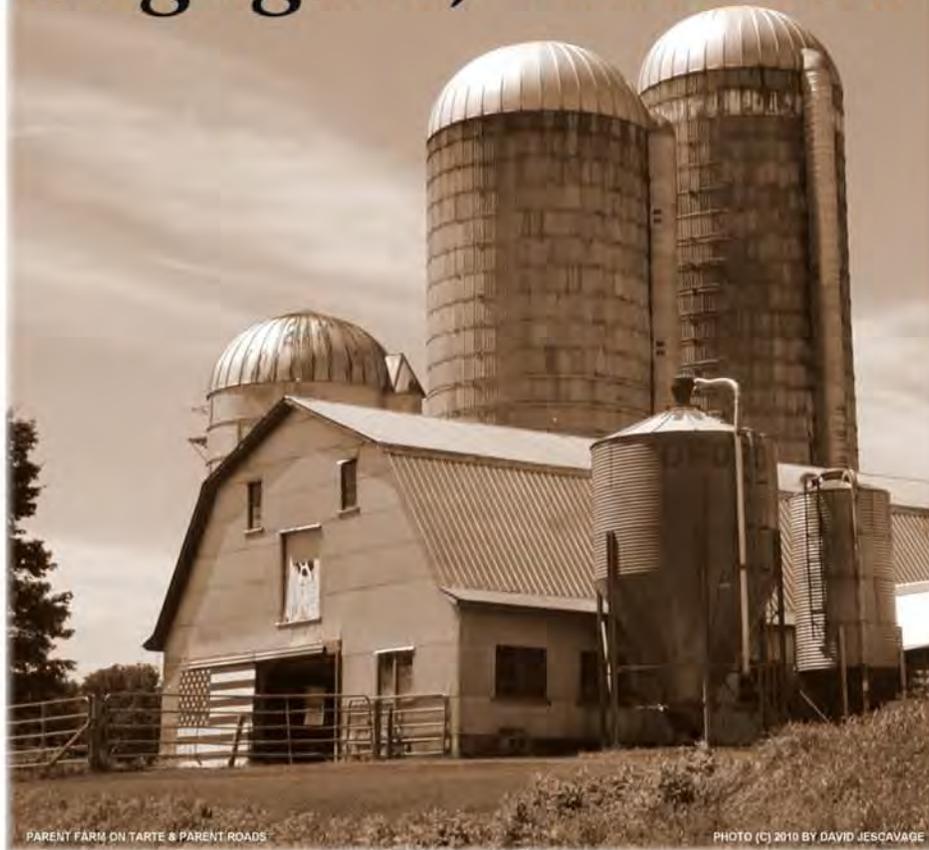


TOWN PLAN

Highgate, Vermont



The Dairy Farming Capital Of Vermont

2010 - 2015

Prepared by the Highgate Planning Commission
Highgate Town Office, PO Box 189, Highgate, VT 05459
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With the assistance of and mapping services by the
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2010 – 2015 Highgate Town Plan

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CHAPTER 1

Introduction

PURPOSE

The purpose of a municipal plan is to help guide decision-makers to chart the future of a community. A plan is a town's vision for the future. It states related goals and objectives based upon a brief reflection of the past and an analysis of existing conditions. A plan is developed from an established planning program. This planning program involves the public in a variety of ways. Through this collective effort, the vision and recommendations are developed with the best interests of the town as a whole in mind. In other words, a town plan is a calculated vision that is put together by the residents of the town.

If the recommendations of the Highgate Town Plan are implemented, the quality of life in Highgate can be positively affected. The Plan addresses inter-related topics including land use patterns, population, housing, community facilities and services, transportation, education, natural resource features, historic, cultural, and archaeological resources, energy, and economic development.

Recommendations within the Municipal Plan are based on an analysis of current conditions, the input of many residents, and projections of housing, population, and development trends in the Town and surrounding region. Though the goals and recommendations of this Plan are long-term, it is expected that Highgate will re-examine them periodically and amend the Plan as needed and as required by law.

Highgate Town Officials engage in an ongoing planning program for additional reasons including:

- Providing additional information and data to guide decision-makers in developing new policies;
- Identifying areas where additional study is needed; and
- Providing a foundation for developing a capital program and amending the zoning and subdivision bylaws.

A town plan will help Highgate control its future by providing it with the means to control change. A town plan does that by providing the community with a plan of action, or blueprint, which shows a community what it will be like in the future. A town plan shows a community what things are going to stay the same and what things are going to change. It defines how those changes are going to happen, and how quickly, or slowly, they are going to take place. A town plan gives Highgate the power to guide change, and the pace at which change will occur, so that change does not control the Town's future.

AUTHORITY

The Town of Highgate is authorized to prepare and adopt a Municipal Plan via Chapter 117, Title 24 of the VSA (Vermont Municipal and Regional Planning and Development Act). Section 4382 of the Act dictates what needs to be included in a plan. The intent of the law is to encourage a

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

PLANNING PROCESS

A Highgate Town Plan was developed and adopted in 1977, with re-adoption of the original Plan in 1983. In 1988, the 1983 Plan expired, and given accelerated growth in population and housing activity since 1980, an update/revision of the current Plan was necessary. The 1988 Town Plan was developed by a collaborative effort between the Town and the Northwest Regional Planning Commission. The current Town Plan was first adopted in 2000 and then revised in 2004. This latest version was updated in 2010 again with assistance from the Regional Planning Commission.

Under current law, Chapter 117 of Act 200, a municipality must address ten (10) elements in its plan development which are the following: a statement of objectives, policies, and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment; a land use plan; a transportation plan; a utility and facility plan; a statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources; an education plan; a recommended program for the implementation of the objectives of the development plan; a statement indicating how the plan relates to development trends and plans for adjacent municipalities, areas, and the region developed under this title; an energy plan; and a housing element that shall include a recommended program for addressing low and moderate income person's housing needs. In order to develop regulatory mechanisms (bylaws) appropriate to guide development, a plan must first be adopted by the Town Select board. Once adopted, the plan becomes the basis for development and enactment of zoning/subdivision regulations.

ROLE OF THE HIGHGATE PLANNING COMMISSION

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

The role of the Commission is ongoing. Changing community conditions, preferences, and priorities call for consistent monitoring of Plan objectives. Amendments to the Plan may be necessary from time to time and the Commission has responsibility for this task.

CHAPTER 2

Visions for the Future of Highgate

Growth is destined to happen. How that growth affects the character and quality of life in the Town is the concern of every resident of Highgate. The following visions serve as guidelines for the future.

- *The preservation of the character of Highgate and the protection of our natural assets will remain foremost in the Plan for growth of our Town.*
- *A commitment to our children, families, land, water, and natural beauty will continue to make our Town special and unique to year-round residents as well as our summer tourists and visitors.*
- *Town character will be a factor in the businesses that look towards Highgate not only as a good location for their business, but also a quality way of life for their employees.*
- *Encouraging environmentally sound, clean businesses, new technology, home-based businesses, and enhancement of our tourist trade will lead to a more stable tax base and help in reducing reliance on residential property taxes.*
- *Encouraging diverse agricultural practices will help maintain the rural landscape of the Town and help the local economy.*
- *Our young people should have employment opportunities, a continuation of the way of life in which they grew up, and the ability to live near their families and strengthen the family unit.*
- *Growth in Highgate will occur at a rate that does not exceed the Town's ability to accommodate the growth and provide essential services.*
- *Ensuring an adequate supply of safe, healthy, attractive, and affordable housing will satisfy the living requirements of all Highgate residents.*

CHAPTER 3

Social and Economic Resources

HISTORY AND DEVELOPMENT

Highgate is located in the northwestern corner of the State of Vermont in Franklin County. Three towns, a lake, and a country border it. The Town of Franklin borders it to the east, the Town of Sheldon borders it to the southeast, and the Town of Swanton borders it to the southwest. Lake Champlain makes up Highgate's western border while Quebec, Canada makes up the northern border. The Town covers approximately 33,803 acres, which is 52.82 square miles.

The Town was originally settled by Hessian troops who were German mercenaries serving in the British forces during the American Revolution. They believed they were settling in Canada. Highgate was chartered on August 17, 1763. As originally chartered, the Town was six square miles in size. Highgate, with a population of only 103 persons, was organized as a Town in 1791; the same year Vermont joined the Union. Population grew steadily until it peaked in the year 1850 with 2,653 persons. By 1920, the population had declined to 1,528 persons. At this time, there were fourteen school districts. Many businesses were located in the Town such as sawmills, shingle and cider mills, an axe factory, carriage and blacksmith shops, a foundry, grist mills, and hotels.



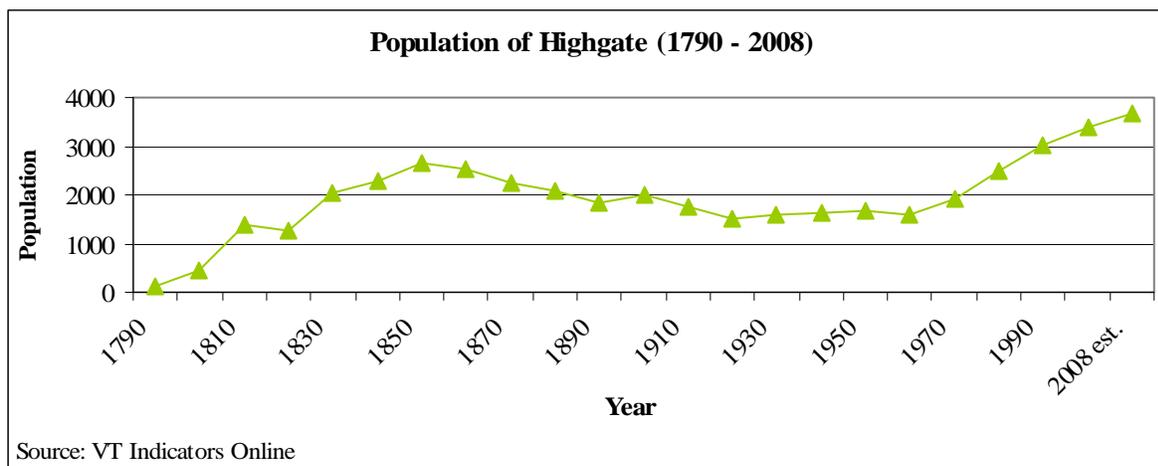
Highgate Center looking west at Desorcie's Store, circa 1900
Photo used with permission from the Highgate Historical Society

POPULATION

(Note: As this plan was being revised in 2010, the 2000 U.S. Census was the most recent available and complete population data set. For consistency with available data some sections are less up-to date than others.)

Highgate's population growth rate from 1970 to 1990 exceeded that of Franklin County and the State of Vermont (Table 3.1). However, since 1990 the growth rate in the County has surpassed that of the Town. According to the US Census, Highgate grew from a 1980 population of 2,493 to 3,297 in 2000 (36.3 percent). It is interesting to note that 1990 marked the first time since 1850 that the population exceeded 2,653. Figure 3.1 shows the population from the year 1790 until the year 2000.

FIGURE 3.1



	Census Population					Percent Change			
	1970	1980	1990	2000	2008est.	1870-80	1980-90	1990-00	00-08est.
Highgate	1,936	2,493	3,020	3,397	3,691	28.80%	21.10%	12.40%	8.15%
Franklin Co.	31,281	34,788	39,980	45,417	47,934	11.20%	14.90%	13.60%	5.54%
Vermont	444,330	511,456	562,758	608,827	621,254	15.10%	10%	8.20%	2.04%

Source: U.S. Census (1970-2000); CRS Indicators (2007)

Table 3.2 shows population projections through the year 2020. The population of Highgate is projected to increase to 3,737 by the year 2010, a jump of 10 percent from 2000. Based on the 2008 population estimate of 3,691 this projection appears accurate. Growth has been increasing at a decreasing rate since 1970 and it is expected to continue this trend. The Town's population leaped 20 percent from 1980 - 1990, 12.5 percent from 1990 to 2000, and according to the Vermont Department of Aging and Disabilities the population is projected to increase 10 percent and 8.8 percent respectively, for the following two decades.

	Census Population		Projected Population				% Change
	1990	2000	2005	2010	2015	2020	2000 – 2020
Highgate	3,020	3,397	3,573	3,737	3,901	4,066	19.7
Franklin Co,	39,980	45,417	47,617	49,583	51,701	54,065	19.04

Source: 1990, 2000 U.S. Census; MISER Population Projections for Vermont, 2000 – 2020, Vermont Department of Aging and Disabilities

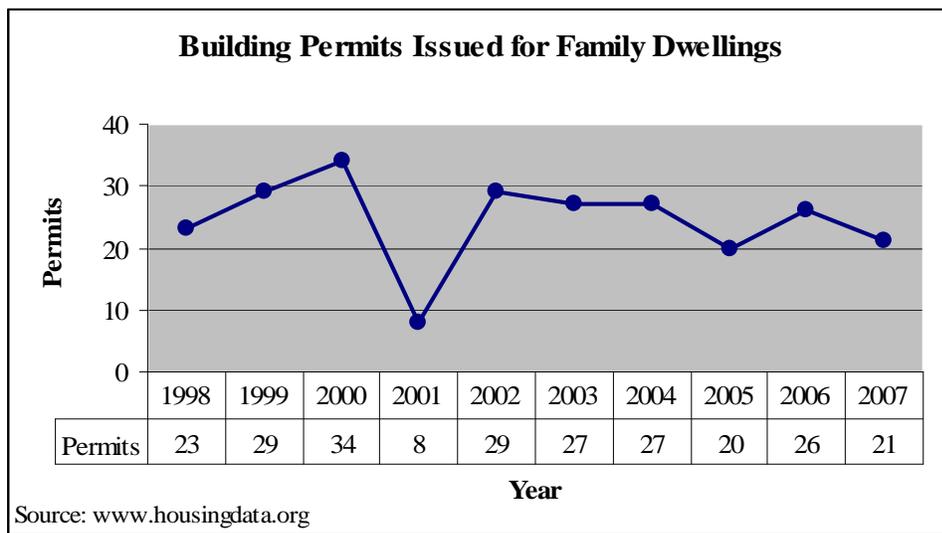
HOUSING STOCK

According to the 2000 US Census, there were 1,375 housing units in Highgate. Of these units, 965 were owner-occupied and 242 were renter-occupied year-round housing. A minority of the housing units, 168 or 12.2 percent, were classified as vacant by the U.S. Census. The Census further divides vacant housing into seasonal, for sale or rent, rented or sold (not occupied), other vacant, and for migrant workers. The “actual” vacancy rate (total vacant units minus seasonal dwellings) for Highgate and Franklin County in 2000 was 2.5 percent, a very low rate, indicating that Highgate is feeling the region’s housing shortage.

