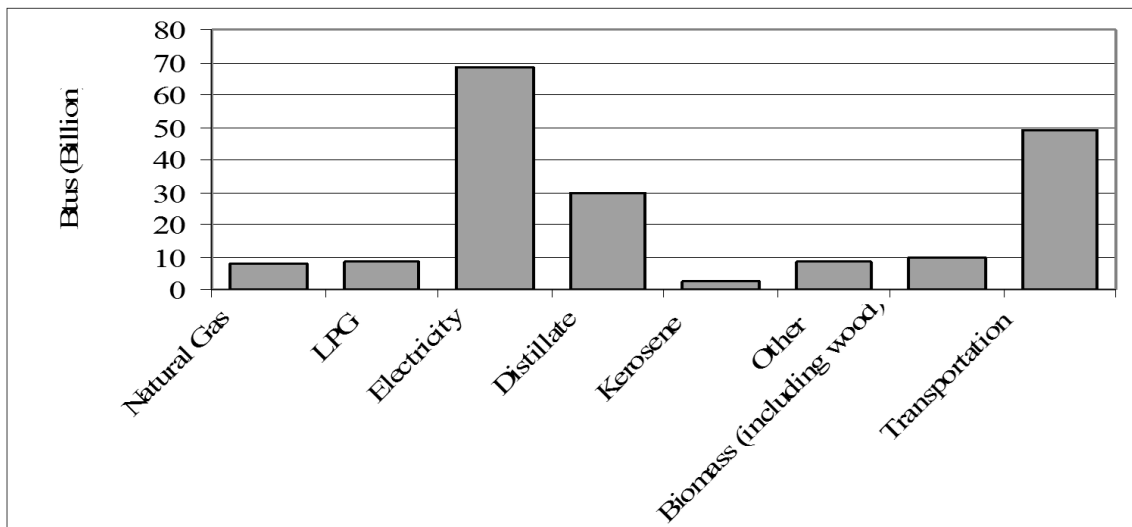
The full use of present school facilities should be considered to offer adult education, information programs and physical fitness opportunities. Such activities could take place during the school vacations and evenings. The use of school facilities should be made available for private activities for a fee.

*[See Addendum Section for additional information.]*

**7- ENERGY**

Facilities located in the town of Vernon generate over one third of the electric power generation used in the entire state of Vermont. In addition to the nearly 700 wage earners employed at the nuclear power station and the Vernon hydroelectric dam, significant tax dollars are paid both the state of Vermont and, to a much smaller extent, to the town of Vernon by both Entergy Vermont Yankee and TransCanada (owner/operator of the hydro station).

Figure 1: Vermont Energy Consumption by Selected Categories, 2006



Source: Energy Information Administration

In 2000, there were 893 occupied housing units in Vernon, and average energy cost per home in Vermont was \$861. Since that time, fuel prices have shown sporadic dramatic increases, giving way to record growth in prices beginning in late 2007 continuing into 2008 where gasoline reached its highest national average retail price.<sup>2</sup> As of April 2011, prices were again approaching record high levels.

## **Electricity**

### **Conservation and Energy Efficiency**

Energy savings can be realized by retrofitting existing buildings with insulation, installing high-performance windows and doors to reduce heat loss, weather-stripping, replacing incandescent lights with fluorescent, and using energy efficient appliances. Programs available to the residents of Vernon are listed in Addendum Section 7.

Initiatives to reduce transportation costs are also viewed as energy conservation measures, especially within a State where the transportation sector is a major consumer of energy. Changes such as ride-sharing, combining trips and using alternative transportation will conserve fuel and reduce wear and tear and maintenance costs on individual vehicles. Fuel efficient cars will use less gasoline and emit less pollution.

### **Potential for Local Energy Production**

**Energy Goal:** Vernon will reduce total per-capita non-renewable energy consumption 40% by 2030 from a 2009 baseline.

### **Energy Policies and Recommendations**

**Policy 1:** Recognizing that there is relatively little new construction in Vernon, focus on energy-saving opportunities for existing homes.

#### **Recommendations**

Create a town position of Energy Coordinator who will:

- a. Develop financial incentives, revolving loan funds, and other measures to facilitate energy conservation retrofits.
- b. Increase public awareness of weatherization programs, and c. Promote the sale of energy efficient light bulbs.

**Policy 2:** Support renewable energy technologies for heating and cooling purposes.

#### **Recommendations**

- a. Promote high levels of energy conservation and solar design features in new construction projects.
- b. Encourage the use of facilities that employ renewable energy sources, such as solar water heaters (as defined in 32 VSA § 3845), such as exempting such facilities from real and personal property tax.

**Policy 3:** Encourage the use of site planning, landscaping, and structure design to maximize the potential for energy conservation by reducing the demand for artificial heating, cooling, ventilation, and lighting, and facilitating the use of solar and other energy resources.

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<sup>2</sup> *Utility Facts 2008*, Vermont Department of Public Service

- Policy 4:** Encourage the use of forest resources for heating and energy generation in a manner that sustains the resource base, maintains proper safety standards, and has minimum impact on the environment.
- Policy 5:** Require the location of energy generation facilities and transmission corridors to minimize impacts on the environment and on historic, recreational, and scenic facilities and sites.
- Policy 6:** Encourage the reduction of outdoor lighting costs by the use of energy efficient lighting and fixtures and the use of timing devices.
- Policy 7:** Reduce transportation energy use.

**Recommendations**

- a. Identify and implement strategies for reducing commuting energy use through such measures as additional park-and-ride facilities, ridesharing programs, and bicycle lanes and pathways. (Planning Commission, Energy Coordinator)

**Policy 8:** Keep up-to-date on regional energy planning issues and activities.

[*See Addendum Section for additional information.*]

## **8 - NATURAL RESOURCES**

**General natural resources policies**

1. It is the policy of the Town to encourage, in every possible way, the careful use of such lands so that the resource or condition is not significantly altered or threatened and the public good is upheld.
2. The Town shall be encouraged to purchase or accept rights to property that has specific resources value as identified in the plan.

**Agricultural Resources**

Agricultural soils: The United States Department of Agriculture Natural Resources Conservation Service (NRCS) has worked with State officials to categorize soils found in Vermont according to their potential for agricultural use. This land use capability system is based upon the physical and chemical characteristics of soils, as well as climatic conditions. All soils have been labeled as having high, good, low, or limited potential for agriculture. For state land use planning purposes, specifically for the Act 250 review process, high and good potential soils are considered "primary agricultural soils."

At the local level, the Vernon Farmland Protection Advisory Committee undertook an extensive soils mapping project in 1982 with assistance from the NRCS for the purpose of developing and implementing the Vernon Land Evaluation Site Assessment Program (LESA), a system designed specifically to help the Town identify farmland in need of protection under the community's Farmland Protection Program.

Soils were evaluated based upon their relative productivity in Vernon and were subsequently classified into seven different Agricultural Value Groups. A copy of the full soil potential study is on file in the Vernon Town Offices. Groups 1 through 3 represent the three best soils groups in the Town. Together with three additional soil types, which

were placed in Agricultural Value Group 4, these soils represent the "primary agricultural soils" as defined by the State soils classification system.

Agricultural Land: Agricultural land used for farming purposes in Vernon includes both lands whose soils are considered primary agricultural soils, as well as those whose soils have been identified as non-primary. This suggests that any future efforts to identify and protect locally important farmland in Vernon need to consider more than just the soil characteristics of land.

Farmland Protection Fund: At Town Meeting on March 2, 1982, on the recommendation of the Vernon Planning Commission, the Town of Vernon voted to establish a farmland protection program that included a Farmland Protection Fund to assist in the acquisition of conservation restrictions on agricultural land.

Following a special Town Meeting on May 3, at which the March action was reaffirmed, the Selectmen appointed a special study committee that drafted operational policies and procedures. The committee received technical assistance from the Windham Regional Commission, the USDA Soil Conservation Service (now the Natural Resources Conservation Service), the UVM Extension Service, the USDA Resource Conservation and Development District, and the Ottauquechee Regional Land Trust. Approved by the Selectmen in September, the policies and procedures called for mapping all farmer-owned and rented land and the identification of the soils and acreage of all parcels. An agriculturally focused Land Evaluation and Site Assessment (LESA) program was used to determine criteria to assist in prioritizing lands in need of protection.

The implementation of the farmland protection program rests with the Selectmen, assisted by the Farmland Protection Advisory Committee. The Farmland Protection Fund is to be used primarily to acquire interests in threatened agricultural land in Vernon and acquire development rights on those lands. The Fund and Advisory Committee were developed to achieve the desire expressed in the Town Plan that the Town shall encourage the use of primary agricultural soil for farming and related pursuits that will maintain the potential of such soils for productive agriculture. The Farmland Protection Fund, authorized and funded by appropriations by Town Meeting, contained as of January 2014, approximately \$ \$384,399 to be used expressly for conservation of agricultural lands

Farmland Protection Projects: Vernon Farmland conserved with an appropriation from the Vernon Farmland Protection Fund as approved by the voters of Vernon.

#### **Farmland Protection Fund and Program Recommendations**

1. The Town should support the continuation of the Farmland Protection Committee.
2. The Committee should review potential projects.
3. The Committee should approach and work with landowners about potential projects.

GIS evaluation of farmland in Vernon indicates that in 2011 approximately 1,780 acres are associated with farms in Vernon, including both pastures and land under cultivation. This land is either owned by local farmers or is leased or rented by them from non-farmer landowners; and is identified on the Existing Land Use map. In 1994, the agricultural land acreage was approximately 1,870 acres. Comparing the figures and maps indicates that between 1994 and 2011 approximately 10 acres of agricultural land were abandoned, 105 acres were converted to development, and 25 acres became new agricultural land.

All of the farmland leased by Vernon's farmers is being actively farmed for either crop production or pasture purposes, while a sizeable portion of the land owned by farmers is in forest use. For the most part, this forest land is unsuitable for direct crop production or pasture land. These forest lands may contribute to the general economic viability of local farms by providing opportunities for maple sugaring, firewood and lumber harvesting, and Christmas tree production.

Vernon farmers clearly rely heavily on the availability of leased land to support their farm operations. Studies in 1992 showed that farmers leased approximately 547 acres of land in Vernon, as well as land in adjacent towns in MA. This represented approximately 35% of the total number of acres used by farms in operation at the time. This suggests that Vernon farmers, like their counterparts in neighboring communities, are vulnerable to sudden changes in the availability of a sizeable portion of the land which they depend upon to keep their agricultural enterprise economically viable, since they do not own, and therefore, do not control the lands they lease. It is recognized that the economics of farming are changing and will continue to change in the future. In light of this reality and in fairness to the landowners, reasonable multiple uses and alternative use of the important agricultural lands must be provided for. Preservation of farmlands which cannot yield a reasonable, competitive living to a working farmer has to be regarded as a public expense, not a private owner's burden.

The Town of Vernon recognizes the considerable importance of farming to the Town's social, economic and natural environment, as well as the importance of protecting existing farms and agricultural land for expanded or new agricultural uses. For these reasons, when agricultural land is proposed for change of use, the Town adopts the following policies to guide future public and private development activity.