Type of Housing Unit	1990				2000			
	Highgate		Franklin Cnty		Highgate		Franklin Cnty	
	Units	%	Units	%	Units	%	Units	%
Total Housing Units	1,247	100.0	17,250	100.0	1,375	100.0	19,191	100.0
“Actual” Vacant	57	4.5	855	5.0	34	2.5	486	2.5
Total Vacant Units	253	20.3	2,924	17.0	168	12.2	2,426	12.6
Seasonal Units	196	15.7	2,069	12.0	134	9.7	1,940	10.1
For Rent	12	1.0	232	1.3	4	<1.0	133	<1.0
For Sale	10	<1.0	171	1.0	11	<1.0	136	<1.0
Rented or Sold (Not Occ.)	4	<1.0	78	<1.0	7	<1.0	72	<1.0
Other Vacant	31	2.5	369	2.1	12	<1.0	143	<1.0
For Migrant Workers	0	0.0	5	<1.0	0	0.0	2	<1.0

Data Source: 1990, 2000 U.S. Census of Population

FIGURE 3.2



The reduction in household size is a national as well as a local phenomenon. In 2000, the U.S. Census established an average County household size of 2.67, down from 2.76 in 1990. In Highgate, the average household size decreased from 3.04 in 1990 to 2.81 in 2000. As household size decreases, the number of housing units needed to house the same number of people increases. In 2000, Highgate needed approximately 1,209 year round housing units to house the 2000 population¹, while the Town held a stock of 1,241 year round housing units. If one assumes household size stabilization at about 2.70 in Highgate through the year 2010, and in consideration of population projections for Highgate, approximately 143 additional housing units will be needed between 2000 and 2010 to house the projected population. Between 1998 and 2007 the Town processed an average of 24 building permits per year for family dwellings (Figure 3.2). Using this average, the Town will add approximately 210 family dwelling units between 2000 and 2010, good indication that Highgate is providing an adequate housing stock for future population growth. However, as discussed later in this chapter, the region's stock of affordable housing is decreasing and there is no available data giving the percentage of permits issued for affordable units.

From 1998 through 2003, 139 building permits were granted for housing units, including seasonal dwellings and mobile home replacements (Table 3.4). Of the 139 building permits, approximately 63 percent were for single-family dwellings, while 24 percent were issued for new mobile homes, four percent for apartments, seven percent for mobile home replacements, and one percent for seasonal dwellings. The 60-20 percent split between single-family dwellings and mobile homes along with new construction of duplexes and multiple family units is an indication that affordable housing options are available.

¹ This figure was calculated by dividing the 2000 Census population (3,397) by the 2000 Census occupancy rate (2.81).

Permit Type	1998	1999	2000	2001	2002	2003	Total	Average
Single Family House (Not including Mobile Homes)	14	18	19	3	13	21	88	14.7
Mobile Home	8	11	4	7	3	1	34	5.7
Apartment	1	0	0	1	3	0	5	0.8
Mobile Home Replacement	1	0	3	1	4	1	10	1.7
Seasonal	1	0	1	0	0	0	2	0.3
Total	25	29	27	12	23	23	139	23.2

Data Source: Town of Highgate Building Permit Book

The area is receiving spillover growth from the greater Burlington area, thus influencing market area housing development, and is likely to feel increasing growth pressure in the future. Constraints on housing growth include a developable land supply that is limited by extensive prime agricultural land. As exhibited by housing data, developable land continues to be subdivided for housing development. In 2009, 93 land use permits applications were processed. This represents a loss in agricultural land and, subsequently a weakening of the traditional economic base. The demand for land and housing is caused by good commuter access to job markets, the majority of which are located to the south in St. Albans or Burlington, Vermont. As long as the Greater Burlington area predominates in the rapid expansion of job opportunities, the relatively inexpensive yet accessible land in Highgate will continue to attract home investors.

The role of Highgate as well as other Franklin County communities is to provide for higher density (lower price per unit) housing within areas to be served by proposed water and sewer services (village center and adjacent areas). Rental housing and other diverse forms contribute to housing a diverse labor market of various income levels. Business location decisions are based more and more on the local diversity of labor availability.

Highgate should make sustained efforts, through both the Town Plan and in bylaws, to provide for various housing densities and affordability levels. Current mobile home activity in Highgate is substantial, but conforms spatially to requirements for conventional, single-family homes.

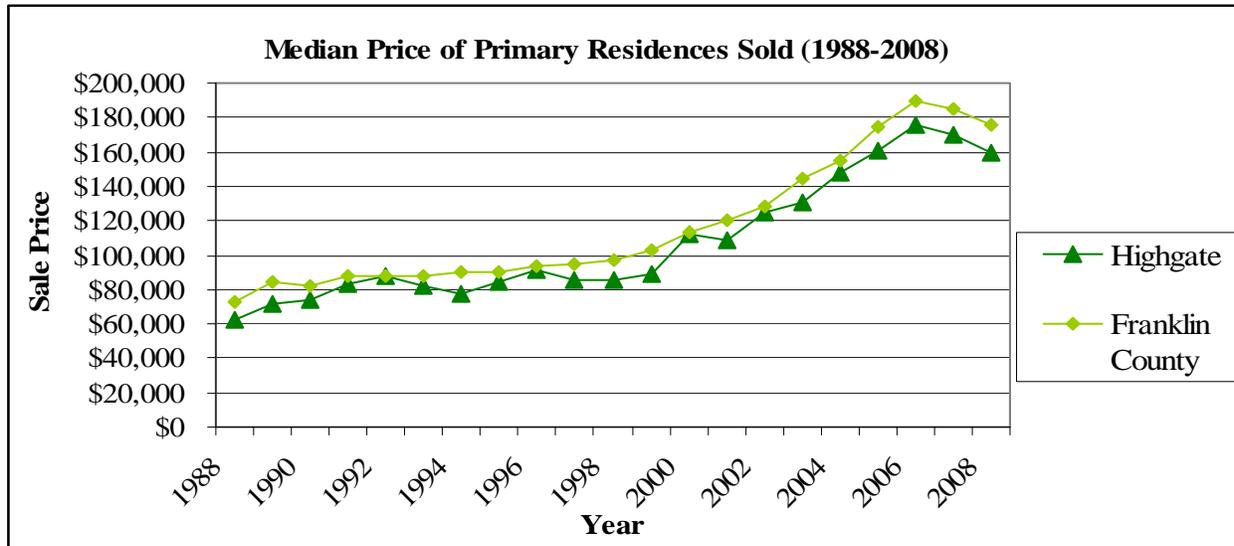
The Town adopted updated zoning bylaws, which incorporate flexible criteria for Planned Unit Development (PUD) to allow various types of housing. In addition, the bylaws were modified to encourage higher densities in the village areas (high-density districts). Three Planned Unit Developments (with seven, seven, and five units) have recently been approved. The updated zoning bylaws also include single-family dwellings as a conditional use in the Commercial and Industrial districts. This can encourage development to be more compact as well. The subdivision regulations were also updated in 2006 and the Town adopted a capital budget and program in 2004. These changes, along with other modernizations of the bylaws, should encourage housing growth to occur in a manner that prevents substantial loss of important resources and land, and that does not exceed the Town's ability to provide services.

AFFORDABLE HOUSING

The issue of housing transcends local boundaries and is a regional, state, even national issue. Affordability is a focal issue (property inflation) that has been exacerbated by federal cutbacks in

housing assistance programs. Highgate, like most other regions of the State, has experienced a rapid rise in prices for single-family dwellings.

FIGURE 3.3



Data Source: Vermont Housing Data, www.housingdata.org, based on property transfer data from the Vermont Department of Taxes.

Figure 3.3 shows the median prices of primary residences sold in Highgate based on Vermont State tax data. From 1993 to 2003, the median sale price of primary residences increased by 59 percent in Highgate and by 61 percent in Franklin County. Sale prices in Highgate are average when compared to surrounding towns, for example Swanton increased by 49 percent, Sheldon increased by 74 percent, and Franklin increased by 63 percent during the same period.

The standard federal and State definition of affordable home ownership is a mortgage (principle and interest) plus taxes and property insurance that consumes no more than 30 percent of 80 percent of the County’s median household income, or the metropolitan statistical area’s (MSA’s) median household income, if it applies. All of Franklin County has recently been added to the Burlington-South Burlington MSA; however, we are using the County’s median household income to compute affordability statistics in order to avoid skewing the results with very high figures from Chittenden County.

Table 3.5 computes the maximum affordable mortgage and affordability gap for different percentages of Franklin County’s median household income (1999). In 2003, the median sale price for primary residences in Highgate was \$126,809 (Vermont Housing Data) and 80 percent of Franklin County’s median household income in 1999 was \$33,327 (2000 U.S. Census). The maximum affordable mortgage for 80 percent of the County’s median household income (1999) was \$99,431, indicating that 80 percent of the median income could not afford a home at the 2003 median home price, leaving a gap of \$27,378. A household earning about 96 percent of the median household income (\$39,993) could afford a home at the median sale price in 2003; all annual household incomes below \$39,993 would be spending more than 30 percent of their income on housing.

Percent of HH Median Income	County Median HH Income	30% of Income		Taxes & Insurance	Income Available for Housing/Month	Maximum Affordable Mortgage	Median Sale Price for Primary Residences (2003)	Affordability Gap
		Yearly	Monthly					
100%	41,659	12,498	1,041	240	801	134,348	126,809	7,539
80%	33,327	9,998	833	240	593	99,431	126,809	(27,378)
50%	20,830	6,249	521	240	281	47,059	126,809	(79,750)
30%	12,498	3,749	312	240	72	12,143	126,809	(114,666)

Data Sources: Median Income from 2000 U.S. Census; Median Sale Price from Vermont Housing Data, 2003; Taxes and Insurance are an estimate; All other figures computed by the NRPC.

Rental housing can be more affordable than home ownership in Highgate. Affordable rent is defined by the State of Vermont as a household earning no more than 80 percent of the County’s or MSA’s median household income, if it applies, that spends no more that 30 percent of their income on rent plus utilities. According to the 2000 U.S. Census, the median contract rent in Highgate was \$503 and the median gross rent was \$617, leaving the median cost of utilities to be \$114. Highgate has a positive rental affordability gap; a household earning about 60 percent of the County median income (\$24,995) could afford the 2000 median gross rent in Highgate. However, according to the Vermont Housing Needs Assessment (1998 – 2003), prepared for the Vermont Housing Council, an affordable rental unit for a low-income family is \$457 (gross) Statewide.

The minimum wage in Vermont for the year 2009 is \$8.06/hour. A household earning one minimum wage would earn an annual income of approximately \$16,750, or about 35 percent of the County’s median household income. A household earning two minimum wages would earn an annual income of about \$33,500, or about 70 percent of the County’s median household income. A household earning one full time minimum wage income could not afford the 2000 median gross rent, while a household earning two full time minimum wage incomes (\$8.06 per hour each) could not afford a mortgage at the 2003 median home price in Highgate.

Income (1999)	Highgate		Franklin County	
	Number	Percent	Number	Percent
Less than \$10,000	54	4.5	1,173	7.0
\$10,000 to \$19,999	143	11.8	2,137	12.8
\$20,000 to \$29,999	213	17.6	2,316	13.8
\$30,000 to \$39,999	166	13.7	2,317	13.8
\$40,000 to \$49,999	198	16.4	2,287	13.6
\$50,000 to \$59,999	135	11.2	1,777	10.6
\$60,000 to \$74,999	159	13.2	2,232	13.3
\$75,000 to \$99,999	89	7.4	1,565	9.3
\$100,000 to \$124,999	33	2.7	564	3.4
\$125,000 to \$149,999	9	0.8	145	0.9
\$150,000 to \$199,999	3	0.3	115	0.7
\$200,000 or more	6	0.5	139	0.8
Total	1,208	100.00%	16,767	100%

Source: U.S. Census of Population, 2000

Table 3.6 divides Highgate households by annual income. It is interesting to note that there are about 576 households (48 percent) below 96 percent of the 1999 median household income (\$39,993), all of which would spend more than 30% of their income on 2003 homeownership costs. A smaller percentage of households, about 26 percent, would spend more than 30 percent of their 1999 household income on 2000 rental costs.

Mobile homes offer an affordable option for households that cannot afford home ownership. In Highgate, the 2002 median price for a mobile home with land was \$83,000 and without land was \$30,000. Assuming that tax and insurance rates are the same for houses as they are for mobile homes, a household earning about 70 percent of Franklin County’s median income could afford the median mobile home price with land. Mobile homes without land (usually in a rented lot of a mobile home park) are the most affordable option. As of 2001, there were five mobile home parks in Highgate, one of which charges rent for lots that include mobile homes, and four of which charge lot rents, where the mobile homes are owned. The average lot rent (includes additional required charges for water, sewer, etc.) for those four parks in 2001 was \$222. Assuming there are no other taxes or insurance, households earning about 40 percent of the County median income could afford a mobile home (owned without land).

ECONOMY

The dairy industry accounts for a significant proportion of Highgate’s economy. National and local factors have impacted the dairy industry as a whole. Therefore, diversification of the economic base at the local level is an important goal. The Franklin County Industrial Development Corporation’s (FCIDC) 2005 Regional Strategic Economic and Community Development Plan provides steps to attaining this goal. The town has previously had an Economic Development Advisory Council that also contributed to this work. However this group is inactive at this time.

The Town's economy is still largely divided between agriculture and a few related services, with most non-agricultural employment located in neighboring communities. The continued residential growth of Highgate seems assured, while industrial growth has lagged. The Town is proximate to the local job markets of Swanton and St. Albans, has a State owned airport facility and is accessible to the interchanges of I-89, and railroad facilities. Large areas of developable soils in the southwest quadrant provide adequate land for industrial expansion.

Destination	1990		2000	
	Number of Trips	% Trips	Number of Trips	% Trips
Highgate	241	20.0%	264	16.2%
Swanton	246	20.4%	247	15.1%
St. Albans City	406	33.7%	365	22.4%
St. Albans Town	NA	NA	162	9.9%
Georgia	46	3.8%	10	0.6%
Rest of Franklin Co	44	3.7%	75	4.6%
Grand Isle Co	8	0.7%	4	0.3%
Chittenden Co	158	13.1%	463	28.4%
Lamoille Co	5	0.4%	0	0.0%
Remainder VT	37	3.1%	22	1.4%
Other	14	1.2%	20	1.2%
Total	1205	100.0%	1632	100.0%

Source: 1990, 2000 U.S. Census of Population and Housing

The 2000 Census established that of 1,632 workers 16 years and over in Highgate, 1,123 (69 percent) worked within Franklin County and 264 (16 percent) worked within Highgate. This means that as of 2000, of the nearly 84 percent of workers employed outside of Highgate, the majority have

maintained jobs within the region, most likely Swanton and St. Albans. However, the number of workers who commute to Chittenden County for work has more than doubled since 1990 (Table 3.7).

The seasonal tourist and vacation home industry has maintained an impact on local tax revenues, at a decreasing rate, though, since the early part of the decade. For 2002, the value of taxable vacation property as a proportion of the Town's property tax base was 4.6 percent. However, the percentage of seasonal units as a portion of total housing units in 2000 was 9.7 percent, which represented 134 units. In 1990, seasonal units represented 15.7 percent of the total housing units with 196 and impacted the Town's property tax base by 5.2 percent. These findings imply both conversions of seasonal to year round housing and a lag in new vacation construction.

% Total Listed Value	Residential Properties	Mobile Homes	Vacation Homes	Commercial Properties	Industrial Properties	Utilities	Farms	Other
Highgate	49.6	5.7	4.6	7.7	0.4	19.1	7.0	6.1
County	59.5	3.1	6.0	11.4	4.3	5.2	5.5	5.1

Source: Vermont Department of Taxes, 2003; listed values equalized

Development of an industrial base in Highgate has been a major goal of the Town. In 1988, a study was conducted by the consultant firm of DuBois and King, Inc., to determine economic development opportunities and constraints. In brief, the study found several excellent opportunities for industrial development; it also pointed out constraints limiting competition and success of Highgate in securing additional manufacturing facilities. The provision of necessary infrastructure to accommodate more industry is cited.

Highgate does not have as many manufacturing plants and other industries as compared with the nearby towns of Swanton and St. Albans. Vermont Brick, Carroll Concrete and S.D. Ireland Concrete are manufacturers of concrete products and bricks. Raven Industries and Ray's Extruder Die Service are both die makers. Dexter Products is a manufacturer of aluminum products and Boucher Fertilizer manufactures fertilizers. Finally, VT Egg Farm is also located in Highgate. The Orman E. Croft Generating Facility and the VELCO converter station are also valuable industries to the Town.

In 1997 a grant from the Vermont Department of Community Affairs funded a study that determined the suitability for development of approximately 190 acres of Town owned land. Several development possibilities are outlined including, 127+/- acres of passive recreation land with a proposed multi-use trail. An area was proposed for senior housing, expansion of the Town's solid waste and public works facilities, and a few areas for light commercial/industrial development. The Town will work to foster the development of planned economic growth. An important goal is to increase job opportunities (reduce leakage to other regions) and increase the industrial base which will reduce residential taxes.

CHILD CARE FACILITIES

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

According to State data, Highgate currently has nine registered childcare homes and three childcare centers, with a total capacity of 115 children. The 2000 U.S. Census indicates that there are 351 children from birth to age 12 living in Highgate. Data on other options, such as siblings, stay at home parents, family care providers, un-registered childcare homes or other opportunities are not available. Therefore, there is currently no data on how the needs of the 236 children are being met.

SOCIAL AND ECONOMIC GOALS

1. Provide for commercial development that meets the shopping needs of Highgate residents.
2. Encourage development that creates employment opportunities for all citizens of Highgate.
3. Provide for a strong and diverse economy that creates job opportunities while maintaining high environmental standards.
4. Preserve and promote the important role of agriculture in the local economy.
5. Ensure development in Highgate does not negatively impact the availability of safe and affordable childcare.
6. To provide for a diversity of housing types and ownership options in a variety of settings and to ensure that housing continues to be affordable to present and future residents of Highgate.

SOCIAL AND ECONOMIC OBJECTIVES

1. Encourage concentration of commercial development particularly in the Highgate Center Downtown area through PUD's.
2. Restrict strip development that relies on car travel or discourages other modes of transportation such as walking and bicycling.
3. Encourage infill and the reuse of older, centrally located buildings to concentrate development and maintain Highgate's rural characteristics.
4. Encourage agriculture and forestry through supporting value added industries and locally grown products.
5. Actively encourage the development of light industrial and commercial uses for appropriate land areas.
6. Actively encourage industries that promise the highest employment potential to the citizens of Highgate.
7. Encourage development of industries which project the greatest taxable base to the community and/or which provide a base adequate to cover any increased cost in municipal services.
8. Maintain and improve infrastructure that positively influences industrial location decisions.
9. Seek external funding sources to support improvements in infrastructure.
10. Explore new partnerships and funding options with groups and organizations including the Lake Champlain Housing Development Corporation, the Vermont Land Trust, and the Vermont Housing Finance Agency to preserve and enhance the supply and diversity of housing opportunities and ownership options at all affordability levels.

11. Identify the needs of special needs populations including those with disabilities, the elderly and low income households, and work to ensure the continued provision of appropriate housing.
12. Review zoning and subdivision bylaws to allow for higher density housing in appropriate locations in and near the Center.
13. Encourage re-establishing an Economic Development Advisory Council

CHAPTER 4

Natural and Cultural Resources

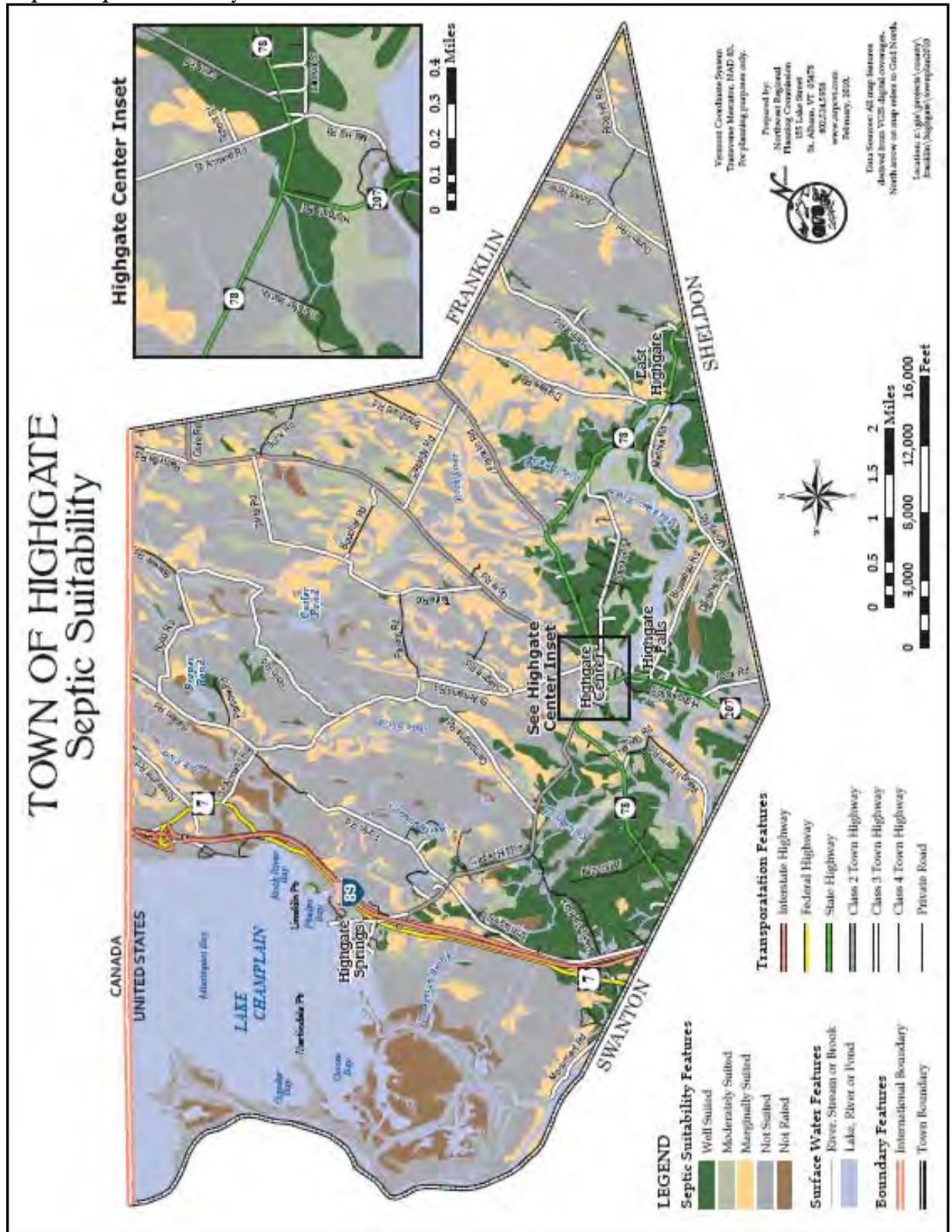
NATURAL RESOURCES

SOILS

Soil quality is an important physical factor governing the use of land in rural areas. Soils are classified based on their structure, form, composition, and suitability for various types of development. The most widely used classification system is that of the U.S. Natural Resource Conservation Service (NRCS). The latest soil survey of Franklin County was done by the NRCS in 1998.

Soil characteristics generally depend on particle size (sand, silt, and clay) and water content. Poorly drained, fine-grained (clay) soils have the greatest limitations for most types of development, especially for anything that requires on-site sewage disposal. A good portion of the northern boundary of Highgate, extending south to the Town center is characterized by such poorly drained, silt and clay soils. Upland areas intersperse the dominance of the latter with deep, somewhat excessively drained sandy soils, which are either moderately or marginally suited for on-site sewage disposal. In addition, soils with slopes greater than 20 percent pose severe limitations, with potential seepage problems and slope failure. In total, there are 16,594 acres (43 percent of total land area) of soils not suited for on-site sewage disposal. See the Septic Suitability Map for a complete septic suitability survey of the Town.

Map 4.1 Septic Suitability



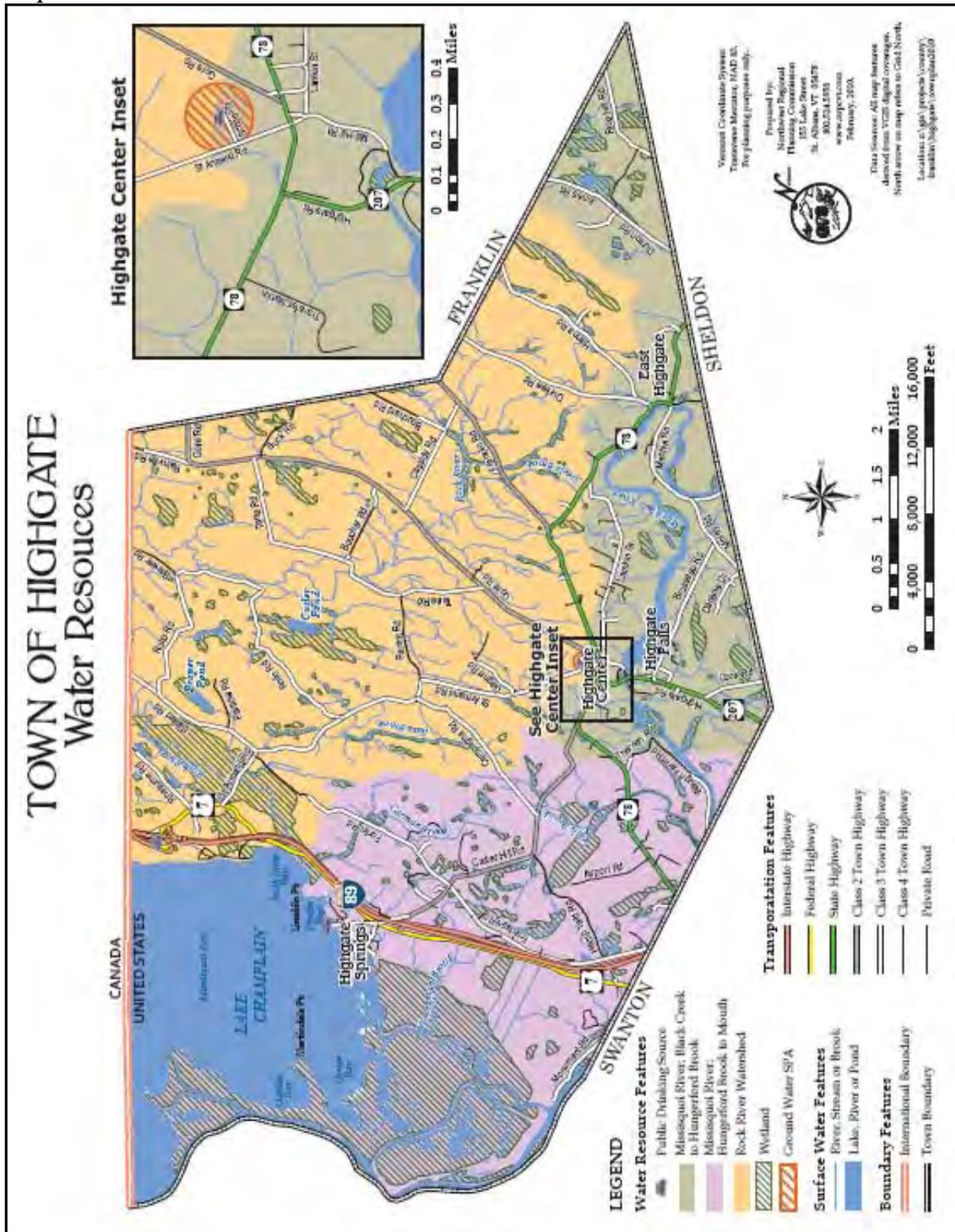
In contrast, course grained, well drained sandy soils, though somewhat droughty for agriculture, are best suited for residential, commercial, industrial, and other related types of uses. Moderately well drained, loamy soils are best for on site septic and often these associations, such as Peru or Cabot have lower slope percentages as well. In total, there are 5,220 acres of soils (14 percent of total land area) well suited for on-site sewage disposal, largely located in the southern portion of the Town.

Some of the best soils for urban development are those characterized as agricultural. There are 6,849 acres (18 percent of total land area) of State designated prime agricultural soils in Highgate.