**Agricultural Resources Policies:**

1. The Town will encourage the use of primary agricultural soils for farming and related pursuits that will maintain the potential of such soils for productive agriculture.
2. Agricultural land that is important to the Town is identified on the Existing Land Use Map. Important agricultural land includes, but is not restricted to, primary agricultural soils as defined by the state and NRCS.
5. Construction or extension of public services and utilities by the Town (i.e., roads, sewer, recreational areas), State (highways), or private companies (energy generation or transmission facilities), should not change the Grand List Category of any abutting farm land. However, if these improvements will change the

Grand List Category, then the Town shall encourage the utilization of the authority granted its Selectboard and Town School District Directors by vote at the 1974 Annual Town Meeting to contract with farmers for Tax Stabilization purposes as provided for under 24 V.S.A. § 2741. In the alternative, the farmer could consider the sale of development rights to the Town Farmland Protection Program and/or the Vermont Land Trust.

6. The Town will inventory its forest soils and secondary agricultural soils for such lands. It is the policy of Vernon to plan where possible for development that will not materially reduce the productivity of these soils.

#### **Agricultural Resources Recommendations:**

1. The Town Farmland Protection Advisory Committee shall continue to advise the Vernon Selectboard, School Board, Planning Commission and other public and private bodies and individuals in the implementation of the above policies. The committee should employ land evaluation and site assessment (LESA) guidelines to determine which agricultural and forestry land is in the Town's interest to protect. Appropriate land protection measures and techniques should be employed.
2. The Town shall continue to encourage the efforts of non-profit land trusts within the Town.

#### **Forest Land**

The majority of Vernon's land base is forested. Much of the forestland is impractical for development due to limited accessibility, steepness and poor soils. This is particularly true in the western portions of town. Several large forested areas are owned by the Vermont Fish and Wildlife Department and are also unavailable for development.

The demands of the Town's forestland are likely to increase. Where conditions are favorable, future residential development will be encouraged on wooded land, as opposed to highly visible open areas.

#### **Forest Land Policy:**

1. The value of forestland for lumber, recreation, wildlife habitat, scenic resources and as a vital component in the hydrologic cycle shall be recognized and protected to the fullest extent possible; and proper management of forest resources shall be encouraged to increase the quality of existing forest resources.

#### **Water Resources**

The residents of Vernon rely entirely on groundwater for their drinking water supplies since no municipal water supply system exists within the community to date. Much of the future development in Vernon will continue to depend on groundwater resources. Thus, protecting this resource is of paramount importance.



The largest surface water body in the Town is Lily Pond, at approximately 40 acres, with a watershed area of about 400 acres. There is also Hatchery Pond, a former trout hatchery. Both Lily Pond and Hatchery Pond have public access for boating and fishing.

Although the Connecticut River defines the eastern boundary of Vernon with Hinsdale, NH, much of the Connecticut River is not within the Town of Vernon since New Hampshire owns to the high water mark of the River. It is a significant water resource that is used by residents of Vernon for boating, fishing, and birding. The public access area at the base of Vernon dam provides sandy areas for swimming, fishing, and a boat launch. Frequent releases of water from the dam to generate electricity have to be closely monitored by river users since water levels can rise rapidly.

#### **Water Resources Policies:**

1. To ensure maximum water yield and quality for the health and welfare of the public, areas which have been identified or will be identified as having high groundwater potential or which permit the collection or recharge of groundwater supplies shall be protected from any potential adverse impacts of land use activities and development.
2. It is a policy of the Town to protect its water resources by restricting development to areas other than headwaters of watersheds characterized by steep slopes and shallow soils or watersheds of public water supplies, when and if land is developed.

#### **Wetlands**

Wetlands include swamps and marshes with open water or with a vegetative mat over a high water table. In addition to their value as wildlife habitat, wetlands may contribute recharge waters to aquifers and serve as regulators or surface water flow. They hold great amounts of water during times of flood, and often provide a much more efficient and less expensive control measure than man-made dams and levees.

#### **Wetlands Policy:**

The limited number of wetlands in Vernon should be protected from development and should not be drained for development purposes unless the long-term public benefit of so doing heavily outweighs the loss of resource value.

#### **Wildlife and Habitat**

Vernon has a very mild climate for Vermont; in addition it lies along the flood plain corridor of the Connecticut River and in some areas contains substantial sandy soils. These characteristics allows species that are at the northern extreme of their range to be found in Vernon and often in no other town in the Connecticut River drainage of Vermont or in some cases, nowhere else in Vermont at all. Using the many unusual plants and natural community types found in Vernon are quite a few rare reptiles and amphibians. See addendum for details on Wildlife and Habitat.

#### **Habitat Goal:**

Ensure that animals and plants are able to move freely between conserved lands and lands under long-term stewardship, contiguous forest habitat, and other important habitats, land

features and natural communities to meet all their requirements for survival by increasing the acreage of connecting lands.

**Habitat policy:**

Important wildlife corridors will be protected or conserved from encroaching development and incompatible activities, such as road expansion or development of new roads, by restricting development in and around corridors. These resources will be given high priority in considering lands for acquisition or other long-term conservation efforts.

**Wildlife and Habitat Policies:**

1. Critical wildlife habitats (including but not limited to wetlands, deeryards, surface waters, etc.) shall be protected from uses and development which reduce their vital biological function.
2. Sites or areas of endangered or rare species of wildlife shall not be used or developed in a manner that will destroy, diminish or imperil those species.

The Town of Vernon is rich in areas of high ecological value. The Vermont Nongame and Natural Heritage Program track native rare plants and animals and plant communities that are threatened or endangered. These species and communities are considered rare because they have particular habitat requirements, are at the edge of their ranges, or are vulnerable to disturbance or collection. The general locations of these species and habitats are mapped using GIS and species descriptions are available through the state program. These species and their habitats deserve an extra level of protection.

Roaring Brook Wildlife Management Area (RBWMA) consists of a number of parcels totaling 1,428 acres located in the towns of Vernon (1,289.52 acres) and Guilford (138.55 acres), Vermont. The parcel abuts the northbound lane of I-91 from the Massachusetts state line northward for 2.4 miles. The entire property is on steep to gently rolling terrain. Public access to the parcel is generally poor. The parcel is composed of 1,002 acres where the State holds all rights (fee simple), 386 acres where the timber rights are privately owned, and 38 acres where the State owns only hunting rights. The Vermont Department of Forests, Parks & Recreation is drafting a long term management plan as this Plan is written in 2011.

The combination of the RBWMA, Vernon Town Forest, several undeveloped inholdings, large private parcels to the north and east devoted to forest management, and conserved lands to the south in Massachusetts, the 5,000 acre Satan's Kingdom Wildlife Management Area, results in a large area of forested habitat that can fulfill all the needs of a number of wildlife species. White-tailed deer and turkey are common and abundant game species. The Eastern Racer, an endangered species of snake, is found on the property along with vernal pools and wetlands that support a wide variety of amphibian and bird species. Bat surveys indicate an atypical abundance of bat species including little brown, northern long-eared and big brown bat.

Important habitat features include large areas of deer wintering habitat, stands of oak and hickory that provide wildlife food, numerous wetlands, and Eastern Racer habitat along the Interstate and power corridor. The RBWMA is adjacent to several large conserved

parcels in Massachusetts (conserved lands map on page 14) creating an approximately 5,000-acre area of conserved habitat in the region.

Roaring Brook is used primarily for hunting and, to a lesser extent, snowmobiling. There is evidence of considerable and destructive off-roading activity. Currently there is limited legal access to the parcel. The Vernon Town Forest, which abuts this parcel on the east, has good access and a trail system linking the parking area to the more prominent black gum swamp on the town forest.

### **Fragile Areas**

Fragile areas are irreplaceable components of Vernon's natural heritage. They are valuable for maintaining a diversity of natural communities, providing refuges for rare and endangered plants and animals, and for providing standards by which to judge the health of the environment. They have great biological, educational and social value.

The community of plants in the Vernon Black Gum Swamps is fragile. Although the old gums still appear to be healthy and younger gums are growing nearby, many factors could destroy the swamps as we know them. Black gums prefer warmer climates; several unusually cold winters could kill them. A strong windstorm could uproot their shallow root system. Careless logging, off-road vehicles, or heavy hiker visitation could cause soil and organic matter to wash down into the swamp basins and suffocate the roots. Well meaning visitors could kill the trees and other rare plants simply by trampling and compacting the soil.

### **Fragile Areas Policies:**

1. The Town will protect and maintain Vernon's black gum swamps by preventing sudden environmental changes around the swamps and by limiting vehicle access to these natural areas.
2. The Town will encourage sound forest management practices on the J. Maynard Miller Town forestland which surrounds the Black Gum Swamp and shall prohibit any tree cutting within a 300-foot radius of the swamps.

### **Fragile Areas Recommendations:**

1. The Vernon Municipal Forest Committee should coordinate with the Vermont Department of Forests, Parks and Recreation to develop a master plan for the protection of the Black Gum Swamp in conjunction with the forestry and recreational use of the J. Maynard Miller Town Forest.
2. Roads usable by four wheel drive vehicles or dirt bikes should be closed at all forest entrances during both wet and dry seasons to help prevent soil erosion and possible fires.

### **Inundation Hazard Areas**

Within the special flood hazard areas as defined by the Federal Emergency Management Agency Flood Insurance Rate Map and the Town's Inundation Hazard Area Bylaw adopted in October of 2010, as it may be amended, and such other flood hazard areas as may be defined by the Town, the following policies are recommended.

**Flood Hazard Areas Policies:**

1. The Town shall strictly apply and enforce the Vernon Inundation Hazard Area Bylaw and should periodically review and update those Bylaws in full compliance with the National Flood Insurance Program.
2. Flood hazard areas shall be reserved for agriculture, open recreation or other low impact purposes, which do not significantly impair the lands natural ability to handle floodwaters.
3. All construction within flood hazard areas as defined by the Town and Federal Maps shall be carried out in a manner, which is consistent with prevailing local, state and federal regulations and shall adequately ensure the health, safety and welfare of the public during flooding.
4. Any construction within flood hazard areas shall minimize disturbances of the soil, including earth removal, soil compaction or paving.

**Fluvial Erosion Hazard Mitigation**

Areas subject to fluvial erosion hazards, from gradual stream bank erosion to catastrophic channel enlargement, bank failure and change in course, due to naturally-occurring stream channel adjustments, have been identified and mapped in accordance with accepted state fluvial geomorphic assessment and mapping protocols for the following streams: Broad Brook, Town Brook, Newton Brook and Connecticut River.

**Policy:**

1. Avoid development and other encroachments-including fill, dredging, new structures, parking areas, infrastructure and utilities, and unnecessary public investments, within mapped fluvial erosion hazard areas denoted in the Flood Hazard Maps.
2. Allow only forestry, agriculture, passive recreation, functionally dependent facilities, limited improvements to existing structures and facilities and state – recommended channel management activities within these areas, subject to municipal review and approval.

*[See Addendum Section for additional information.]*

**9 - HOUSING**

Table 3 indicates the number and distribution of year-round housing types present in Vernon in 1991, 2000, and 2010. Nearly eighty-five percent of Vernon's year-round housing stock is comprised of single-family dwellings. Mobile homes account for almost twelve percent, while the remaining roughly three percent is accounted for in the structures housing two to ten units.

As shown in Table 4, up until 1989, approximately two percent of Vernon's housing units were seasonal, as compared to approximately thirty percent for Windham County as a whole. Moreover, as of 1990, less than one percent of the housing units in Vernon were seasonal.

The number of sewage permits issued by the Town for the installation of septic systems for newly constructed homes (including mobile homes) in Vernon has fluctuated between three and nine over the past few years as indicated through new sewer permits issued, see Table 2 in Section 3 - Community Profile. The dramatically higher rate of new home construction experienced in Vernon in 1999 and 2000 most likely reflects the economy and active market status in those years.

**Table 3. Characteristics of Year-Round Housing by Number of Units at Address**

	Single Family	2-9 Units	10+ Units	Mobile Homes
1991	550	19	3	76
2000	616	25	3	79
2011	652	57*	5	73

(Note: \* includes mother-in-law apartments and basement apartments for children)  
Source: Vernon Town Clerk, 1991, 2000, and 2011

**Table 4. Vernon Housing**

YEAR ROUND HOUSING UNITS			SEASONAL UNITS		
Year	Estimates	% Change	Year	Estimates	% Change
1988	650	13.8	1988	11	-26.7
1989	623	-4.3	1989	11	0.0
1990	648	4.0	1990	6	-54.5
1998	719	10.9	1998	6	0.0
1999	729	1.3	1999	6	0.0
2000	741	1.6	2000	8	33.3

Source: Vermont Department of Health, Population and Housing Estimates, 1988, 1989, 1990, 1998, 1999, 2000; WRC, Vernon Town Clerk

**Table 5. Windham County**

YEAR ROUND HOUSING UNITS			SEASONAL UNITS		
Year	Estimates	% Change	Year	Estimates	% Change
1988	17,341	3.2	1988	7,379	8.0
1989	17,278	-0.4	1989	7,748	5.0
1990	23,702	37.2	1990	6,387	-17.5
1998	25,184	6.2	1998	6,768	5.9
1999	25,563	1.5	1999	6,739	-0.4

Source: Vermont Department of Health, Population and Housing Estimates,

Single-family units have accounted for the majority of all new housing in Vernon throughout the past years. Given the lack of a centralized sewage treatment system, this form of development will most likely continue to dominate. Therefore, it is important that future development occurs on sites capable of maintaining permanently functioning on-site sewage and water facilities.

It is in the Town of Vernon's interest that new or rehabilitated housing should be safe and sanitary, available in adequate supply to meet the requirements of all the Town's residents and be coordinated with the provision of necessary public facilities and utilities.

**Policies:**

1. Wherever appropriate to the Town's rural character and the capability of the land, and to the efficient provision of services, developments in areas designated to accommodate residential growth shall be encouraged to employ the cluster planning concept so as to avoid negative aspects of development sprawl.
2. The development of housing shall be coordinated with the adequate provision of public utilities, facilities and services. As seasonal homes are convertible to permanent homes and are often so converted, the Town shall consider permanent and seasonal homes by the same standards.
3. The Town shall continue to support the state sewage disposal regulations and permit issuance process and shall develop an oversight and enforcement ordinance to ensure that the Town Health Officer is required to actively evaluate compliance. This will help to minimize pollution of Vernon's soils and water resources and public health problems resulting from increased residential development.

**Recommendations:**

1. The Town should allow for a range of residential development that meets the diverse housing requirements of a variety of household types and income groups.

**Elderly and Handicapped Housing**

According to census figures, in 1980 Vernon's population of citizens aged 65 years and older numbered 232; in 1990 there were 268; in 2000 there were 288; and in 2010 there were 393. While Vernon's senior population is not unusually high, special considerations may be needed to meet this group's housing needs.

## **10-TRANSPORTATION**

**Highways**

Vernon has a total of approximately 36.79 miles of highway; of these, Town Roads comprise 24.83 miles, State Highways, 8.90 miles, and I-91 accounts for 2.74 miles.

Class 1 roads are those highways that are the responsibility of the town, but are also extensions of the state highway system. Class 2 roads serve as main corridors between Vernon and other towns. Most Class 2 roads are paved. Class 3 roads are comprised of secondary town highways that are passable year round by standard vehicles. Class 4 roads are all other town highways. Typically Class 4 roads are seasonally functional for normal vehicular traffic and have a dirt surface.

State Highway Route 142 (Fort Bridgman Road) provides access between the Connecticut River Valley villages in northern Massachusetts and Brattleboro. Traffic

along Route #142/Fort Bridgman Road has remained relatively stable over the past 30 years. There was one notable increase in traffic counts, common to both Rte. 142 in the vicinity of Governor Hunt Road and Pond Road; this occurred in the mid-1980s and is presumably related to the Recreation Center on Pond Road. Average daily traffic on Rte. 142 at Governor Hunt Road increased from 1,900 in 1982 to 2,600 in 1994 (closest years of data availability). On Pond Road the traffic count increased from 970 in 1983 to 1,100 in 1987 and to 1,400 in 1995. It peaked at 1,700 in 2007 and declined to 1,600 in 2009.

Other than that spike, traffic counts have been largely stable over time. There is a notable increase in traffic along Rte. 142, going from south to north. Near the MA state line counts have averaged roughly 1,200 over the past 30 years; just south of Governor Hunt Road they have averaged roughly 2,900 since the mid-1980s; and near the Brattleboro town line they have been in the vicinity of 3,600.

### **Maintenance**

Vernon should consider implementing a Road Surface Management System and incorporating it in the town's Capital Plan. Similarly, the town should consider conducting or updating a bridge and culvert inventory and using it in capital planning.

### **Bicycle and pedestrian use**

Bicycle use on some of Vernon's roads is at times significant. Cycling and walking are healthy activities; the US Centers for Disease Control and Prevention has conducted studies showing there is a link between public health and access to or easy availability of places to bike and walk, especially as an occasional form of transport, as well as recreation. Vernon would like to encourage these activities through its transportation and land use planning. Where feasible, roads, especially new ones or those being renovated (resurfaced or reconstructed), should provide reasonable space to accommodate these activities.

Vernon should consider designating preferred routes for cyclists, such as using Pond Road rather than Route 142, with approved road signs to encourage bicycle traffic on roads with less traffic volume, slower speeds, and fewer large trucks. Such routes could link to other bicycle facilities, such as the Franklin County (MA) bike path and the proposed bike path over the closed Schell Bridge in Northfield, MA.

Reasonable improvements to accommodate bicycles would allow the Town to expand its recreational offerings while encouraging at least a few to take up biking as a transportation alternative to the automobile. Providing adequate facilities for bicycles can involve the development of bike lanes or paths, the provision of bike racks, the provision of more elaborate facilities such as "bicycle lockers" so that commuters can switch between transportation modes, or simply ensuring that road improvements provide for sufficiently wide paved shoulder to accommodate bicycles.

### **Rail**

A number of parcels in Vernon have access to the New England Central Railroad tracks. Potential access of new industries, if appropriate to those parcels, would most likely be

by means of private sidings. For example, Cersosimo Industries has an extensive siding at the location of its quarry and chip plant. With the many at-grade crossings, there is a need to consider installing or improving existing railroad crossing signage, particularly on the numerous private road crossings. The limited supply of developed rail siding facilities suggests a continued great dependence upon the highway network for freight transport.

### **Transit**

Vernon contemplates the future possibility of public transportation and encourages the extension of such service(s) to serve the town. Connecticut River Transit (CRT) operates a transit fixed route between Bellows Falls and Brattleboro during the weekdays. There are no stops in Vernon, but the possibility should be explored. The Town provides elderly and disabled transit service by the daily Town Bus. This service can be used for a variety of purposes including shopping trips, meal service, and medical service.

### **Recommendation:**

No development should be permitted within existing or planned highways or rights-of-way.

### **Planning for Growth Policy**

In planning for growth, it is the policy of the Town of Vernon to prevent commercial strip development and dense residential development that does not utilize a single access to the Town or State Highway to avoid proliferation of multiple access points (curb cuts). Such development adds unreasonably to traffic congestion and over-taxing of town roads and services.

### **Class 4 Road policy:**

Any development that is proposed on a Class 4 road requires Selectboard approval. It has been the practice of the Town of Vernon to not maintain Class 4 roads. State statute allows the Town to regulate the usage of a Class 4 town highway (19 V.S.A. Section 304(a) (2)). This means that the Selectboard can limit the types of use such as snowmobiles, ATVs and 4x4s; limit the season of use such as restricting motorized vehicles during muddy periods; and set conditions with regards to speed and weight. Vernon currently has no use restrictions on Class 4 roads. The uses on as well as the maintenance of these roads should be evaluated so as to prevent negative environmental impacts.

### **Transportation Policies**

1. Encourage pedestrian and bike paths for both recreational use and as alternative modes of travel, and, where feasible, require the addition of pedestrian and bike paths whenever any reconstruction and repair of roadways is undertaken.
2. Maintain the Town Bus service.
3. Support organizations that are actively involved with regional transportation issues.
4. Require that the Town of Vernon follow the State of Vermont's regulations regarding salt/sand storage sheds.



### **Transportation Recommendations**

1. Research Class 4 roads, determine their public benefit, and implement use restrictions and maintenance programs, as deemed necessary, to protect the environment and the infrastructure of the road.
2. In determining uses for Class 4 roads, a review process that considers citizen input as well as impacts to the environment and the neighboring properties should be employed.
3. Continue to require that the Selectboard authorize any development on Class 4 roads.
4. Review, select and implement traffic calming techniques, such as narrowing travel lanes and installing speed tables, to reduce traffic speed and improve bicycle and pedestrian safety in the Villages.
5. Make older sidewalks accessible to persons with disabilities.
6. Entrance features which inform travelers that they are entering or leaving the Villages should be designed and installed.
7. Periodically update the culvert and road inventory data.

## **11 - COMMUNITY FACILITIES (Government Facilities and Public Utilities)**

### **Planning for Growth**

A new Town Office and Library complex was constructed in 1970. This structure also provides meeting rooms and an area for a Recreation Department-sponsored pre-school. The Town Highway Garage was originally constructed in the early 1970's and a large wing for additional equipment storage was added in the early 1980's. Recently, a picturesque gazebo was constructed in the Town Park, adjacent to the Town Offices and near the Vernon Elementary School. A Recreation Center with an Olympic-size swimming pool, tennis courts, group picnic shelter, playground, and a basketball court was constructed in the 1970s for town residents. An expansive addition to the school was completed in the early 1980s. This addition increased instructional and recreational space from 14,000 square feet to a total of 57,000 square feet.

### **Policy:**

The Town has developed a capital plan, program and finance guidelines. Anticipated expenses in excess of \$10,000 within the ensuing 15-year period are identified, proposed, and approved at Town Meeting. Items included are fire and police equipment, necessary municipal equipment, buildings and additions, and recreational facilities.

### **Public Facilities or Services Adjoining Agricultural or Forestry Lands**

#### **Policy:**

The construction, expansion or provision of public facilities and services should not significantly reduce the resource value of adjoining agricultural or forestry

lands unless there is no reasonable alternative and the facility or service has been planned to minimize its effect on adjoining lands.

### **Transportation and Utility Corridors**

#### **Policies:**

1. The development and expansion of governmental and public utility facilities and services should occur within highway or existing public utility right-of-ways corridors in order to reduce adverse physical and visual impact on the landscape and achieve greater efficiency in the expenditure of public funds.
2. Efforts will be made to influence public utility companies and developers to bury utility lines in areas of great scenic or historic value, in town centers and residential subdivisions.