WATER RESOURCES

Highgate's topography is defined by two watersheds; the Rock River Watershed and the Missisquoi Watershed (See the Water Resources Map). Its dominant surface water resources are the Missisquoi River and Missisquoi Bay. The Missisquoi River serves as an important resource for hydroelectric energy to the region's development. However, such projects have greatly reduced the recreational benefits over the years. The Missisquoi River drains into Missisquoi Bay, a valuable recreational and water resource for the Town and region. While the Bay provides opportunities for swimming, boating, and fishing, problems of pollution continue. Phosphorus loading has been identified as the primary threat to Missisquoi Bay. High phosphorus levels promote the growth of algae and aquatic plants, and reduce the health, aesthetic and recreational values of the Bay. Elevated levels of mercury in walleye are also of concern and a lake-wide health and consumption advisory is in effect.

Map 4.2 Water Resources



On August 26, 2002, an agreement was signed between Vermont and Quebec regarding phosphorus reduction in the Missisquoi Bay Watershed. The agreement states that Vermont holds 60 percent of the responsibility for reducing phosphorus loads in the Bay, while Quebec holds 40 percent. The target phosphorus load for Vermont is 58.3 metric tons per year (mt/yr) and the target load for Quebec is 38.9 mt/yr. These designations were based on a report by the Quebec-Vermont Missisquoi Bay Phosphorus Reduction Task Force. The Lake Champlain Phosphorus Total Maximum Daily Load (TMDL) establishes maximum allowable phosphorus loads from each sub-watershed of Lake Champlain and the TMDL implementation plan outlines the actions that will be necessary to achieve these phosphorus targets. The Vermont Agency of Natural Resources presented a revised TMDL implementation plan to the State Legislature in 2010. Recommended actions identified in the plan included best management practices on farms to reduce nutrient runoff, stabilization of stream banks and stream channels, and better storm water management and erosion control on developable land and roadways.

While phosphorus has been identified as a high priority threat to water quality in the Missisquoi Bay, there are also concerns regarding the health of fish and wildlife, the invasion of nuisance aquatic plants, rising mercury levels and other watershed-related issues. The Lake Champlain Basin Program produces a Lake Champlain Management Plan “Opportunities for Action” which identifies actions that should be taken to address the many threats to the health of Lake Champlain.

To further the effort of improving water quality in Missisquoi Bay and Missisquoi River, the Town of Highgate has been working with the Missisquoi River Basin Association (MRBA), a non-profit organization in operation since 1996. MRBA is a volunteer organization that carries out streambank stabilization projects and educational forums about water quality. In 2007, the Town of Highgate, MRBA, the Northwest Regional Planning Commission and the VT River Management Program partnered to complete a geomorphic assessment study of the Rock River. This study identified documented the condition of the river and identified opportunities to reduce channel erosion, plant stream buffers, replace culverts, and restore adjacent wetlands and floodplains in order to improve water quality and stream stability.

Subsurface water resources serve as potable supply for residents of the community. Such areas are extensive in Highgate, and include bedrock and gravel aquifer recharge. Areas of greatest sensitivity are northern and far-western portions of the Town, while areas of lesser sensitivity and far greater development potential lie in southern portions of the Town.

The information base defining areas of development limitations is not site-specific. Careful percolation tests and soil borings may well establish sites with few limitations for sub-soil sewage disposal. On the other hand, development must be approached cautiously for areas of noted sensitivity.



East Highgate Bridge over the Missisquoi River, circa 1928
Used with permission from the Highgate Historical Society

FOREST RESOURCES

Highgate has 9,560 acres of forest (18% percent of the total), including 2,666 acres of deciduous forest, 1,527 acres of coniferous forest, 2,707 acres of mixed forest and 2,660 acres of forested wetland. Highgate's forests provide quality forest products while supporting tourism, recreation, wildlife habitat, and the scenic, rural nature of the Town. Protecting the Town's forest resources is very important to the people of Highgate. In effort to do so, the Town has created two areas of forest reserve making up 3,879 acres. The forest reserve is valuable forested land that lacks access to public roads, is important for wildlife and wildlife habitat, has potential for commercial forestry, or has one or more physical limitations to development.

FRAGILE, NATURAL, AND ECOLOGICALLY SENSITIVE AREAS

Fragile Areas

According to Title 10 VSA, Chapter 158, Section 6551, a fragile area is "an area of land or water which has unusual or significant flora, fauna, geological or similar features of scientific, ecological, or educational interest". Under Chapter 158, the Department of Fish and Wildlife is mandated to create a Fragile Areas Registry, which is designed to identify and educate rather than regulate. The Missisquoi River Delta (within the Missisquoi National Wildlife Refuge) is listed. The river delta, shared by the towns of Highgate and Swanton, consists of approximately 1,500 acres of freshwater marsh and swamp. Aside from its rich ecological wildlife value, the area has hydrological potential as a major source of potable ground water. The Missisquoi National Wildlife Refuge consists of 6,642 acres of quiet waters and wetlands that attract large flocks of migratory birds. Upland areas consist of a mix of open fields and hardwood forest of American elm, white ash, white oak, and silver and red maple. Both of these areas provide habitat for migratory songbirds, resident mammals, and other wildlife. One of the most notable birds that pass through the Refuge is the Great Blue Heron, which has established rookeries in the Refuge.

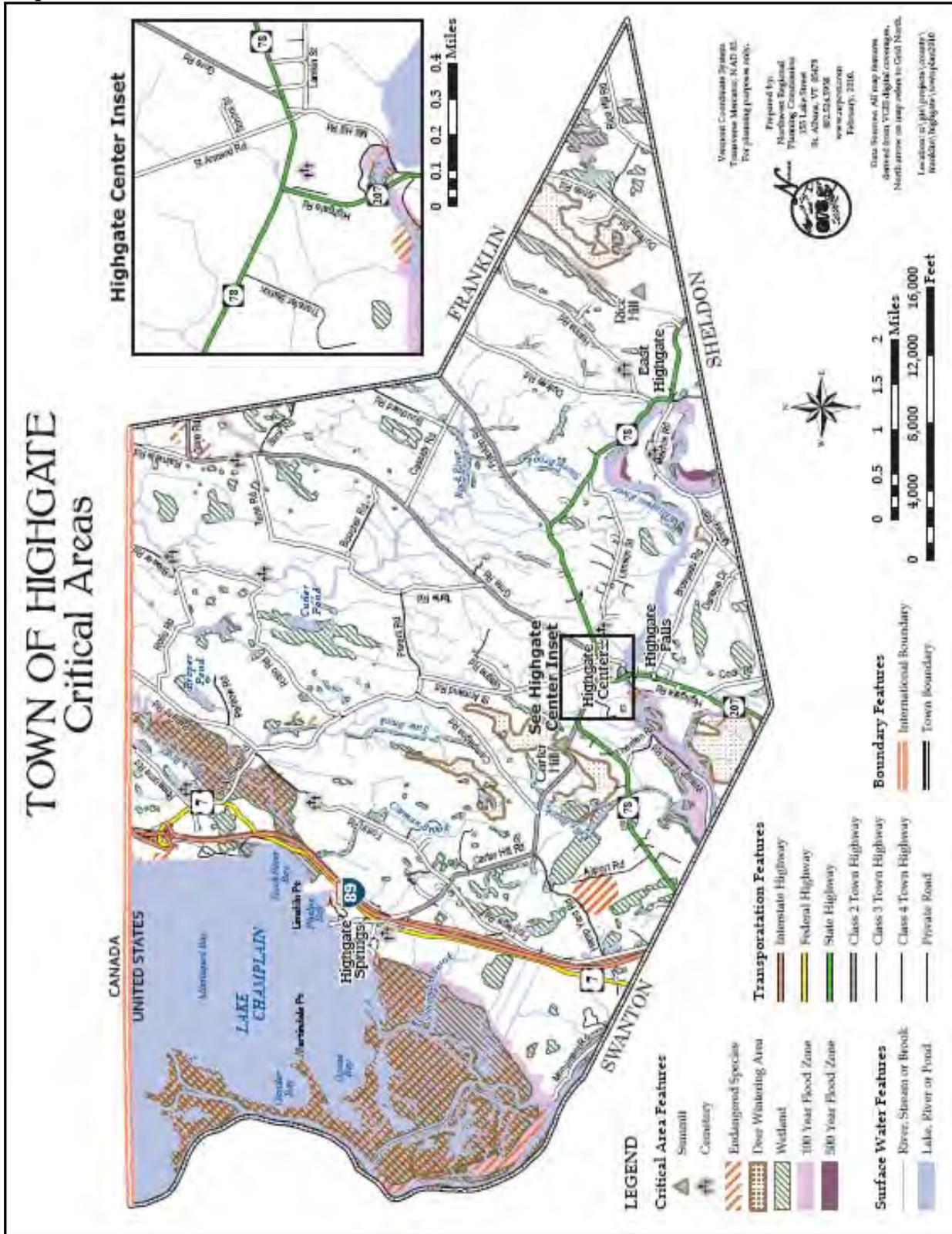
Natural Areas

The Non-game and Natural Heritage Program of the Vermont Department of Fish and Wildlife has designated several ecologically significant natural areas that are either among the best-known

representatives of a natural community type in the State or support rare species. These areas include Highgate State Park, the Rock River Flood Plain, Mason Hill, Phelps Bay Shore, Missisquoi Bay Delta Complex, the Missisquoi River Islands, Hungerford Brook Falls, Highgate Falls Island, Kelly Brook, and Youngman Brook. The Critical Areas Map identifies the location of all the endangered species, many whom call one of these ecologically natural areas their home.

Highgate Cliffs Natural Area (encompassed by Highgate State Park) consists of 37 acres of headland above Missisquoi Bay. The area is home to several significant natural communities, including several uncommon and rare plant communities. A warm calcareous cliff community varies in elevation from 95 to 200 feet and consists mainly of white dolomite. The cliff face is sparsely vegetated except for the summit, which is densely populated with northern white cedar. Purple clematis and wall rue, two uncommon plants, are found on the cliff face. Turkey vultures were first documented nesting in Vermont at this site and have continued nesting there since 1975. Peregrine falcons are also known to nest there. A trail follows the crest of the bluff for recreational use.

Map 4.3 Critical Areas



A calcareous talus (rock fall) lies at the base of the cliff. It is very small but it is in unspoiled condition. Several lime-loving plant species such as bulbet fern and herb robert grow extremely well in the soil among the rocks as does one uncommon species, the Alleghany-vine. The lakeside cobble shore is considered uncommon in Vermont. Three rare plant species, the early ladies-tresses, the bugleweed, and the marsh bellflower, grow in association with a variety of grasses, sedge, and other herbaceous species. Along the bluff of the cliffs, there is a hardwood forest. Small trees and exotic herbaceous species attest to past logging and clearings. Two rare sedges, the *Carex hitchcockiana* and the *Carex albursina*, can be found growing in these woods.

The Rock River Flood Plain, which has been designated a State Wildlife Management Area, includes a 288 acre floodplain forest, marshy shrub swamp, cattail marsh, and seep rush marsh. It is home to several rare species including the cursed crawfoot (*Ranunculus sceleratus*), yellow water crowfoot (*Ranunculus flabellaris*), Gray's sedge (*Carex grayi*), and the northern three-lobed bedstraw (*Galium trifidum*). It is also home to the uncommon map turtle (*Graptemys geographica*).

Mason Hill, a classic thrust fault 50 foot tall, is southeast of the Rock River Flood Plain and is an excellent example of a warm calcareous cliff community. The cliff is home to a wide variety of uncommon plant species including the smooth cliff-brake (*Pellaea glabella*), fragile rock brake (*Cryptogramma stelleri*), walking fern (*Asplenium rhizophyllum*), purple clematis (*Clematis occidentalis*), and the large yellow lady's slipper (*Cypripedium calceolus*, variation *pubescens*).

Phelps Bay Shore, Missisquoi River Islands, Hungerford Brook Falls, and Highgate Falls Island all contain rare, uncommon, or State threatened species. Kelly and Youngman Brook are home to the State threatened Brook Lamprey.

Wetlands

There are 2,718 acres of non-forested wetland and 2,660 acres of forested wetland in Highgate, totaling 5,378 acres of wetlands. Wetland areas are of particular sensitivity to disruption and surface water runoff from urban areas. State water quality experts have notified Highgate Town officials of locations and regulations regarding wetlands. The far western third of the Town, which is bordered by the Missisquoi River and Bay, serves as a large wetland and aquifer recharge area. Shore lands of the northwest sector along Missisquoi Bay are also sensitive to development pressures. In particular, there is one federally protected wetland area, the Missisquoi National Wildlife Refuge, and one State protected wetland area, the Rock River Wildlife Management Area. The Town has also acted to make other vulnerable wetland areas part of their Protected Area and Forest Reserve Districts.

Floodplains

Floodplains include areas along streams and rivers that experience frequent flooding and for obvious reasons are poorly suited for most types of development. Agriculture, forestry, and outdoor recreation are most suited to these areas. The Town of Highgate has adopted floodplain regulations as part of its zoning bylaws, which conform to federal requirements for participation in the National Flood Insurance Program (NFIP). The area is delineated as the 100-year floodplain on the Flood Insurance Rate Map for the Town of Highgate (available at the Town Office) by the Federal Emergency Management Agency (FEMA). Conditional use review is required for all development in this zone to ensure that the design and construction of development in flood hazard areas is accomplished in a manner that minimizes or eliminates potential for flood damage.

Shoreline and Riparian Areas

The shoreline of Lake Champlain is designated as the Shoreline District on the Proposed Land Use Map. The District is established to control and prevent water pollution, to protect spawning grounds, fish and aquatic life, and to control building sites along the waters in the best interest of the citizens of Highgate. Riparian areas include the banks of the Missisquoi and Rock Rivers. These areas are particularly sensitive to development due to the potential for flooding, runoff, erosion, and impacts related to water quality. Special management of these areas is recommended, including setbacks and vegetated buffers of sufficient width. Water quality protection measures should not be limited to Lake Champlain and the Missisquoi and Rock Rivers, but should extend to all of Highgate's surface waters, including Cutler Pond, Proper Pond, and other streams.

Deeryards

Six deeryards have been identified in Highgate and can be seen on the Critical Areas Map. The largest area (343 acres) is located in the southern part of Town in the Medium Density Residential District near the Swanton border. Another large area (314 acres) is located in the Agricultural District north of Route 78 and bisected by Carter Hill. An area of 294 acres is located in the Missisquoi National Wildlife Refuge, and an area of 266 acres is located in the Protected Area District surrounding Spooner Road. An area of 104 acres is located in the Agricultural District just north of Campagna Road, and an area of 40 acres is located in Medium Density Residential District around the intersection of Morey Road and Brosseau Road. These areas provide winter shelter and browse for deer, and are critical to the long-term survival of the local deer population.