### **Solid Waste Disposal**

At present time the Town has a contractual arrangement for curbside residential solid waste collection with a local waste hauler. Weekly collection of trash is a service provided by the Town, and the waste is hauled to a transfer station, and then to distant landfills.

The Town is an active participant in the Windham Solid Waste Management District (WSWMD). Through the WSWMD, the Town provides residents the opportunity to recycle plastic, glass, and metal containers, paper, cardboard, clothing/shoes, and books at the Town garage. The WSWMD also conducts Household Hazardous Waste collection programs in the Town. In addition, starting in October 2009, the Town has been providing a container that is open on weekends for recycling organic materials, particularly food waste and non-recyclable paper and cardboard, which is collected by the town's trash hauler and taken to a farm in Massachusetts for composting. The Vernon Elementary School also has a food waste collection program, as well as conventional recycling. Every ton of material recycled saves the Town money compared to paying landfill disposal rates.

#### **Solid Waste Disposal Policies:**

1. Development, which is responsible for unique or large amounts of solid waste, will be permitted only if it can be demonstrated that the method of disposal will not adversely affect the environment and that the Town can finance the disposal of additional solid waste without incurring an economic hardship.
2. The Town shall comply with the requirements of all State solid waste laws and regulations. A new Universal Recycling law was passed by the Vermont legislature and signed into law by the Governor in 2012.

A copy of Act 148 and the systems analysis report on implementation of the law is available at the following ANR web site:

<http://www.anr.state.vt.us/dec/wastediv/solid/Act148.htm>

#### **Recommendations:**

1. The Town should continue to work in conjunction with the Regional Planning Commission, Windham Solid Waste Management District, and other regional facilities to develop a long-range plan for solid-waste disposal, and resource and energy recovery from solid waste.
2. The Town should work with appropriate agencies to implement methods of reducing the quantity of waste that is disposed of by increasing recycling, particularly, "pay as you throw." (Mandatory in 2015)
3. The Town should continue and expand its recycling program to include curbside collection of recyclables as well as food waste and non-recyclable cardboard. Curbside collection of recyclables and food scraps is also required by Act 148, and will save the Town considerable money if it allowed the Town bi-weekly collection and recyclables on a weekly basis.

**Privately Owned Facilities and Services Policy:**

1. It is the policy of the Town of Vernon that it shall approve of no privately-owned, municipal type facilities or services, such as private water or sewage systems, unless adequate surety is provided by the developer to financially indemnify the Town in the event that the Town is required to assume responsibility for the facility.

**Fire and Police Protection**

Police: Vernon has a full service police department with 4 fulltime and 2 part-time officers with 24 hour/on call response.

Fire: Vernon is well served by a volunteer fire department of approximately 25 active volunteers. All emergency calls are received by Keene Mutual Aide dispatch, which then tone out the fire department via individual "fire pagers" carried by each member.

The Vernon Memorial Fire Station was built with volunteer help on land given for that purpose by J. Wadsworth White of White Partitions. It is centrally located within the Town on Route 142. The building was completed in 1962. In addition to an area for housing equipment, the station contains a chief's office, dispatch center and kitchen. The station is also equipped with hose washer and dryer. An emergency power generator was obtained with assistance from Emergency Management. Fire apparatus is maintained in accordance with the Town of Vernon Capital Plan.

**Public Recreational Resources**

Vernon has an expansive recreation park, which opened in 1971 with a swimming pool and facilities. Since that time two lighted tennis courts, a basketball court, two shuffleboard courts, a group picnic shelter and picnic sites with tables and grills in the wooded area, and children's playground have been added. The Town installed equipment in the pool in 1985, providing access for the physically-challenged. Other facilities available at the park include horseshoe pits. An arts and crafts program has been developed, along with an extensive summer program that includes swimming lessons, tennis lessons, special events, baseball, softball, outdoor educational programs, field trips, and an arts-in-the-park program.

Trails are available for walking, biking, as well as cross-country skiing. There is also a system of VAST and local snowmobile trails maintained by the Vernon Snow Busters. A multipurpose sports field on other town property close to the park is also available for public use. A year-round activities program is conducted at the elementary school that consists of youth and adult sports.

A volunteer Recreation Board appointed by the Vernon Selectboard conducts the operation of the total recreation program. The Recreation Board employs a fulltime Director and support staff to supervise the leisure activities of all age groups. More than fifty volunteers also support the programs throughout the year.

The Town has acquired a tract of land called the J. Maynard Miller Town Forest, which abuts the Roaring Brook Wildlife Management Area and encompasses the Black Gum Swamps and other beautiful and interesting natural areas. The Recreation Department has been involved in cutting and marking trails, drawing a map and working with the Miller family to accomplish installation of a permanent kiosk at the entrance to the Town Forest. Trails are used for hiking, biking, cross-country skiing, and horseback riding. The Town has also, purchased a fifty-foot-wide access road and approximately one acre of land bordering Lily Pond so that access will always be available to the public for canoeing, kayaking, ice skating, and bird watching.

The Town also owns a small roadside area, Indian Point Picnic Area, which was developed in memory of Mrs. Clara Lou Cooper. It is hoped this can be maintained for public picnicking.

Large tracts of Vermont Fish and Wildlife land, the Roaring Brook Wildlife Management Area, exist within the Town and these lands should be utilized to the fullest extent for the enjoyment of Vernon's residents. Some of these lands are not accessible except through private property.

**Policies:**

1. The use and development of land and waters should occur in such a way as not to significantly diminish the value and availability of outdoor recreational activities.
2. Existing access to land and water areas of high outdoor recreational potential shall be protected and desirable rights of way to these areas should be pursued by the Town.
3. All town parks will be well maintained and be accessible to the physically-challenged.

**Health**

Hospital based comprehensive home care is provided by the Southern Vermont Home Health Agency. The Vermont Department of Health continues to work with communities to provide health care in other areas including maternal and child health programs, communicable disease prevention programs, and health promotion programs for all ages. The Vernon pre-school/well child clinics, which are conducted on a regular basis by the

Vermont Department of Health, provide well child care according to the guidelines set forth by the American Academy of Pediatrics.

Special services available to residents of Vernon are provided through the Austine School for the Deaf, the Winston Prouty Center for Child Development, and the Speech Therapy Services through the Supervisory Union. The Women's Crisis Center, located in Brattleboro, operates a shelter which provides safety and counseling for victims of sexual assault and battering.

Community Mental Health Services are provided through Health Care and Rehabilitation Services, which sponsor Mental Health Services of Southeastern Vermont. These services include counseling (in office and schools), partial hospitalization, aftercare and many other special services.

**Health Care Facilities**

Vernon has most health resources desired by a rural community within reasonable distance. Emergency medical support and ambulance service are provided for by Rescue Inc. based in Brattleboro.

**Table 7. Health Care Facilities within 25 miles of Vernon**

<b>Name of Facility</b>	<b>Location</b>
Brattleboro Memorial Hospital	Brattleboro
Brattleboro Retreat	Brattleboro
Grace Cottage Hospital	Townsend, VT
Baystate/Franklin Medical Center	Greenfield, MA
Farren Care Center	Montague, MA
Dartmouth Hitchcock-Keene Clinic	Keene, NH
Dartmouth Hitchcock-Cheshire Medical Cen.	Keene, NH

**Table 8. Health Care Facilities Farther to the North/South**

<b>Name of Facility</b>	<b>Location</b>
Dartmouth Hitchcock Medical Center	Lebanon, H
Hitchcock Clinic	Hanover, NH
Bay State Medical Center	Springfield, MA

The Council on Aging provides resource information and health services for senior citizens, such as monthly health clinics at the Brattleboro Memorial Hospital, a Meals Program in Brattleboro, and local transportation services.

**Emergency Management**

Vernon has an Emergency Management Director and staff appointed by the Vernon Selectboard. The staff typically consists of town officials and volunteer citizens, as well as, the Fire Department. The Police Department, Recreation Department and Highway Department complement the Emergency Operations Center staff.

The Vernon Selectboard has developed an emergency plan to provide advice and assistance in the event of an incident at the Vermont Yankee Nuclear Power Station. Although the plan has been written to be used for an incident at Vermont Yankee, some of the plan information would also be useful in other emergencies requiring public notification and possible public response. Such emergencies may include train derailments, chemical spills, floods, hurricanes, and tornadoes.

The plan is practiced by frequent drills and full participation by the Town in an exercise evaluated by the Federal Emergency Management Agency (FEMA) once every two years. Vernon has a well written and exercised emergency plan. The Town Emergency Operations Center is located in a specially-equipped building on Governor Hunt Road. The facility is equipped with radios, telephones, and radiation monitoring equipment. It can be operated as a round-the-clock staffed facility in the event of an emergency.

The Town of Vernon Emergency Management organization was recently provided an upgraded facility on Governor Hunt road just south of the Vernon School. This facility is designed to provide continuous occupancy capability, state-of-the-art communications equipment, and other emergency response capabilities for town emergency response personnel in the event of an emergency condition requiring Town of Vernon intervention. Events at Vermont Yankee Nuclear Power Station, as well as other types of events, such as hazardous materials train derailments, severe weather conditions, or other catastrophes, are dealt with by volunteers responding to this facility.

#### **Town Government Administration**

The official business of the Town is conducted at the annual March meeting. The Vernon Selectboard (5 members) conducts most of the business of the Town between Town meetings. Other elected or appointed officers are: Town Clerk, Town Treasurer, Town School Directors (5 members), Union School Directors (1 member), Library Trustee (5 members), Road Commissioner (1 member), Planning Commission (5 members), Recreation and Park Board (5 members), the Board of Civil Authority, comprised of the Vernon Selectboard, Town Clerk and Justices of the Peace who have duties of overseeing elections and carrying out the Election Laws, and Board of Health: Town Health Offices and Selectboard. A management audit was conducted in 1991 in order to improve the efficiency of all departments.

## **12 - LAND USE**

This Land Use section presents the Town's desired vision of its future. It considers the data, objectives, policies, and recommendations contained in the previous sections in conjunction with the existing uses of land to arrive at desired future land use. It addresses several categories of broad issues contemplated in and brought forward from prior Town Plans. These topics include the capability of the land, the protection of natural resources, guidance of public and private capital investment, and planning for growth. Significant future input that should be incorporated when available will be the results of ongoing local and regional efforts to plan for the eventual closure of Vermont Yankee.

Capability of the land refers to the ability of the environment, primarily soil and water resources, to accommodate and support various land uses. Protection of natural resources refers to ensuring the future preservation of Vernon's natural assets, including valuable agricultural soils, clean water, and plant and animal communities. Guiding the direction and location of capital investments will help shape the future of the town and should go hand in hand with planning to accommodate and guide future growth and development.

### **Existing Land Use**

Vernon's existing land uses fall into four general categories: agricultural, residential, commercial/industrial, and undeveloped lands often valuable for various resource attributes. Agricultural lands comprise a significant part of the central and southeastern third of town. Residential use is dispersed throughout town along major thoroughfares, such as Franklin, Tyler Hill, and Fort Bridgman Roads, with some occurring in more intensive concentrations in locations such as along and near Newton, Pond, and Huckle Hill Roads. There are commercial and industrial uses, primarily along Route 142, with significant clusters at the north end of town and near the center. Mixed clusters of residential, commercial, and institutional uses exist on Governor Hunt Road and near the center of town. Undeveloped lands make up the greatest part of the southerly and westerly parts of town. Existing land use is shown on the Existing Land Use map.

- Conservation (CN) - lands already conserved or having high potential and/or desirability for conservation to protect very high resource values. These include lands in and around state owned lands of the Roaring Brook Wildlife Management Area and along or near the shore of the Connecticut River. In many cases there is limited access to improved public roads, utilities, and services and there are substantial limitations for development. These areas can provide linkage to similar, often contiguous lands, in neighboring towns and states.
- Resource (RS) - lands having significant resource values to protect for the future. These lands are largely undeveloped and have high natural, recreational, scenic, or other resource values, such as timber, gravel, and river frontage. They also frequently have significant constraints for development, such as steep slopes, shallow soils, or high potential for flooding.
- Rural (R) - lands with high agricultural use or potential that may accommodate low density residential and other rural uses. These lands comprise a significant part of Vernon's agricultural resource base; it is important that development in these areas not negatively affect agricultural viability.
- Rural Residential (RR) - areas intended to accommodate existing and future residential development. These lands generally have readily available road access and slight or moderate limitations for development.
- Mixed Use (MU) - lands with existing higher density residential, commercial, and institutional uses intended to accommodate continuation and expansion of these uses.

- Commercial (C) – lands that support and can accommodate commercial activities
- Industrial (I) - lands capable of and intended for accommodating existing and expanded industrial uses and development. They generally have few development constraints and most have ready access to transportation by truck or rail.

**General Land Use Policies**

1. The Town of Vernon and its required public services need an adequate tax base to support these services. Neither public nor private investment can grow or decline out of reasonable proportion to the other without undue stress on the community.
2. An assessment of public investment in municipal services and facilities is requisite to gauging the effects of proposals for private development or subdivision. It is the policy of the Town that increased costs of operation of Town services, which result from development activity shall be weighed in relation to increased tax revenues.
3. It is the policy of the Town that the pace of development is at a rate or in a manner, which will ensure that the cash flow to the Town can be balanced against necessary or reasonably anticipated increases in public services.
4. The Town has a capital plan which includes those capital expenditures anticipated within a fifteen (15) year period, including but not limited to: fire and police protection and a municipal building program. Separate funds are established for solid waste disposal, town roads program, and, when appropriate, town wastewater treatment and water facilities. Town land acquisition programs are budgeted and allocated as necessary.

**13 - IMPLEMENTATION**

The Town of Vernon will implement this plan through pursuing a continuing planning process, coordinating with neighboring towns and regions, participating in Act 250 and §248 processes, and pursuing recommended actions.

Effective implementation of this Plan requires careful consideration and action by the Townspeople, their Selectboard, Planning Commission, and other local boards, commissions and organizations. As the Town continues to grow and come under additional development pressure, Vernon will need to develop methods to deal with the inevitable problems. Among the many available methods which should be considered are the following:

1. Planning: The existing planning program should be strengthened, with the Planning Commission taking the lead. Discussions of planning issues should become a regular part of their agendas. Effort by all the people of the Town is needed to sustain and enrich such programs.
2. Community Needs/Actions: In many of the issues addressed by the Plan, a set of recommendations is listed indicating items of concern that are offered for consideration and further discussion by the community. Following approval of the Plan, it is suggested that representatives of the community establish a schedule for the discussion and possible implementation of these recommendations.



3. **Public Investment:** Public investment is one of the most direct means to implement the Town Plan. Public investment can include spending for water, transportation, housing, open space, recreation, education, and more. Funds to pay for these public expenditures can come from a variety of sources including grants, state aid, taxes, and user fees.
4. **Land Use Regulations:** Zoning bylaws, including shoreland and wetland regulations, and subdivision regulations, should be considered to promote the public health and safety, environmental quality, and protection of the quality of life.
5. **Land Acquisition:** Acquisition by the Town in fee simple, by lease, by easements of development rights, and by gift are the most certain methods for protecting and assuring access and enjoyment of valuable agricultural, recreational, and scenic lands. Landowners can also negotiate conservation agreements with organizations, such as the Vermont Land Trust and the Nature Conservancy, to protect productive agricultural and forestlands, protect wildlife habitat, natural areas, or public recreation lands.
6. **Taxation:** Vermont's Use Value Appraisal Program encourages long term agriculture and forestry uses of property through tax incentives. The Program encourages the maintenance of undeveloped land for farming, forestry, and public recreation. The Town may also provide property tax relief for qualifying farm, forest, and open space landowners by adopting local tax stabilization programs to reduce local property tax burden. For general purposes, the assessing and taxing of land shall seek to strengthen the policies spelled out in this Town Plan.
7. **Voluntary Action:** Privately-agreed restrictive covenants binding on purchasers of land, special attention and consideration given by private landowners to the objectives of this Plan and its policies when they decide to build or subdivide, formation of non-profit conservation or community land trusts, participation in the Act 250 review process by abutting landowners, and participation in Town planning by citizens concerned about the future of Vernon are all ways to implement this Plan.

#### **14 - STATEMENT INDICATING HOW THIS PLAN RELATES TO DEVELOPMENT TRENDS AND PLANS FOR ADJACENT MUNICIPALITIES, AREAS, AND THE REGION**

The Town of Vernon is fortunate to have the Town of Guilford as one of our neighboring towns. The two towns share common interests, concerns, and goals. Over the years the Vernon Planning Commission has met with Guilford's Planning Commission to discuss common interests. Cooperation has occurred in the development of roads, mapping and finances. Examples of this cooperative effort include the following:

1. **Roads** - Vernon and Guilford have an agreement for exchange of road maintenance.
2. **Finances** - The Vernon Finance Committee has met with Guilford representatives to assist them in the establishment of a Guilford Capital Plan and budget.

Guilford has invited Vernon planners to attend their Planning Commission Meetings. Brattleboro, with its much larger population, is Vernon's town neighbor to the north. As a member of the Windham Southeast Supervisory Union, Vernon sends its students to Brattleboro Area Middle School and Brattleboro Union High School for schooling beyond grade six. Vernon also provides school choice for residents' middle and high school students who can attend other schools of their choice.

Based upon an understanding of the plan documents of Brattleboro, Guilford, and the Windham Regional Commission, no conflicts exist between these documents and the Town Plan of Vernon.

## **15 - TOWN PLAN MAPS**

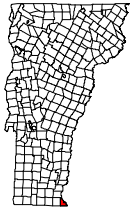
A portfolio of land capability and resource maps is contained herein and available for examination at the Vernon Town Office. It was prepared by the Planning Commission after study and analysis of available information about the Town. The Town Plan maps are:

- Existing Land Use provides information on current use of land such as housing areas, industrial activities, locations of natural resources including agricultural lands
- Natural Resources, including streams, ponds, and wetlands; special flood hazard areas; significant natural communities; deer wintering areas; and natural heritage occurrences
- Transportation, Community Facilities, and Utilities, including cemeteries and churches
- Future Land Use, the vision of what Vernon land use should look like in the future.

# Existing Land Use

## Town of Vernon, Vt.

July 2011



0.5 0 0.5 1 Mile  
 scale 1:36,000 1 inch = 3,000 feet

### Buildings (from E911):

- Commercial
- Industrial
- Public/Institutional
- Single-family
- Multi-family
- Other / Unknown

⊗ Active gravel pits

⋯ Electric Transmission Lines

▬ Roads

▬ Railroad

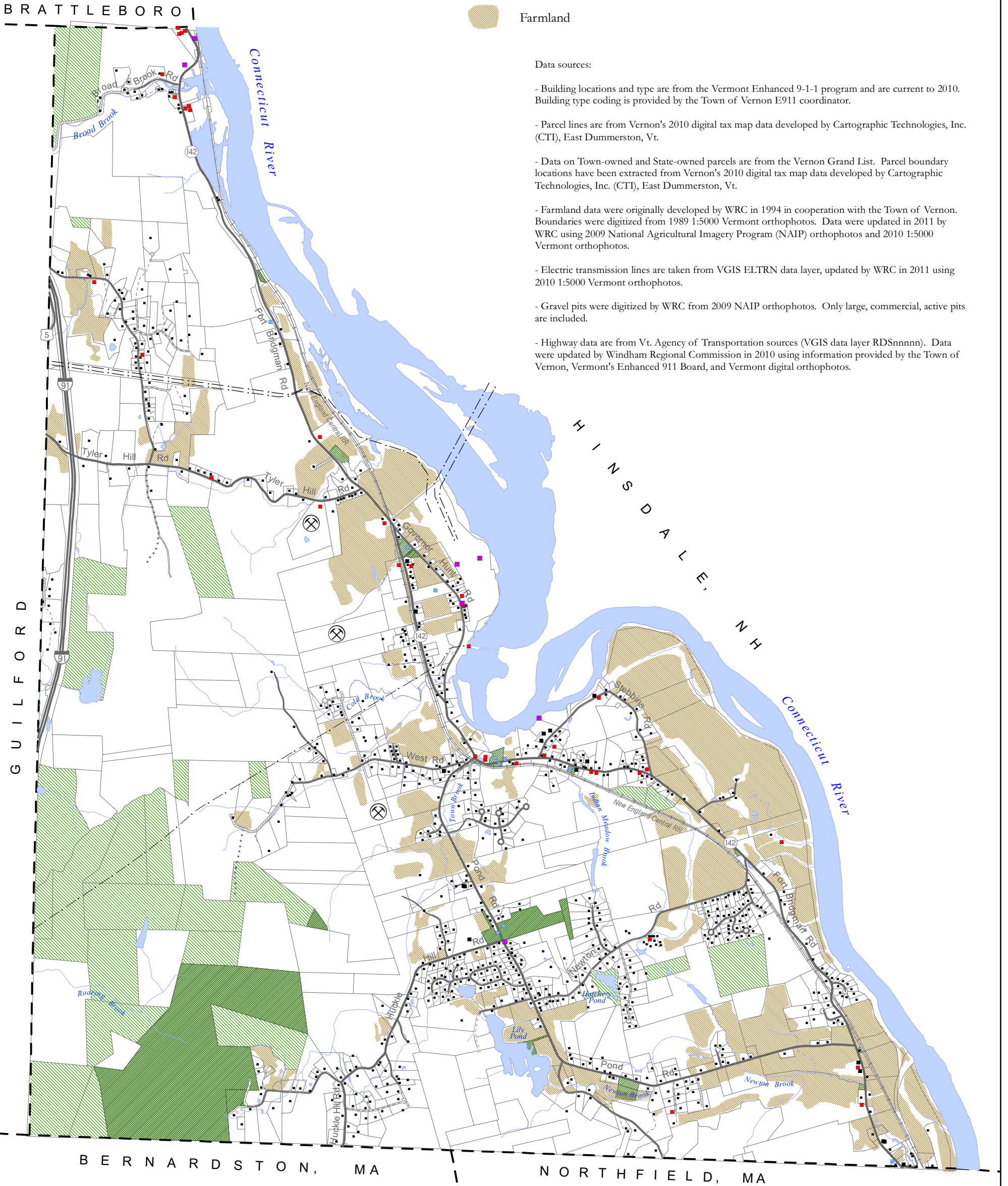
▬ Streams, river, pond

▬ Parcel line

▨ Town of Vernon land

▨ State of Vermont land

▨ Farmland



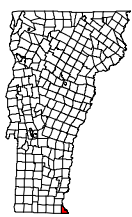
### Data sources:

- Building locations and type are from the Vermont Enhanced 9-1-1 program and are current to 2010. Building type coding is provided by the Town of Vernon E911 coordinator.
- Parcel lines are from Vernon's 2010 digital tax map data developed by Cartographic Technologies, Inc. (CTI), East Dummerston, Vt.
- Data on Town-owned and State-owned parcels are from the Vernon Grand List. Parcel boundary locations have been extracted from Vernon's 2010 digital tax map data developed by Cartographic Technologies, Inc. (CTI), East Dummerston, Vt.
- Farmland data were originally developed by WRC in 1994 in cooperation with the Town of Vernon. Boundaries were digitized from 1989 1:5000 Vermont orthophotos. Data were updated in 2011 by WRC using 2009 National Agricultural Imagery Program (NAIP) orthophotos and 2010 1:5000 Vermont orthophotos.
- Electric transmission lines are taken from VGIS ELTRN data layer, updated by WRC in 2011 using 2010 1:5000 Vermont orthophotos.
- Gravel pits were digitized by WRC from 2009 NAIP orthophotos. Only large, commercial, active pits are included.
- Highway data are from Vt. Agency of Transportation sources (VGIS data layer RDSnnnnn). Data were updated by Windham Regional Commission in 2010 using information provided by the Town of Vernon, Vermont's Enhanced 911 Board, and Vermont digital orthophotos.