Steep Slope

Areas characterized by slopes of greater than 20 percent are noted since septic seepage and aesthetic considerations play a part in land use development decisions. Steep slopes characteristically have shallow soils and frangipan areas, which are hard brittle layers below the soil surface, which present considerable constraints to many types of development.

Development on steep slopes can be expensive for the municipality as the costs of road maintenance, including runoff maintenance and sedimentation problems, are much higher on steep slope areas. School bus and fire service may also be difficult, expensive, and even impossible depending on weather conditions. Considerable environmental problems may arise from development of steep slopes presenting hazards to those residing within the areas as well as those outside. Development on steep slopes may upset the natural slope repose angle, which with the removal of vegetation and the injection of effluent by onsite sewage removal, will increase runoff, erosion, and the possibility of mass movement or slumping. Slippage of foundations can also be common in steep sloping areas.

Septic tank disposal fields located on slopes greater than 20 percent may result in partially treated effluent surfacing and seeping into the down slope surface causing health hazards and possible nutrient enrichment of surface water, not to mention aesthetic problems. Much of the effluent that does remain under the shallow soil of steep slopes may flow laterally and result in groundwater contamination or the surfacing of effluent at outcrop or frangipan areas. Development should therefore be limited to slopes of less than 20 percent, especially when it requires on-site sewage disposal.

CONSERVATION PROVISIONS

In effort to preserve some of Highgate's most cherished resources, the Town passed a Forest Reserve District of 3,879 acres and a Protected Area District of 1,564 acres, which each have limited development provisions. In 2004, the Planning Commission offered new amendments to the Town's zoning bylaws that would further protect these districts. These amendments did not pass and the Planning Commission is currently looking for other ways to more explicitly protect the Protected Area and Forest Reserve districts. The land in the Protected District contains vulnerable wetland, wildlife habitat, soils, and/or slope unsuitable for development. The Forest Reserve District, as identified earlier under forest resources, contains valuable forested land that lacks access to public roads, is important for wildlife and wildlife habitat, has potential for commercial forestry, or has one or more physical limitations to development. See Chapter 8 (Land Use) for full descriptions of each district and elaboration on conservation strategies. Each land use district can be identified on the Proposed Land Use Map.

EARTH RESOURCE OPPORTUNITIES

Highgate was endowed with extensive sand and gravel deposits, particularly, along the Missisquoi River basin. Several have been and/or are still being exploited commercially for concrete production and ultimately construction activities in and out of the region. While these mineral resources are of value to the Town, care must be taken of harmful side effects to other resources; extensive aquifer recharge areas are possible in subsurface portions of mining locations. In order to avoid siltation and resultant harm to potable water supplies, preventive engineering measures should be employed. This resource is becoming scarcer due to development in the area over the past several years. These deposits will eventually no longer generate industrial revenue or provide employment in Highgate, other opportunities should be considered. In addition, once the mineral is depleted, appropriate reclamation activities can once again make the area suitable for urban and recreations activities.

NATURAL RESOURCE GOALS

1. Protect ecological and resource sensitive areas such as wetlands, fragile soils, steep slopes, wildlife habitat, and State designated natural and fragile areas from inappropriate development.
2. Maintain the character of the Town through the preservation of the environmental resources that make Highgate unique: including the Town's forests, wildlife habitat, biological diversity, shore land and water resources, and agricultural land.

NATURAL RESOURCE OBJECTIVES

1. Prohibit development in areas that threaten potable water supplies, such as wellhead protection areas.
 2. Regulate shore lands to ensure land use development and other activities do not degrade water quality in the Bay.
 3. Guide new development away from productive agricultural and forest soils and consider slope and soil characteristics when reviewing individual development proposals.
 4. Identify important wildlife and plant habitats in Highgate and work with other groups to maintain their continued protection.
 5. Complete a natural resource inventory and a study of preservation strategies for the Town's Protected Area and Forest Reserve District.
-

6. Improve access and trail maintenance in the Highgate Cliffs Natural Area.

ARCHEOLOGICAL AND CULTURAL RESOURCES

ARCHEOLOGICAL RESOURCES

The Town of Highgate has significant land with sensitive and unique resource value. Archaeological sites have been noted, regulated, and excavated. The State sponsored "Vermont Rivers Study" published in 1986 identified several areas of known archaeological sensitivity in Highgate. The Town of

Highgate recognizes the archeological sensitivity of these areas, including the Monument Road area in Highgate and Swanton for its significance to Native Americans. In 2002, Highgate and Swanton adopted interim zoning bylaws that recognize these archeologically sensitive areas in the towns. The interim bylaws were created through a collaborative process involving the two towns with representatives from the Abenakis and homeowners. The interim bylaws have expired and should be included permanently. Highgate continues to work through the related issues and expects to continue to coordinate with and receive assistance from the State of Vermont in addressing these resources.

CULTURAL RESOURCES

The Northwest Region of Vermont contains hundreds of historic sites, settlements, and structures. Each year, the towns in which these sites are located conduct surveys for the Division of Preservation. Once the sites are identified, they are then entered into the State Register of Historic Places. The Town of Highgate is home for the Douglas and Jarvis Iron Bridge, the St. John Episcopal Church, and the Highgate Springs Border Station. Their years of inclusion on the Register were 1974, 1976, and 1986 respectively. The Abenaki Monument located on Monument Road is also an important cultural resource in Highgate. The Monument consists of a carved wood pole and an inscription describing the carvings. The site of the Monument is a former Abenaki burial ground.

The Highgate Historical Society was formed by a few interested people in 1986 for the purpose of preserving Highgate's history. It is a non-profit corporation with all volunteer employees. The object of the society is:

1. To discover, collect, preserve, and exhibit under proper regulations, any items that relate to the history of the Town;
2. To foster and promote interest in Highgate's history; and

The Inscription at the Abenaki Monument

Given to the People of Swanton by the Abenaki Nation

Magawogan waji tagwahoganiak oji wobaraki i ngwed kamigzoak sataigizos

The turtle, otter, wolf, beaver, bear, and eagle ascend the pole. The turtle has thirteen squares on its back, representing the thirteen original old villages and appears at the base of the pole. It also often represents the Western Abenaki. The otter is the name of otter creek where many Abenaki lived before the great changes. The wolf was commonly used as a symbol of the Loup or Mahican Nation, of which there are some families at Missisquoi. The beaver is an animal symbol of the ancient Lake Champlain/Missisquoi Community. The bear is the old sokoki/pennicook symbol. The eagle stands at the top as the universal symbol of great sacredness.

Funded in part by a grant from the Vermont Council of the Arts.

3. To create a constructive effort to research Highgate's history.

In 1996, the Society was able to purchase the former Odd Fellows Hall in Highgate Center. Many repairs were made to the building and in the fall of 1997, an open house was held. The building houses a museum, a library, and a meeting room. Regular museum hours are held during the summer months. The building is closed during the winter months.

Future plans for the Highgate Historical Society Museum include keeping the Museum in operation through seeking out volunteers and creating a temperature and humidity controlled reading/research room in the basement. In 2004, a fundraiser was organized raising \$900 towards the renovations. The Town also contributed money. The Highgate Historical Society is represented each year at the Vermont History Exposition Weekend in Tunbridge. In 2004, the Highgate exhibit was on Highgate Schools, including information on the first School in Highgate, built in 1907.

ARCHEOLOGICAL AND CULTURAL RESOURCE GOALS

1. Protect ecological and resource sensitive areas from inappropriate development.
2. Maintain the character of the Town through the preservation of the cultural resources that make Highgate unique.
3. Preserve monuments and historic structures.
4. Promote cultural interests, tourism, historic walking tours, and self-guided tours.
5. Protect cemeteries and other significant archaeological resources.

ARCHAEOLOGICAL AND CULTURAL RESOURCE OBJECTIVES

1. Encourage the protection of sensitive archaeological sites.
2. Find ways to educate people about the importance of protecting historic sites.
3. List all the historic sites and structures in the Town.
4. Assist preservation activities aimed at preserving and promoting the history of the Town.
5. Promote the preservation of historical resources through the adaptive reuse of structures to maintain their importance in community life.
6. Begin the project of mapping the Town's cemeteries.
7. Provide brochures to residents and visitors to the Town.
8. Continue with the concerts and family activities in the Village Park.
9. Include archaeologically sensitive sites in Zoning Bylaws.

HAZARD MITIGATION PLAN

Severe natural hazard events such as flood, ice storms, landslide erosion, and drought have always been a part of life in Vermont. In recent years, severe storms and icejams in addition to rain events coinciding with spring thaws have caused major flooding. This has caused roads to be closed particularly along Route 78. Landslide erosion is also an increasing threat due to high sandbank hills with unstable clayey soils underneath. In 1999, a natural hazard mitigation plan was established for the Town of Highgate in cooperation with the Town of Swanton. It is known as the Highgate/Swanton All-Hazard Mitigation Plan. The primary goal of this plan is to prevent or reduce the impact of natural events on the two towns. A complete copy of the mitigation plan can be found at the Town Office. The plan was adopted and approved by FEMA in 1999 however

needs to be revised as more recently regulations have changed. A regional All-Hazard Mitigation Plan has been drafted which is expected to be completed by the end of 2010. Towns in the region will each individually adopt an annex of the Regional Plan which will then be submitted to FEMA for approval to replace the 1999 plan.

HAZARD MITIGATION GOALS

1. Prevent the loss of life and injury resulting from flooding and other natural hazards.
2. Mitigate financial losses incurred by municipal, residential, industrial, agricultural, and commercial establishments due to flooding, landslides, and other natural hazards.
3. Reduce the damage to public infrastructure resulting from flooding and other natural hazards.
4. Reduce the potential for ice jams to occur.
5. Increase cooperation among neighboring municipalities to mitigate flood damage and damage from other natural hazards.
6. Ensure that mitigation measures are sympathetic to the natural features of the Town's rivers, streams, and other surface waters.

CHAPTER 5

Energy

Highgate is located along the shores of the sixth largest fresh water lake in the United States, Lake Champlain, and varies in topography from lake level in the west to rolling hills in the east. Because of the arctic blasts during the winter months and the Town's relative flat terrain, energy conservation is an important step in developing a comprehensive energy plan for the future of Highgate.

ELECTRICITY

Electrical power resources are provided through the Village of Swanton and Vermont Electric Cooperative, which serve the home and business needs of Highgate. Power originates from Hydro Quebec, which sends power over major transmission wires (345 KV) to a converter station west of Highgate Center and north of the Missisquoi River. This "converter" acts to synchronize power support infrastructure with that of the Central Vermont Public Service Corporation; from there the generation of 115,000 volts serves the needs of one-fourth of Vermont. Swanton Village provides electric service using power from the Orman E. Croft Generating Plant located in Highgate Falls and from other sources purchased from VELCO. VELCO sells Swanton Village power converted at a 44,000-volt substation just north of the converter.

The converter lies adjacent to the site of a proposed industrial area in Highgate between VT 78 and VT 207 and the capacity of this utility may prove valuable in powering industrial and consumer needs for Highgate's future.



Highgate Falls Dam, circa 1900
Used with permission from the Highgate Historical Society

NATURAL GAS

Vermont Gas has installed natural gas distribution lines from the Vermont Brick Plant east along VT Route 78 to Highgate Center and then north on Gore Road to the elementary school. Construction of these lines were completed before the winter of 2005. The Town benefits from the natural gas lines extended to the center of Town serving municipal, residential, and business needs.

RENEWABLE SOURCES

Highgate already produces and uses renewable energy from the hydroelectric plant. Another renewable source of energy utilized in Missisquoi Valley Union High School (MVU) is wood chips. These can often be purchased at a relatively local scale and cut significant costs in heating expenditures. There are several additional sources of renewable energy that the Town, its residents and businesses should consider. Solar and wind energy can be generated with an initial investment in the infrastructure. This investment is often paid off in several years by cost savings as well as revenue created by selling net energy to utilities. The feasibility of these sources should be assessed both for cost-effectiveness and for site potential. With an agriculturally-based economy, the region can consider energy generation from methane digesters. This is already being accomplished in the area by Cow Power a program of Central Vermont Public Service.

Renewable energy generation from farm, the Town, residents, or businesses can produce power for local, immediate use at the site or it can be sold back to a utility for distribution on the Vermont power grid. Recent legislation (H.446, Act 45) has improved the profitability of smaller retail systems from the old net metering structure to what is called “standard offer”. This creates a greater incentive to invest locally, in small scale renewable energy generation.

ENERGY CONSUMPTION AND CONSERVATION

According to the 2000 census, fuel oil and kerosene are the most popular home heating fuels (805 units). Tank/LP gas is second with 253 units; wood is third with 99 units, followed by utility gas with 29 units. The remainder of the households heat with other sources besides those above, including coal and electricity.

At the local level, energy conservation concerns generally fall into four categories including, energy efficiency of Town owned or Town maintained buildings, promotion of energy conservation techniques for residences and businesses, efficient development patterns, and energy used for transportation.

Highgate is in the position to take the lead in promoting energy conservation. The lighting in the municipal buildings, schools and ice arena has all been updated to be more energy efficient. The Town has received federal and state funding to further implement energy efficiency measures. Energy efficiency saves the municipality money in heating and lighting while helping to reduce environmental impacts. The Town is also able to work with local utility companies to promote energy conservation programs aimed at residences and businesses, to reduce energy demand, save money, and preserve natural resources.

Highgate can also promote energy conservation through more efficient development patterns. Subdivisions and developments in the Town that come under Act 250 review are required "to reflect the principles of energy conservation and incorporate the best available technology for efficient use

or recovery of energy.” Conditional use review under the zoning regulations does enable the Zoning Board to require conditions regarding the utilization of renewable energy resources.

Energy efficient development means more than just well constructed buildings that utilize the best technology for efficiency and renewable energy generation. The location of new buildings can make a development more energy efficient. For example, development that is clustered together provides for greater energy efficiency. Fewer miles of road are needed to connect the homes or commercial buildings, school buses and snowplows travel smaller distances, and electric utility lines need not extend as far. In addition, other public services such as fire and ambulance, as well as sewage and water, should they become a municipal service, are all made more efficient by "well planned" new development. Additionally, by encouraging development near village centers can increase the likelihood of residents willing to bike or walk to amenities, services and schools.