# Natural Resources

## Town of Vernon, Vt.

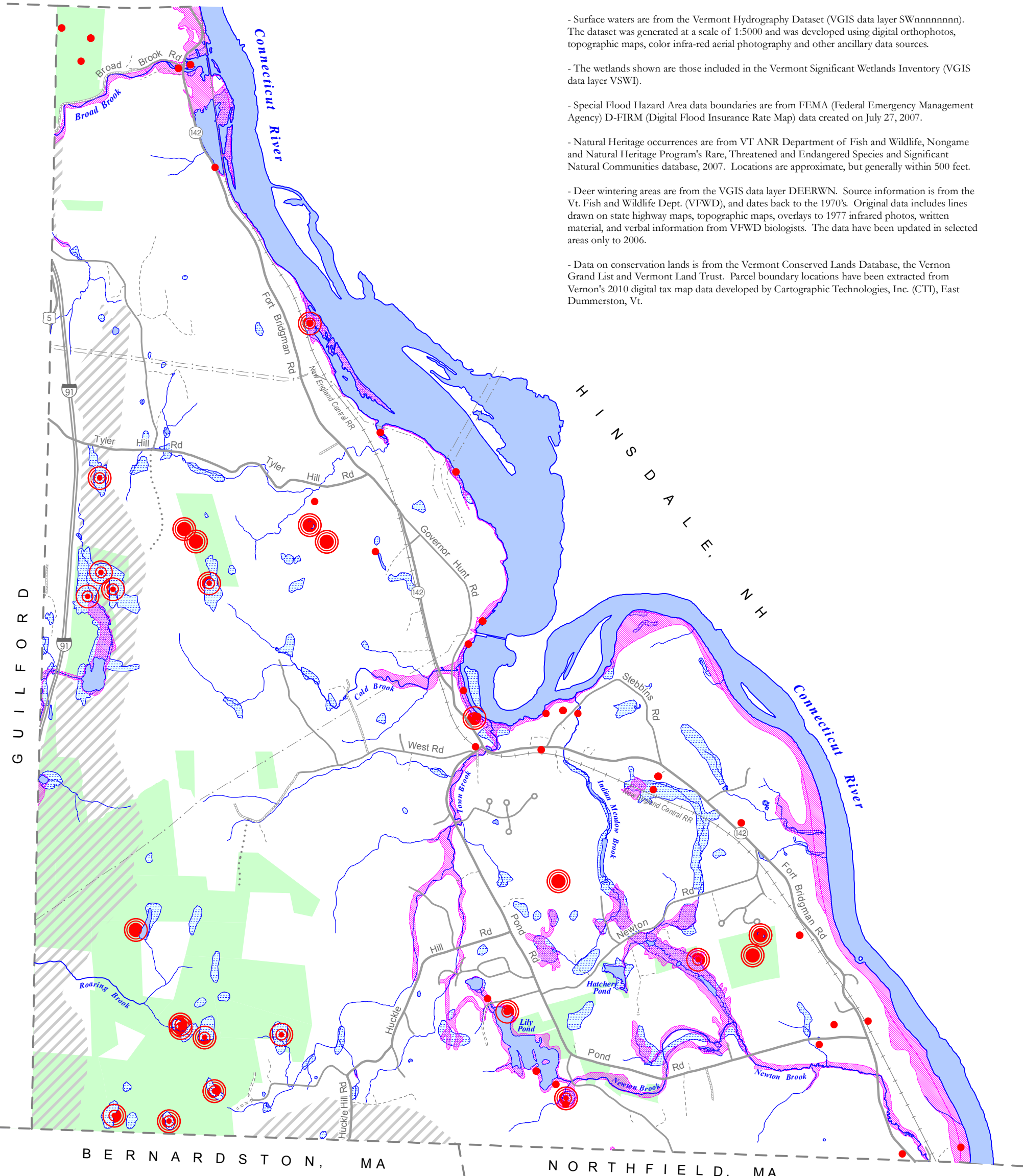
July 2011



0.5 0 0.5 1 Mile  
scale 1:36,000 1 inch = 3,000 feet

- Streams, river, pond
- Wetlands
- Special Flood Hazard Area
- Significant Natural Community
- Natural Heritage occurrence: plant or animal
- Deer wintering area
- Conservation land, public or privately owned

B R A T T L E B O R O



Data sources:

- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWnnnnnnn). The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infra-red aerial photography and other ancillary data sources.
- The wetlands shown are those included in the Vermont Significant Wetlands Inventory (VGIS data layer VSWI).
- Special Flood Hazard Area data boundaries are from FEMA (Federal Emergency Management Agency) D-FIRM (Digital Flood Insurance Rate Map) data created on July 27, 2007.
- Natural Heritage occurrences are from VT ANR Department of Fish and Wildlife, Nongame and Natural Heritage Program's Rare, Threatened and Endangered Species and Significant Natural Communities database, 2007. Locations are approximate, but generally within 500 feet.
- Deer wintering areas are from the VGIS data layer DEERWN. Source information is from the Vt. Fish and Wildlife Dept. (VFWD), and dates back to the 1970's. Original data includes lines drawn on state highway maps, topographic maps, overlays to 1977 infrared photos, written material, and verbal information from VFWD biologists. The data have been updated in selected areas only to 2006.
- Data on conservation lands is from the Vermont Conserved Lands Database, the Vernon Grand List and Vermont Land Trust. Parcel boundary locations have been extracted from Vernon's 2010 digital tax map data developed by Cartographic Technologies, Inc. (CTI), East Dummerston, Vt.

H I N S D A L E , N H

G U I L F O R D

B E R N A R D S T O N , M A

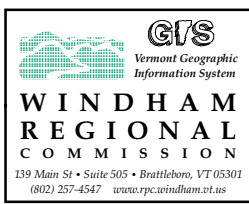
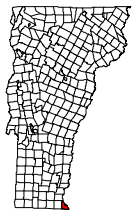
N O R T H F I E L D , M A



# Transportation, Community Facilities, and Utilities

## Town of Vernon, Vt.

July 2011

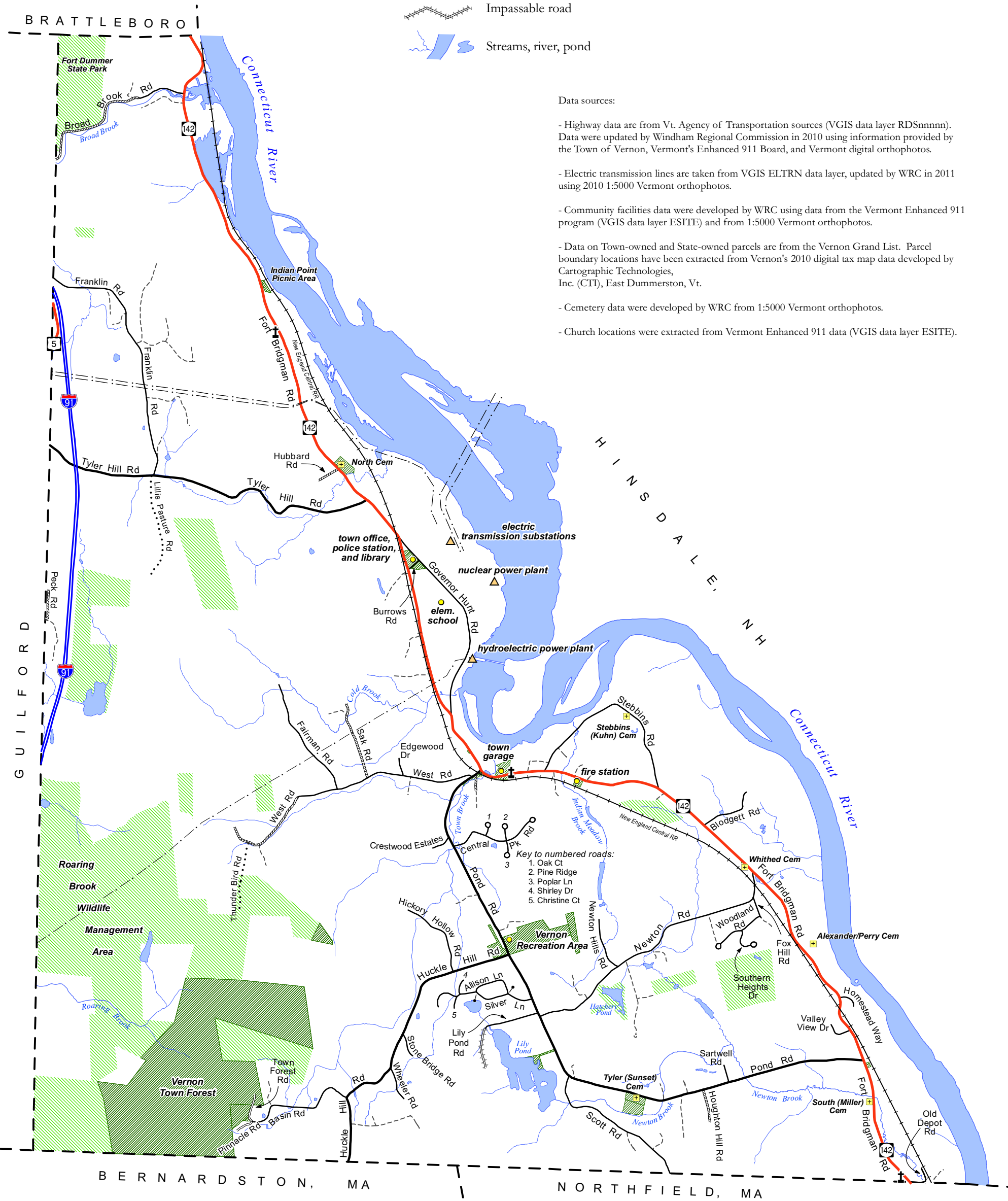


0.5 0 0.5 1 Mile  
scale 1:36,000 1 inch = 3,000 feet

- Interstate Highway
- State highway
- Class 2 town highway - paved
- Class 3 town highway - paved
- Class 3 town highway - unpaved
- Class 4 town highway (unpaved) \*
- Legal town trail \*
- Private road/drive
- New England Central Railroad
- Impassable road
- Streams, river, pond
- Electric transmission line
- Utility infrastructure
- Community facility
- Town of Vernon land
- State of Vermont land
- Cemetery
- Church

Data sources:

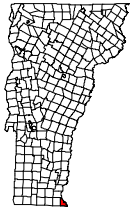
- Highway data are from Vt. Agency of Transportation sources (VGIS data layer RDSnnnnn). Data were updated by Windham Regional Commission in 2010 using information provided by the Town of Vernon, Vermont's Enhanced 911 Board, and Vermont digital orthophotos.
- Electric transmission lines are taken from VGIS ELTRN data layer, updated by WRC in 2011 using 2010 1:5000 Vermont orthophotos.
- Community facilities data were developed by WRC using data from the Vermont Enhanced 911 program (VGIS data layer ESITE) and from 1:5000 Vermont orthophotos.
- Data on Town-owned and State-owned parcels are from the Vernon Grand List. Parcel boundary locations have been extracted from Vernon's 2010 digital tax map data developed by Cartographic Technologies, Inc. (CTI), East Dummerston, Vt.
- Cemetery data were developed by WRC from 1:5000 Vermont orthophotos.
- Church locations were extracted from Vermont Enhanced 911 data (VGIS data layer ESITE).