TABLE 5.1: COMMUTER FLOW IN HIGHGATE

Place of Commute	Number	Percent
Chittenden County	463	28.4
St. Albans City	365	22.4
Highgate	264	16.2
Swanton	247	15.1
St. Albans Town	162	9.9
Other parts Franklin County	85	5.2
Other parts of State	22	1.3
Outside State	20	1.2
Grand Isle County	4	0.2
Data Source: U.S. Census, 2000		

In 2007 a study was conducted to address transportation and land use along the Lamkin Street Corridor in Highgate Center. With proximity to the school, recreational facilities, Town Library and other amenities it would be advantageous for the town to encourage high density residential development in this area of Town. The land along Lamkin Street is zoned for medium and high density residential development. The study promotes cluster development and multi-modal transportation opportunities by incorporating sidewalks into the streetscapes. The study advocates for reducing lot sizes in the Corridor and regulating access and creating private developer requirements that conform to this type of development.

Carefully considered placement of a building on a lot adds to the efficiency of any new development by increasing passive solar gain and decreasing wind pressures. Efficiency Vermont is the State’s energy efficiency utility, which provides technical assistance and financial incentives to residences and businesses to identify and pay for energy efficient designs. Furthermore, they are an excellent resource for general information on energy efficiency.

TRANSPORTATION AND ENERGY CONSERVATION

While the clustering of development helps decrease transportation costs, it is not the only answer. Most residents travel to Swanton, St Albans, and Chittenden County for employment, entertainment, medical needs, or services. Table 5.1 shows that almost 30 percent of workers in Highgate are commuting to Chittenden County alone. Car-pooling is beneficial for these residents not only because it conserves fuel, but also because it reduces wear and tear and maintenance costs on individual vehicles.

One important component of any car-pooling program is the provision of a location where car-poolers can leave their vehicles. Currently, there is no formal designated park and ride lot in Northern Franklin County. The closest lot designated by the State of Vermont is in St. Albans on VT-104 and it is inconvenient for Highgate commuters and often very full. This makes it necessary

to either develop new, formal park and ride lots. Currently the “Frog Pond” lot serves as an informal park and ride for commuters.

In 2004, the Town unsuccessfully applied to be a part of the Vermont Agency of Transportation’s Municipal Park and Ride Demonstration Project to receive grant funds to create a formal park and ride lot in Highgate. Despite this setback, the Town will continue to work with the Northwest regional Planning Commission and VTrans to plan and secure funding for the development of a formal park and ride lot in Highgate. The proposed site for the park and ride lot is at the intersection of VT 207 and VT 78. In the mean time, informal park and ride lots could be implemented at locations such as churches, where the mostly weekday park and ride needs do not conflict with the parking needs of the particular location. Though there are some informal locations along VT 105, their continued use is dependent upon the property owners and is therefore unreliable for planning purposes.

ENERGY GOALS

1. Encourage energy efficiency by making information available on how to become more energy efficient.
2. Promote car-pooling among area residents and encourage the use of informal park and ride lots where possible.
3. Continue improvements in Town buildings to increase energy efficiency.
4. To help conserve public resources, encourage Planned Unit Development wherever possible, and encourage energy efficient site design.
5. Encourage the development of renewable energy resources.

ENERGY OBJECTIVES

1. Ask local suppliers how they can contribute to local energy efficiency and conservation programs.
2. Work with adjacent towns and the Regional Planning Commission to encourage the Vermont Agency of Transportation to investigate the creation of formal park and ride lots.
3. Revise the zoning bylaws and subdivision regulations to encourage conservation through clustering, specifically including Planned Unit Developments.
4. Investigate what, if any, new standards related to energy efficiency should be incorporated into site plan review, and revise the zoning bylaws to reflect these new standards of review.
5. Review Town energy costs on a regular basis to identify any areas for potential cost savings.
6. Participate in Public Service Board proceedings where appropriate to help ensure utility costs remain affordable for residents and businesses.
7. Incorporate desired recommendations from Lamkin Street Corridor Study into bylaws.
8. Encourage Vermont Gas to extend lines further to downtown.

CHAPTER 6

Transportation

HIGHWAYS AND LOCAL ROADS

Highgate is fortunate to have diverse transportation facilities with links to the Region, State, and Canada. The primary transportation mode is the roadway network, with Interstate 89 as the central thoroughfare. Within the Town of Highgate, one I-89 Interchange (Exit 22) is available as the last on the highway before entering Quebec, Canada. The next southernmost interchange (exit 21) lies within the Town of Swanton, 3.5 miles south, and is easily accessible from Highgate.

U.S. Route 7 is a major State maintained arterial, which parallels I-89 to the west of the latter and terminates near the northernmost interchange of I-89. This facility is considered for funding purposes to be a federal-aid-primary roadway, and is eligible for partial federal pass-through funding via the Vermont Agency of Transportation (VTrans). The 2008 traffic counts found that the segments of US 7 that pass through Highgate experienced average annual daily traffic (AADT) 960 vehicles North of Monument Road and 550 vehicles South of Rheaume Road. VT 78 experiences higher traffic loads with a 2007 AADT count of 1,900 just West of Franklin Road, AADT of 4,400 East of Carter Hill Road and 3,700 West of Carter Hill Road. I-89 had AADT in 2007 of 3,300 from 22 in Highgate and to the Canadian Border. In 2007 the AADT for the northbound off-ramp was 180 vehicles, and 140 for the northbound on-ramp. The AADT for the southbound off-ramp was 90 vehicles and 130 for the southbound on-ramp. All daily traffic counts on all roads have increased over the years.

VT 78 serves east-west travel in Highgate. The facility is classified under federal-aid-secondary and is eligible for federal funds. The capacity of the roadway to handle peak traffic is impacted by the Missisquoi Valley Union High School, truck traffic off the Swanton I-89 interchange (exit 22), the various sand/gravel pit operations, the Highgate Transfer Station, and increased commercial/industrial activity associated with areas neighboring the State Airport.

In January of 2010 Bridge #25 over the Missisquoi River in East Highgate was inspected and evaluated by two highway engineers from VT AOT along with Selectboard members. The steel bridge which was originally built in 1929 is in need of repairs. The Town will develop a strategic plan to pay for the replacement of necessary parts of the bridge. Grants, loans and additional funding will be sought to help pay for the costs. Until the repairs are completed, the bridge will be open to only one-lane of traffic with a weight restriction.

The area of VT 78 just west of East Highgate Village has suffered from annual flooding for several years. Ice usually jams in the Missisquoi River behind the Orman E. Croft Generating facility and causes water and ice to overflow onto the road. Two homes in the floodplain have been damaged and since abandoned and acquired by FEMA. No other structures are at risk from the flooding. Since the highway is owned and operated by the state, the Town is not responsible for mitigation.

Traffic volumes and sufficiency ratings are the basic information collected by the Vermont Agency of Transportation for examining the condition of roadways and prioritizing maintenance and

rehabilitation projects. Sufficiency ratings measure various conditions such as structural condition, safety, and service. Sufficiency ratings are divided into four categories: bad (0 – 40), poor (40 – 60) fair (60 – 80), and good (80 – 100). According to information provided by VTTrans, 1.05 miles of Highgate State Highways were classified as bad, 1.88 miles were classified as poor, 12.62 miles were classified as fair, and 0.40 miles were classified as good. Table 7.1 identifies the traffic volume and sufficiency ratings for VT 78 and other State highways in Highgate.

TABLE 6.1: HIGHGATE AVERAGE DAILY TRAFFIC AND SUFFICIENCY RATINGS								
State Highways (2001)								
Route #	Local Name	Begin Mile	End Mile	Length	AADT	Surface Width (ft)	Roadbed Width (ft)	Adjust Rating
MC 296	VT 78	7.7*	2.9	3.3	4,000	21.9	24.5	61.5
MC 296	VT 78	2.9	3.4	0.5	4,400	20.0	24.0	59.4
MC 296	VT 78	3.4	6.4	3.0	2,100	21.2	25.2	60.3
MC 296	VT 78	6.4	6.9	0.5	1,700	22.0	26.0	61.1
MC 296	VT 78	6.9	7.7	0.8	1,600	22.0	27.1	58.4
MC 297	VT207	0.2*	0.3	4.9	2,200	20.0	24.0	36.3
MC 297	VT207	0.3	0.4	0.1	2,400	26.0	28.0	51.1
MC 297	VT207	0.4	1.2	0.8	2,400	21.0	25.0	31.3
MC 297	VT207	1.2	1.6	0.4	2,400	21.0	25.0	41.0
MC 297	VT207	1.6	2.0	0.4	2,400	22.0	34.0	64.6
-	US 7	6.8*	2.9	3.1	930	22.0	28.0	62.4
-	US 7	2.9	3.1	0.2	750	22.0	28.0	63.3
-	US 7	3.1	4.9	1.8	600	22.0	28.5	73.7
-	US 7	4.9	5.8	1.0	600	22.0	28.0	70.4
-	US 7	5.8	6.2	0.4	400	24.0	32.0	83.1

Source: VT State Highways Sufficiency Ratings 2001 (May 2003)
 * - Crosses Town Line

It is recommended that the Town work with VTTrans to provide wide and paved shoulders along Route 78 west of Highgate Center. Shoulder construction in all areas will facilitate movement by providing passing capability when turn movements/resultant conflicts occur.

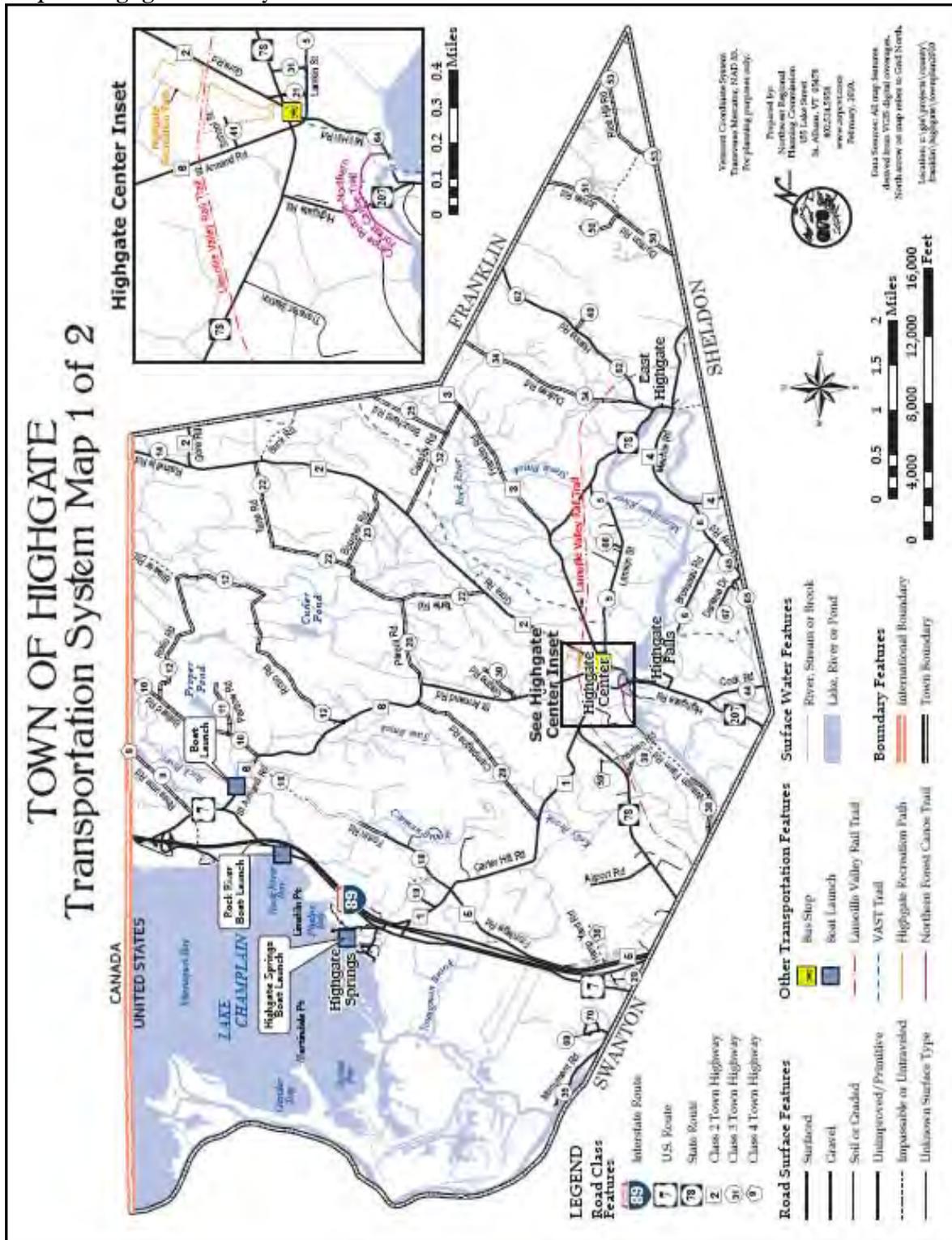
VTTrans worked with the towns of Highgate and Franklin on the reconstruction of the Highgate-Franklin Road RS 0301 (1) TH 3. The 5.77-mile project has been on the books for approximately 20+ years. The State and the towns have agreed on a plan and work is progressing. Construction began in Franklin Village in May 2004 and has since been completed.

According to Vermont Statute, the Town shall keep Class 1, 2, and 3 highways in good and sufficient repair at all seasons of the year. Class 4 highways; however, may be maintained to the extent required by the necessity of the Town, the public good, and the convenience of the inhabitants of the Town (19 VSA 931). A Road Acceptance Policy was adopted by the Board of Selectmen in December 1992 and Class IV Road Policy in November 1991. Both policies were updated in April 2002.