# Future Land Use

## Town of Vernon, Vt.

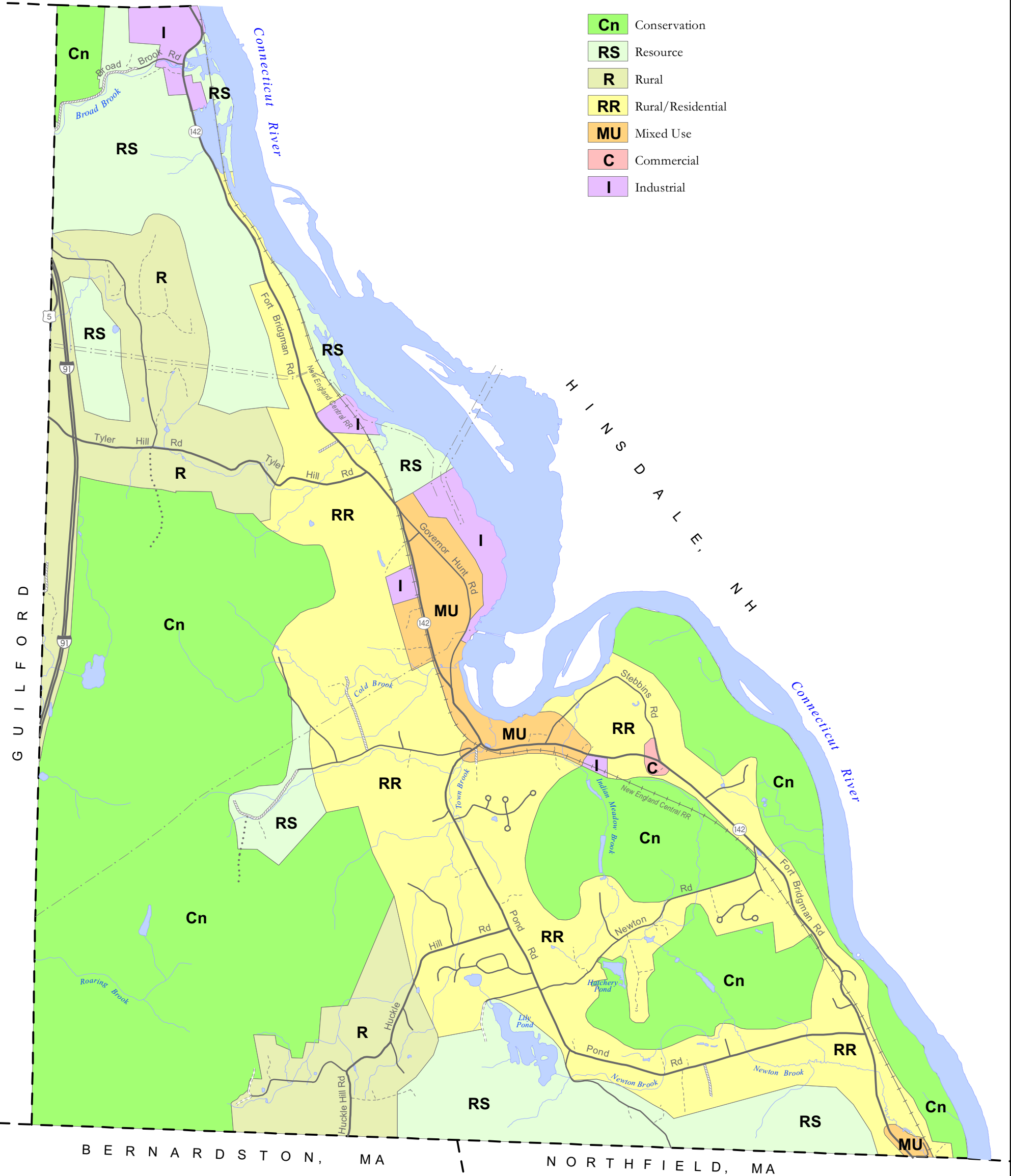
May 2013



0.5 0 0.5 1 Mile

scale 1:36,000 1 inch = 3,000 feet

BRATTLEBORO



- Cn** Conservation
- RS** Resource
- R** Rural
- RR** Rural/Residential
- MU** Mixed Use
- C** Commercial
- I** Industrial

BERNARDSTON, MA

NORTHFIELD, MA

## 16-ADDENDUM

### 6- EDUCATION

#### School and Library

For the past few years, the school has operated a food waste collection program through the Town's contracted trash hauler. Students (and staff) place leftover food into a separate trash bin. The food waste and soiled paper and cardboard are gathered and transported to a composting operation on a farm in Greenfield, MA.

### 7- ENERGY

#### Importance of Energy Planning

Energy is an important factor in the economic, environmental, and social well-being of Vernon. The cost of energy, including residential, commercial, and governmental use (heating, electricity, transportation, etc.) is one of two facets of energy affecting the town. In addition to cost, the presence of Vermont Yankee Nuclear Power Station and the Vernon Hydroelectric Station make Vernon a significant producer of electrical power in the state of Vermont.

Energy policies have traditionally been the responsibility of State, Federal and international bodies, with relatively little role for local governments. Vernon has been the exception here in the state of Vermont. Vernon has always been at the forefront of innovation in energy production. Construction of Vernon Hydro station began in 1907 as one of the first hydro-electric dams on the Connecticut River and has produced clean, safe electricity since that time. In the mid-1960's, Vernon actively courted the Vermont electric companies planning to construct the state's first nuclear-powered electric generating station. Vernon was successful in providing a location and local support for this clean, efficient, reliable power station and has supported the plant by a large majority since it was constructed and produced its first commercial power in 1972.

#### Energy Use

In Vernon, natural gas is not available, so the proportion of oil, propane, and electricity might be higher than that shown for the entire state. According to the *Vermont Draft Energy Plan (2008)* the per capita demand for energy in Vermont has shown steady growth. Between 1990 and 2004, per capita energy demand rose roughly 30%.

Home heating and transportation account for the greatest energy use. Vernon property owners use a variety of energy sources for home heating. According to the 2000 Census, the majority of housing units used fuel oil (64.8%) as the primary heating fuel. The remaining heat fuel sources include wood (21%), propane (10.9%), electricity (1.9%), coal or coke (0.6%), solar energy (0.4%), and other fuel (0.4%). These figures only represent the primary heating source and do not illustrate whether or not there are multiple fuel sources being used.

#### Electricity

Nearly 40 percent of the energy consumed in Vermont comes from electricity. Green Mountain Power Corporation provides electric distribution service in Vernon. Electric power is brought into and out of Vernon via four electric transmission lines. A 69 kV

National Grid Transmission line runs in the vicinity of and roughly parallel to Route 5 from Bellows Falls to the Vernon Dam. A double circuit 345 kV Vermont Electric Power Company (VELCO) transmission line runs from the VELCO substation adjacent to Vermont Yankee through the western part of Town, eventually extending to Cavendish, Vermont. Two other 345 kV lines also connect to the substation; one going to Fitzwilliam, NH and the other to Northfield, MA.

## **CONSERVATION AND ENERGY EFFICIENCY PROGRAMS AVAILABLE TO VERNON RESIDENTS**

Southeastern Vermont Community Action (SEVCA). SEVCA is the service provider in Windham County that runs the Weatherization Assistance Program. Weatherization services, which include an energy audit, diagnostic tests, analysis, and installing measures, are available at no cost to income-eligible homeowners and renters. SEVCA is also available to help in the event of a heating emergency. They can help purchase oil, kerosene, propane, or wood. In addition, they also work with electric companies in order to prevent disconnection and help negotiate payment plans.

Efficiency Vermont. Efficiency Vermont is the State's provider of energy efficiency services. They provide technical and financial assistance to electrical consumers for the purpose of improving the efficiency of existing and new facilities.

ENERGY STAR Home Rebates. Energy Star Homes meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and U.S. Department of Energy. Efficiency Vermont provides free financial, design, and technical to help build an ENERGY STAR qualified home. Benefits of being an ENERGY STAR home include financial incentives such as product rebates; utility savings; higher resale value; increased comfort and air quality; and other environmental benefits.

Vermont Housing Finance Authority's Energy Saver Loan Program. Administered by Windham Housing Trust, this program offer low interest loan funding for homeowners for an energy audit and improvements specified in the audit.

### **Potential for Local Energy Production**

Energy resources within Vernon include renewable resources such as wood, solar, hydro, and wind. Additionally, nuclear-powered electric generation is produced in Vernon on a very large scale with no significant negative impact on the production of greenhouse gases.



## **8 - NATURAL RESOURCES**

### **Introduction**

A major portion of the total land area of the Town of Vernon has an ecological and/or a resource value of critical importance and should be protected. These lands include productive agricultural and forestlands; mineral, stone, and sand deposits; flood plains, wetlands; groundwater storage and recharge areas; ponds and streams; relatively high elevations and steep slopes; and valuable scientific, historic, architectural, archaeological and wildlife resources, and other areas of significant ecological value. Many of these are identified on the Town Plan Maps and described in the Plan.

### **Agricultural Resources**

Vernon owes much of its present character to the continued use of large land areas for agricultural production associated with dairy. As recently as 2010, one Vernon farmer was recognized for producing the highest yield of corn per acre in the state. After forestland, the major land use in the town of Vernon is agriculture. In order to establish sound policy about the use and preservation of Vernon's agricultural lands, there must be a common understanding of the agricultural resource base. This section deals with agricultural soils and agricultural land, two distinct, yet often overlapping agricultural resources.