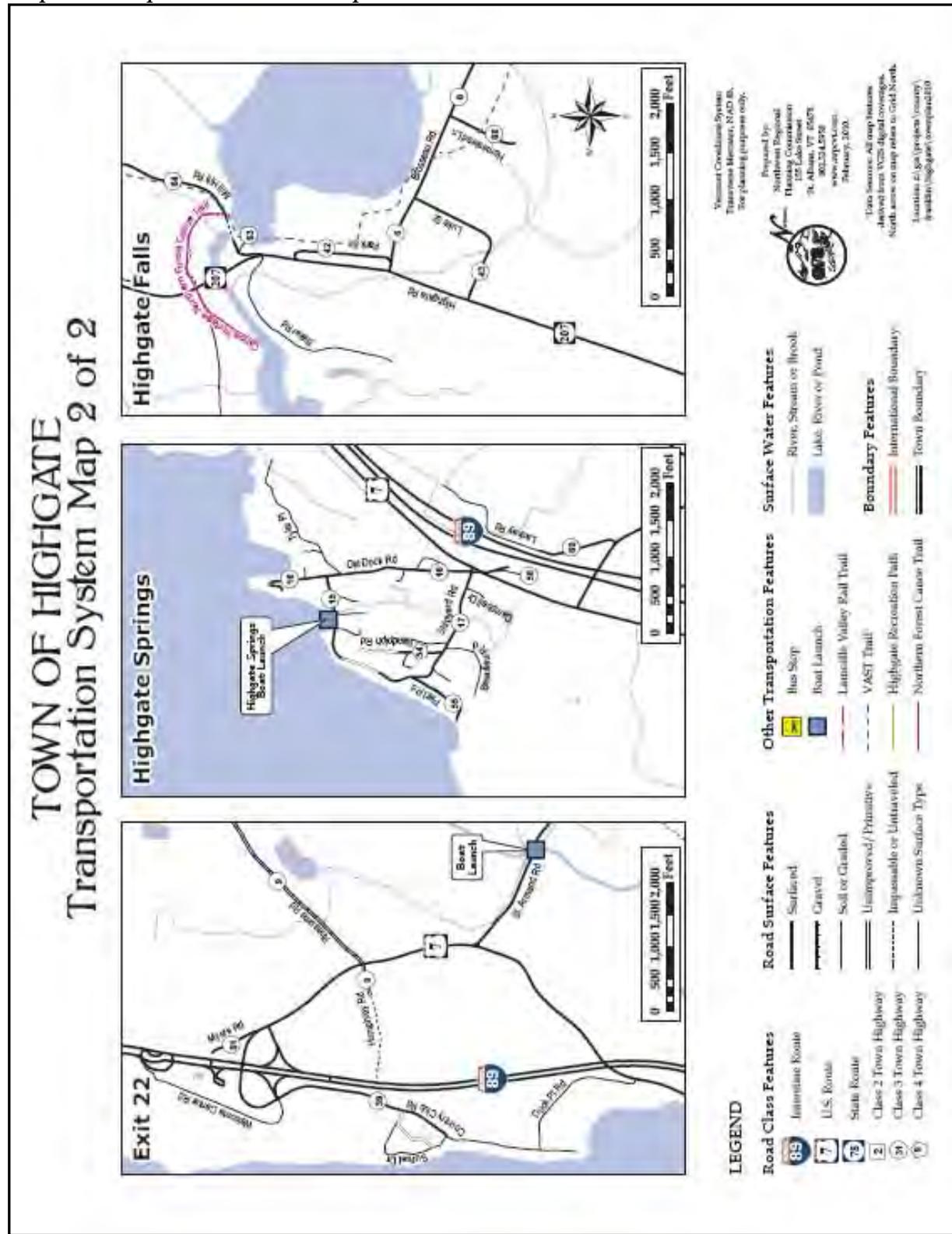
To ensure safe travel and parking in Highgate, the Town adopted a traffic ordinance in June of 2001, setting traffic speed to 35 in several areas of the Town and outlining parking regulations.

To meet the growing needs of the community, Highgate began talking with the Northwest Regional Planning Commission about implementing access management, specifically in the Lamkin Street area. The purpose of access management is to improve vehicular access to businesses, homes, and other land uses without sacrificing safety and efficiency.

Map 6.1 Highgate Road System



Map 6.2 Transportation Areas of Importance



AIR AND RAIL

The Franklin County Airport is a transportation asset to the community, particularly in the area of industrial development. The Franklin County Airport in Highgate is the region's sole public airport facility. The State funded airport is owned by VTTrans and serves private aircraft. In 1998, VTTrans published an [Airport Systems Policy Plan](#) that outlines a strategy for the State's 17 airports and essentially raises their priority for maintenance and improvements. The Franklin County Airport has the advantage of being relatively close to Burlington International Airport (BIA) and Interstate 89. The airport functions as a reliever airport, providing a role in handling overflow freight and private carrier traffic from BIA. According to a study published by VTTrans in April 2003, titled *The Economic Impact of Vermont's Public-Use Airports*, Franklin County Airport's its 2002 annual revenue was \$1,608,812 and it provided 27 local jobs that year.

VTTrans has several improvement plans on the table for the Franklin County Airport. They include a 150 ft by 100 ft extension to the existing runway safety area to meet the FAA safety area requirements, construction of an expanded apron/tie-down area and stub taxiway, a helipad and jet fuel farm to support homeland security and border patrol operations, and installation of an automated surface observation system.

Recently, VTTrans assessed the vitality of the Lamoille Valley rail corridor, including the extent and cost of any upgrades. Due to the conclusions of the assessment and under direction from the Vermont Legislature, rail service has been abandoned, and the corridor rail banked. The corridor will be leased to VAST and used as a multi-use trail. Establishing the Lamoille Valley Rail Trail is in the planning phase.

ROAD SURFACE MANAGEMENT SYSTEM (RSMS)

In most municipalities, road and street surfaces represent the largest single cost of building and maintaining a transportation system. Forty to fifty percent of public funds spent on roadway systems are for the road surface (Source: RSMS Workshop Notebook and Reference April 1998 - UNH). It is extremely important that towns control their cost by preventing deterioration of roadway surfaces. Doing this requires making cost effective decisions regarding the maintenance, repair, rehabilitation, and construction of roadway networks within the Town.

The Road Surface Management System (RSMS) is used to determine the condition of roadway surfaces for both paved and unpaved roads. An inventory of paved and unpaved roads was taken along with a road condition survey by a consulting firm in the fall of 1999 for the Town of Highgate. A summary of the results was completed at this time.

In 2004, the Town hired a consultant to incorporate the RSMS survey data into the Geographic Information System (GIS) program ArcView, made by ESRI. Using RSMS data in ArcView allows the Town to view the data spatially in a map rather than just in a table. The Town Highway and Administration staff is responsible for maintaining current inventories of all elements of the Town's highway infrastructure (roads, culverts, and bridges). This information provides the Town a greater percentage of cost-share from the State when receiving AOT grants. It is also used in the Town's capital planning efforts.

PUBLIC TRANSPORTATION

The Town of Highgate is not serviced by fixed public transit. Green Mountain Transit Authority offers connections to St. Albans and then to Burlington, from there Burlington International Airport is the closest airport with national and international connections.

The Northwest Vermont Public Transit Network (Network) is responsible for public transit in Franklin and Grand Isle County. The Network has established a subscription route service between Richford and St. Albans and fixed route St. Albans City Loop. Residents can coordinate rides for the subscription service by calling The Network. The Network also coordinates the Ride Share program, Medicaid, and elderly transportation services.

BICYCLE AND PEDESTRIAN FACILITIES FEASIBILITY STUDY

In December of 1999, the Town of Highgate and the Northwest Regional Planning Commission hired the consultant firm DuBois and King Inc. to prepare a *Bicycle and Pedestrian Facilities Feasibility Study* for the village of Highgate Center. The Village is the primary area of concentrated development within the Town. The Highgate Elementary School, general store, municipal offices, several businesses, and a concentration of residences are located in the Village. The Missisquoi Valley Union High School, the Franklin County Airport, and the Franklin County Field Day Site are located along VT 78 within three miles of the Village. Currently, there are no sidewalks in the Village and shoulders along VT 78 are generally less than one foot in width. An increase in the number and speed of motorized vehicles along VT 78 has decreased safety for people who wish to walk in the Village and cycle along VT 78. In addition, VT 78 is designated a 53-foot truck route by the State of Vermont. The Feasibility Study, published in June of 2000, addresses ways to improve safety for cyclists and pedestrians along Vermont Route 78 between the Missisquoi Valley Union High School and the Village of Highgate Center as well as within the Village of Highgate.

The Study found that the community is in favor of improving its bicycle and pedestrian infrastructure and that providing sidewalks along Route 78 near the St. Armand and Gore Road intersections and to the Elementary School and Sports Arena are the number one priority improvements. The Lamkin Street Corridor study conducted in 2007 also recommends improving access to and from this area with sidewalks. For safety, improved quality of life and to encourage more high density development a better sidewalk network in Highgate Center and the surrounding neighborhoods would be beneficial.

TRANSPORTATION GOALS

1. To provide an efficient cost effective transportation network to meet the various needs of the residents of the Town.
2. Maintain a road system that guides the development goals of the Town.

TRANSPORTATION OBJECTIVES

1. Maintain the highest quality road surface for facilities serving industrial land uses.
2. Roads should be maintained according to a systematic review of their condition and levels of use, i.e. sound quantifiable policies.

3. If development roads are to be taken over by the Town, they must be built according to specific standards, the costs of which shall not be borne by the taxpayers of the Town.
4. Utilize access management policies, keeping curb cuts to a minimum when planning for new growth.
5. Develop an access management plan for the Town.
6. Work with Swanton, the Northwest Regional Planning Commission, and VTrans in developing park and ride facilities.
7. Implement all traffic control devices necessary to facilitate movement of traffic.
8. Maintain RSMS conditions inventory and use it in capital budget/program decisions.
9. Continue to update the traffic ordinance to ensure Town roads are adequately posted for enforcement and safe travel.
10. Continue to work with VTrans and the Northwest Regional Planning Commission to improve bicycle and pedestrian facilities in Town.
11. Encourage the construction of sidewalks and amend bylaws to require them to be included in high density residential zones.

CHAPTER 7

Community Facilities and Services

INTRODUCTION

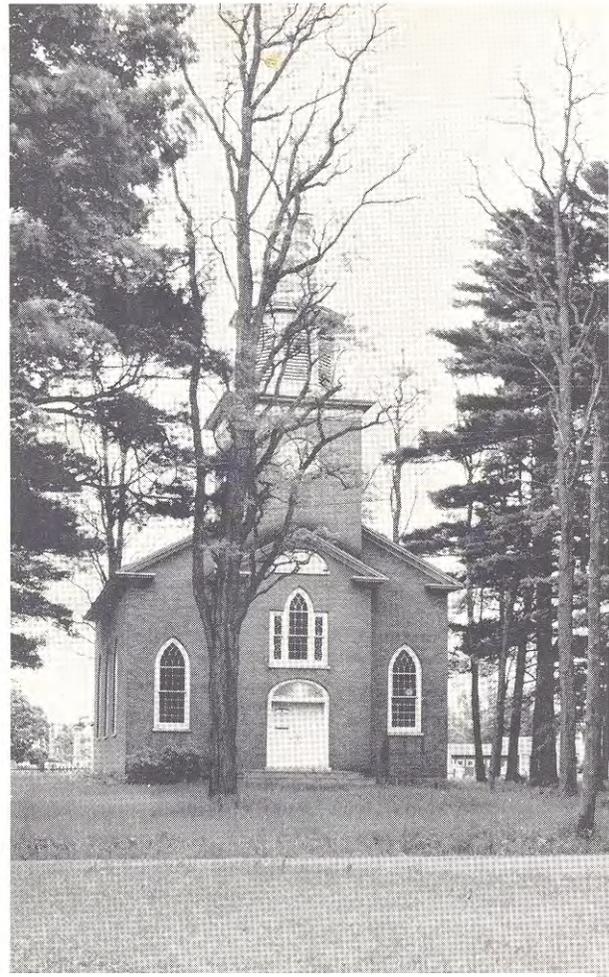
Community facilities include those institutions that provide a civic and social system function. Facilities providing education, recreation, and safety are of particular interest to Town government, and since most of these facilities and institutions are developed by and paid for by the entire community, they become by their very nature part of public policy.

Every facility or institution costs money, usually paid through local taxes. If these features are desirable then it is money well spent. However, working at cross-purposes, duplication of efforts wastes a very limited tax resource. As the demand for public expenditure increases, it is incumbent upon the developers of public policy to achieve the necessary coordination. Facilities and institutions can be used to shape and implement all phases of community policy. The location of roads, Town offices, and services for instance, governs to a major extent the development of land. Similarly, school placement and expansion can govern the pace of residential development.

EDUCATIONAL FACILITIES

It is with great pride that the teachers of Highgate Elementary School serve the children, families, and taxpayers of Highgate. They are dedicated to giving quality educational services and actively pursue professional development opportunities. The Schools goal is to provide an exceptional education to all children regardless of their abilities and/or disabilities. The School strives to make all children lifetime learners by providing them with the skills to be productive members of the workforce and citizens who will be leaders in our Town, State, and Nation.

The Highgate Elementary School is governed by an elected school board of five dedicated public servants. They are responsible for developing all school policies, which set the pathway for school operation. The second primary responsibility of the School Directors is to establish a budget and monitor expenditure of all funds. Each bill is reviewed and authorized before payment. This process guarantees that the taxpayers' hard-earned dollars are expended in an appropriate manner.



St. Johns Episcopal Church, Highgate Falls, VT
Used with permission from the Highgate
Historical Society

Map 7.1 Facilities and Utilities



The day-to-day operation of the school is delegated to the principal. The principal is responsible for executing all board policies and operating the facility in the best interest of children, their families, and taxpayers. The principal is the educational leader of the school and is responsible for all aspects of operation.

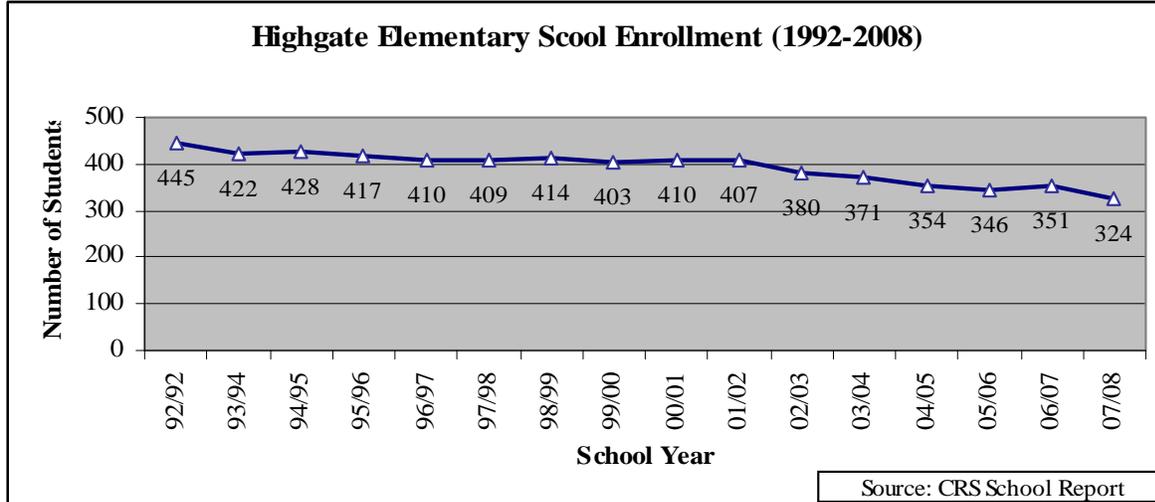
The Highgate Elementary School is a part of Franklin Northwest Supervisory Union (FNWSU), which consists of elementary schools in Highgate, Swanton, Franklin, and Sheldon. Highgate's post-elementary students attend Missisquoi Valley Union High School.