#### Unaitis Farmland Conservation Project

The Town of Vernon assisted Marjorie Unaitis to transfer part of her dairy farm to David and Phyllis Newton. This was accomplished by the Town purchasing 76 acres of farmland from the 200-acre Unaitis Farm. The voters approved this \$40,000 purchase in 1983 using money from the Farmland Protection Fund. This purchase by the Town was considered a bargain-sale, that is, at a price less than fair market value. The Newtons purchased the farmhouse, barns, and some land around the buildings at fair market value and leased the 76 acres from the Town. Five years later, in 1988, the Town sold the farmland to the Newtons for the same price replenishing the Town's fund. The land was sold subject to a conservation easement held by the Town of Vernon and Vermont Land Trust. Each year the Vermont Land Trust stewardship staff visit the property to check in and monitor the conservation easement.

#### Cersosimo-Dunklee Farmland Conservation Project

In 1999, Alfred and Jeff Dunklee had an agreement to purchase 101 acres of farmland on Newton Road from Cersosimo Industries Inc. This land was formerly part of the Whitaker Farm and had been rented by the Dunklees for a number of years. This was considered productive farmland and important for the Dunklee's dairy farming operation. The fair market value of the land, since it was suitable for development, was substantially in excess of what could be justified as a purchase price for strictly agricultural use. The Farmland Advisory Committee recommended that the Town purchase development rights on this property for \$230,000 from the Dunklees upon their acquisition of the property from Cersosimo Industries Inc. for \$400,000. The Town of Vernon at a special town meeting on April 19, 1999 voted 94 to 11 to support this conservation project. The Dunklee's contributed the farmland value of \$170,000 to the project on their own. In

return for the Town's contribution towards this conservation project, the Dunklees agreed to certain conservation restrictions. These restrictions define the permissible agricultural, forestry, and other uses consistent with the maintenance of the property as open space, and limit future development, without the consent of the Selectmen, to a single dwelling and accessory and farm structures. The conservation easement to this property is held by the Town of Vernon without any outside partners.

### **Farmland Protection Fund Policy**

The Town shall continue the Farmland Protection Fund which was established on March 2, 1982. This fund is to be used to acquire or match state, federal, and other funds for acquiring, interests in high priority threatened agricultural land, acquire development rights, and may be recommended for use as supplemental state and local tax assistance, all uses subject to approval by vote at a Special Town Meeting or a Regular Town Meeting.

### **Wildlife and Habitat**

Vernon has a very mild climate for Vermont; in addition it lies along the flood plain corridor of the Connecticut River and in some areas contains substantial sandy soils. These characteristics allows species that are at the northern extreme of their range to be found in Vernon and often in no other town in the Connecticut River drainage of Vermont or in some cases, nowhere else in Vermont at all. Using the many unusual plants and natural community types found in Vernon are quite a few rare reptiles and amphibians.

The reptiles are:

Spotted Turtle (*Clemmys guttata*). Vernon has one of only three known populations. State endangered, S1, high priority Species of Greatest Conservation Need (SGCN). Since this species is associated with wetlands, large buffers (500 ft. would be good, but even 100 would help) should be applied to protect the wetlands where it is known.

North American Racer (*Coluber constrictor*). Vernon shares with Guilford the only known population of this species in VT. State Threatened, S1, high priority SGCN. Minimizing development near the powerlines and roads crossing the powerlines would help. Maintaining open pasture, or brush-hogged areas (not cropland) would help.

Northern Watersnake (*Nerodia sipedon*). Vernon has the only known population of this species in the Connecticut River drainage of VT. Not listed, S3, medium priority SGCN. Large buffers near wetlands would help. Vernon Hatchery Pond is (or was) a stronghold.

Eastern Hog-nosed snake (*Heterodon platirhinos*). Vernon appears to have the first and only known population of this species in Vermont. Not listed or ranked. Officially hypothetical based on the two young found last fall (2010). Since this species has been found in the uplands around the Spotted Turtle wetlands, both species would benefit from buffers and land conservation in those areas.

Eastern Ribbonsnake (*Thamnophis sauritus*). UVM has specimens collected from the same wetland area that the Spotted Turtle uses, but these records are historic. Since then the snake has not been seen in Vernon. Only a single snake of this species has been located in the VT portion of the Connecticut River Valley (Putney). This is an S2, special concern, high priority SGCN.

The amphibians are:

Fowler's Toad (*Anaxyrus fowleri*). The open lands along Stebbins Road and connecting to the Connecticut River have the only known population of this species in Vermont. Not listed, but S1 and high priority SGCN. Land conservation in this area is the key.

Four-toed Salamander (*Hemidactylium scutatum*). This rare salamander is currently only known from two locations within the Connecticut River drainage of VT. It shares habitat with the Spotted Turtle and Hog-nosed Snake. It is not listed, but has a state rank of S2, is a special concern species with medium priority SGCN. Buffers and land conservation within 500 ft. of those wetlands would help conserve this species.

Deeryards: White tailed deer are a valuable resource to the Town of Vernon, providing opportunities for hunting and recreational viewing and filling an essential ecological niche in the community's natural environment. The heavily wooded, rugged and low population characteristics of the western portion of Vernon provide ideal habitat for wintering deer populations. These critical deer wintering areas comprise approximately 672 acres or approximately five percent (5%) of the Town's total land area.

Deer wintering areas can be completely destroyed or their carrying capacities greatly reduced by some activities of man. Of primary concern are housing, recreational and industrial development, highway development and poorly managed logging operations.

### **Wetland Areas**

Wetlands throughout Vernon provide ideal habitat for a variety of plant and animal species. Many avian inhabitants such as ducks, geese, rails, and herons, as well as numerous songbirds and birds of prey rely on wetlands for nesting, brood rearing and migration rest areas. Wetlands are also essential habitat for muskrat, beaver, otter, mink, raccoon, a number of fish species, and a variety of reptiles and amphibians.

Rivers and Streams: Town Brook, Newton Brook, Cold Brook, and Roaring Brook are located in Vernon and support small, but self-sustaining populations of brook trout.

Broad Brook, located in the northern part of the town, has three species of trout, Brown, rainbow, and brook trout, and receives reasonably high angling pressure.

The Connecticut River is the focal point for restoration of two anadromous fish species: Atlantic salmon and American Shad, to central New England. In order to provide the salmon and shad access to their historic spawning and nursery waters in the upper mainstream as well as several critical tributaries, a fish ladder was constructed at the Vernon Hydroelectric Station. Since going into operation during the spring of 1981, both

salmon and shad have been observed passing upstream through this facility. Shad have responded quickly to the opening of new habitat in the river adjacent to Vernon with young shad being produced during each year since the fish ladder went into operation. Presently, sufficient numbers of adult shad ascend the Connecticut River to the Vernon area to provide sport fishing, particularly in the vicinity of the dam and Stebbins Island.

Aside from anadromous species, the Connecticut River supports a diversity of resident fish species including small mouth bass, largemouth bass and walleye. Although less abundant in the river than the three preceding species, brown and rainbow trout frequent the Vernon area particularly at the mouths of the smaller tributaries to the river. Pan fish common to the area include yellow perch, white perch, rock bass, brown bullhead, common carp, and several sunfish species. The Connecticut River is valuable habitat for waterfowl and wading birds. Ospreys and Bald Eagles are also frequently observed

Whether it is the Connecticut River or any of the small streams located in Vernon, the continued ability of these waters to support wildlife resources is reliant upon the quality and quantity of their habitat. Stream relocation and channelization, as well as pollution, result in the long-term destruction of essential habitat.

The Town of Vernon is rich in areas of high ecological value. The Vermont Nongame and Natural Heritage Program tracks native rare plants and animals and plant communities that are threatened or endangered. These species and communities are considered rare because they have particular habitat requirements, are at the edge of their ranges, or are vulnerable to disturbance or collection. The general locations of these species and habitats are mapped using GIS and species descriptions are available through the state program. These species and their habitats deserve an extra level of protection.

Roaring Brook Wildlife Management Area (RBWMA) consists of a number of parcels totaling 1,428 acres located in the towns of Vernon (1,289.52 acres) and Guilford (138.55 acres), Vermont. The parcel abuts the northbound lane of I-91 from the Massachusetts state line northward for 2.4 miles. The entire property is on steep to gently rolling terrain. Public access to the parcel is generally poor. The parcel is composed of 1,002 acres where the State holds all rights (fee simple), 386 acres where the timber rights are privately owned, and 38 acres where the State owns only hunting rights. The Vermont Department of Forests, Parks & Recreation is drafting a long term management plan as this Plan is written in 2011.

The combination of the RBWMA, Vernon Town Forest, several undeveloped inholdings, large private parcels to the north and east devoted to forest management, and conserved lands to the south in Massachusetts, the 5,000 acre Satan's Kingdom Wildlife Management Area, results in a large area of forested habitat that can fulfill all the needs of a number of wildlife species. White-tailed deer and turkey are common and abundant game species. The Eastern Racer, an endangered species of snake, is found on the property along with vernal pools and wetlands that support a wide variety of amphibian and bird species. Bat surveys indicate an atypical abundance of bat species including little brown, northern long-eared, and big brown bat.

Important habitat features include large areas of deer wintering habitat, stands of oak and hickory that provide wildlife food, numerous wetlands, and Eastern Racer habitat along the Interstate and power corridor. The RBWMA is adjacent to several large conserved parcels in Massachusetts (conserved lands map on page 14) creating an approximately 5,000-acre area of conserved habitat in the region.

Roaring Brook is used primarily for hunting and, to a lesser extent, snowmobiling. There is evidence of considerable and destructive off-roading activity. Currently there is limited legal access to the parcel. The Vernon Town Forest, which abuts this parcel on the east, has good access and a trail system linking the parking area to the more prominent black gum swamp on the town forest.

### **Fragile Areas**

Fragile areas are irreplaceable components of Vernon's natural heritage. They are valuable for maintaining a diversity of natural communities, providing refuges for rare and endangered plants and animals, and for providing standards by which to judge the health of the environment. They have great biological, educational and social value.

The Vernon Black Gum Swamp: Three distinct black gum swamps and several groups of individual black gum swamps are located in the J. Maynard Miller Town Forest. The largest of these swamps straddles the boundary between the Vernon land and the Roaring Brook Wildlife Management Area, which is controlled by Vermont's Fish and Wildlife Department. This five-acre swamp is listed as one of the 64 best natural areas in the State. Several plants, which are rare in Vermont, are found here. The black gums are the most conspicuous.

The black gum swamps are worth preserving. They are important sources of scientific information and a valuable educational tool. Isolated pockets of a species may be genetically unique. Because they were never logged some trees are very old (some individuals perhaps as much as 400 years old). These swamps give us an idea of what a virgin forest was like. The wide diversity of plants in these small areas makes these swamps a valuable educational resource for schools and nature groups. The impressive sight alone of these thirty-inch diameter trees with their deeply fissured bark and broken tops is enough to justify their protection.

The community of plants in the Vernon Black Gum Swamps is fragile. Although the old gums still appear to be healthy and younger gums are growing nearby, many factors could destroy the swamps as we know them. Black gums prefer warmer climates; several unusually cold winters could kill them. A strong windstorm could uproot their shallow root system. Careless logging, off-road vehicles, or heavy hiker visitation could cause soil and organic matter to wash down into the swamp basins and suffocate the roots. Well meaning visitors could kill the trees and other rare plants simply by trampling and compacting the soil.