The FNWSU is led by a Superintendent of Schools who is elected by the school directors of all member towns. The Superintendent's Office provides district leadership in regular education, special education, business management, and curriculum development. Highgate has always maintained a close working relationship with the Superintendent of Schools.

Highgate Elementary School is located adjacent to the municipal arena. In 1999, the School District purchased an additional 20 acres, which should serve space needs for several decades. The existing school property consists of two buildings, play fields, parking lots, septic fields, and open spaces. It is nestled in a residential section of Town with limited traffic. In summer of 2004, volunteer efforts led to the construction of a one-mile walk/run/bike path around the perimeter of the school property and the ice arena.

The original building (the White Building) was constructed in 1941 and served children in grades 1-12, who previously attended one-room schoolhouses. This facility was renovated in 1999 and presently houses grades five and six, a music classroom, and special services offices. With no existing bathroom facilities in these classrooms, the school principal encourages the construction of three new classrooms with bathrooms. A second building (the Brick Building) was constructed in 1961 and a substantial addition was added in 1990. This facility presently houses children in preschool (Essential Early Education, EEE, and Head Start) to grade four. Additionally, room is available for physical education, art, music, counseling, special education, and administration. Other possible improvements might include office areas for grades K-4, a new gym that would benefit the entire community, and a band room. There also has been discussion of a new access road that would eliminate a current traffic problem at the school.

FIGURE 7.1



Elementary school age children have been decreasing steadily over the last decade (Figure 6.1), and therefore the construction of the additional school facilities might not take place until there is greater need. As of the 2007/2008 school year, there were 324 students in grades pre K through grade 6, with an opportunity to grow by 184 students without the necessity of further building. This appears to be more than sufficient to provide for future school age children in Highgate; however, even with the decrease in school age children, there is a high demand for special programs and services that require more space. This will influence how soon the construction of additional school facilities will take place.

Nearly all the students attending Highgate Elementary School are transported on school buses. For the 2004 – 2005 school year, this complicated and costly process impacted the Town budget by nearly \$232,000. Two competent and caring contractors provide the service. However, as families spread to the more rural sections of Town, the process becomes more costly and difficult.

At Highgate Elementary School, mathematics is stressed through computation and number knowledge. The School is very focused on improving its curriculum in the area of problem solving. The School's goal is to develop quality knowledge of numbers and the ability to use this knowledge to solve everyday mathematical problems.

In addition to the other basic subject areas, Highgate Elementary School is deeply committed to preparing students in the technologies of the 21st century. With the assistance of bonds, grants and fund raising, the School has been able to make computers a basic part of the curriculum over the course of the past ten years. Each classroom has a minimum of three computers available for students, and a school wide computer lab and network allows every child instant access to word processing, information, and the Internet. It is a joy to see children researching projects and finding complex information with this technology.



First High School in Highgate, opened in 1907
Used with permission from the Highgate Historical Society

The Highgate Elementary School offers comprehensive instruction in physical education, art, health, and both vocal and instrumental music. Any child wishing to learn can gain a quality education in Highgate.

The Elementary School offers a variety of programs designed to enhance and enrich a child's school life. In the arena of co-curricular activities, both girls and boys have the opportunity to learn skills and excel in basketball, soccer, and baseball.

During the summer months, the Elementary School runs a summer school program serving between 95 and 120 students each year. Offerings in this program range from academic assistance to enrichment activities for all students. The winter enrichment program is less academically oriented and focuses on lifetime activities such as cooking, French, cribbage, fly-tying, and many others. This program is a big hit with both students and their parents.

The Highgate Elementary School is particularly proud of their extensive program for accommodating students' different physical and educational needs. Regardless of a child's disability, they work diligently to provide the best possible education opportunity.

One of the joys of working at the Highgate Elementary School is the trusting relationship between the school and the community. There is a wonderful working relationship with the arena, which is located adjacent to the school. Children make use of these facilities for ice and roller-skating, as well as baseball and soccer.

Parents are constantly involved with the school. The School holds senior citizen dinners and classroom teas that bring many generations together and allow us all to learn from one another. An excellent example of community involvement is the school playground, which was entirely built by community members.

Missisquoi Valley Union High school (MVU), where children in grades 7 – 12 attend, is located on Route 78 in Highgate. Approximately 1,200 students attend MVU from the towns of Highgate, Swanton, and Franklin.

MVU is staffed by an outstanding group of teachers who offer state of the art instruction in all core curriculum areas. MVU is particularly proud of its reading program, which stresses fluency, comprehension, and vocabulary. Over the last several years, the MVU community has witnessed significant growth in student's statewide assessments.



Missisquoi Valley Union High school

Photo Credit: NRPC

Continuing education for adults is available in St. Albans, Burlington, or Plattsburg, New York. Higher education opportunities also exist in St. Albans and Burlington, the Community College of Vermont offers courses and degree programs. Numerous colleges in the Burlington area include the University of Vermont, Burlington College, St. Michael's College, and Champlain College.

EDUCATION GOALS

1. To provide educational opportunities commensurate with the needs of the population.
2. To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of current and future residents.
3. To ensure that growth keeps pace with the ability to provide educational services.

EDUCATION OBJECTIVES

1. Work to develop educational facilities and programs that can be shared or used jointly by union towns.
2. Use the Town's educational resources more effectively by requesting that State mandated school programs be State funded.
3. In order to more equitably fund the cost of an expanding school system, adopt an Impact Fee Ordinance that includes an educational component. The Impact Fee Ordinance would require the payment of an impact fee for each new building or housing unit built in the Town. The fees collected would be used to establish a fund, which would help finance future capital investments in Town services and facilities such as school facilities.

4. Coordinate new partnerships with various groups and organizations including, but not limited to, Highgate Historical Society, the Franklin County Chamber of Commerce, Friends of Missisquoi National Wildlife Refuge, the Missisquoi Bay Working Group, local churches, the youth service group Highgate Cares, and the Abenaki Self Help Association to provide community activities and educational opportunities for young and old.

POLICE PROTECTION

The Town of Highgate currently utilizes the services of the Vermont State Police and the Franklin County Sheriff Department for public safety and law enforcement. Dispatching services are based out of the Williston Barracks while four troopers work out of outposts in eastern Franklin County. The two outposts help to facilitate communication and to shorten the response time with the surrounding communities. The Franklin County Sheriff's Department covers Franklin County and contracts with individual towns requesting additional police services. Highgate has contracted with the Sheriff Department for 40 hours/ week of coverage. In July 2009, the Department had a total of 16 full-time deputies and 23 part-time deputy officers. The Sheriff's department has 13 fully-equipped Ford Crown Victoria patrol units, 4 four-wheel-drive vehicles, 3 unmarked vehicles, 2 Arctic Cat snowmobiles and 2 all-terrain-vehicles Crime statistics for the region can be obtained from the Department of Public Safety – Criminal Justice Services. A list of all offenses and their definitions can be found in the Vermont Crime Report available from the Vermont Department of Public Safety. To provide additional coverage at MVU, the School received a grant for a full time resource officer. The deputy officer patrols the school five days a week. The U.S. Border patrol also has a significant presence in town contributing to law enforcement efforts.

POLICE PROTECTION GOAL

1. Continue to provide police protection services that ensure residents of the town a safe and comfortable standard of living.
2. .Work to identify methods to fund and enhance the police protection in our community.

FIRE PROTECTION

Fire fighting and rescue services are two services that are absolutely essential for communities to function. The Highgate Volunteer Fire Department provides fire protection for the Town. The department has twenty-eight active members. The department is funded by Town appropriations, donations, and fundraisers.

The fire station is a town-owned building located on Vermont Route 78 in Highgate



Highgate Fire Department

Photo Credit: NRPC

Center along with the Municipal Offices. The 60 x 79-foot building is divided into four bays. The building has room for an office/communications center, a training room, a maintenance area, and a storage facility. The meeting space is located in the municipal complex and is 30 x 22 feet in size. The fire station is adequate for the present inventory of equipment. However, as population growth continues, pressure may be placed on the department to expand.

The current major pieces of fire fighting equipment are:

- ◆ Pumper: 1987-1988 1000 GPM, 1000 gallon tank
- ◆ 1983 Mini Pumper
- ◆ 1989 Ford Tanker: #1 2000 gallons
- ◆ 1998 Freightliner Tanker: #2 2500 gallons
- ◆ 1982 Chevrolet Van: Lights and hand tools 6 S.C.B.A. plus 20 spare bottles
- ◆ Special Equipment: 1000 feet 4 inch hose

Useful lives of fire vehicles are generally in the range of 20 to 25 years. There are plans to replace the 1968 Pumper in 2005. The Town has started a reserve fund for the purchase of the new pumper. The fire department also anticipates significant income from fundraising, but the balance of the payment will most likely be raised through a municipal bond.

The Department responded to 95 calls in 2003, up from 72 in 2002. Of the 95 calls, 30 were auto accidents, nine were mutual aid calls, seven were structural fires, six were EMS/AED calls, five were non-structural fires, three were good intent calls, and 35 were listed as other.

FIRE PROTECTION GOAL

1. Continue to provide first-rate volunteer fire protection.

FIRE PROTECTION OBJECTIVES

1. Identify equipment that needs to be replaced and develop methods of financing the replacement.
2. Continue to support the needs and acknowledge the efforts of the local volunteer firefighters.
3. Continue to provide the necessary training for all members of the fire department.
4. Start a recruitment program that can further enhance the fire department.

AMBULANCE AND RESCUE SERVICES

Ambulance and rescue services are provided to the towns of Highgate and Swanton by Missisquoi Valley Rescue, Inc. (MVR), a nonprofit volunteer organization. The Rescue Squad was formed in 1970. MVR relies on donations, contributions from the Town, and payment from people for services rendered to them. The rescue squad has a facility on 21 First Street in Swanton. This facility was constructed in 1976 and has space for storage and classroom training.

MVR currently has 17 paid employees, 3 are full time and 14 are part time. There is 1 volunteer that also provides service. These employees include drivers, Emergency Care Attendants (ECA), EMT-B and EMT-I. During the spring of 2010 there was an increase in paid staff due to the

volume of calls and a decrease in volunteer members. This was passed by a vote on Town Meeting Day, 2010.

From July 2007 to June 2008,, the rescue squad responded to 271 calls from Highgate. The rescue squad has two state-of-the-art ambulances, one from 2006 and another from 2000. Both meet all Vermont and federal emergency medical standards and regulations. MVR also purchased a 2008 heavy rescue van that includes extrication equipment. Additional equipment includes a mass casualty trailer, 2 defibrillators and 2 vital signs monitors.

There has been funds allocated to purchase a new ambulance in 2010 and it is believed that the MVR facility could be larger to provide sufficient space in the future. However, presently MVR provides excellent service to the towns of Highgate and Swanton. This level of service is however dependent upon the continued support from donations and the volunteer staff. MVR continuously seeks more volunteers to maintain a high level of care to area residences.

The nearest hospitals are the Northwest Medical Center in St. Albans, and Fletcher Allen Health Care in Burlington.

AMBULANCE AND RESCUE SERVICES GOAL

1. Maintain the excellent service presently provided by the Missisquoi Valley Rescue.
2. Seek additional sources of funding to increase paid staff.

AMBULANCE AND RESCUE SERVICES OBJECTIVE

1. Obtain more volunteers and equipment as required to meet the needs of the community.

WATER SUPPLY AND WASTEWATER DISPOSAL

Water is primarily supplied by individual wells and wastewater disposal is handled on an individual, on-site basis. There is no municipal water supply or wastewater treatment system in the Town. There are state regulations that must be met for proper waste disposal. Compliance with these requirements is crucial to the health and well-being of the community. Sewage disposal systems that do not function properly pollute groundwater, contaminate drinking water sources, provide breeding grounds for disease, and cause noxious odors. The conversion of seasonal to year round dwellings contribute to septic problems, when outdated septic systems designed for seasonal use are then used year round.

Currently, the Town uses culverts and ditches to handle stormwater drainage. Increasing areas of impervious surfaces (ex. paved, blacktop) has the potential to create more stormwater runoff since the water cannot be absorbed into the ground. As development occurs in Highgate, the current infrastructures' ability to handle the volume of stormwater should be monitored. If stormwater runoff is not managed properly it can impair water quality in local watersheds by carrying more sediment and pollutants into streams, rivers and lakes.

Water and sewer infrastructure can serve to direct community growth and settlement patterns. A delivery system, if feasible, should provide for current and future growth objectives. Highgate

officials designated an industrial area near the current Transfer Station (former landfill site). Other locations just north and to the west of Highgate Center, and accessible to the Lamoille Valley Railroad right-of-way, have been identified in a 1998 *Development Feasibility Study* completed by DuBois and King, Inc. Water and sewer services could be developed along this westward corridor to serve the potential for industrial activity; initially, however, the Town may consider sponsoring a need and capacity study by an engineering firm to establish the location and cost of water and sewer services. Currently the only buildings serviced by water and sewer lines are municipal hall and library.

The protection of watersheds is important in every community. Drinkable water needs to be made available to all persons in the Town. Such things as silt filling up enclosed bodies of water or the introduction of harmful organic and inorganic chemicals can cause water to become contaminated. When this happens, the Town will need more expensive purification devices. Steps need to be taken to ensure that the water will remain safe for drinking.

WATER SUPPLY AND WASTEWATER DISPOSAL GOALS

1. Consider creating one or more, municipal water systems (fire district) for the Town of Highgate.
2. Reduce environmental impact of wastewater disposal systems, especially those systems in densely settled and environmentally sensitive areas.

WATER SUPPLY AND WASTEWATER DISPOSAL OBJECTIVES

1. Consider developing a long-range plan that creates municipal water systems, particularly to areas that services would be beneficial for development such as Highgate Center.
2. Apply for a grant to undertake a feasibility study for wastewater disposal facilities.
3. Include gauging cost of expanded water and sewer facilities to proposed development in the capital budget and plan; consider initiating an "impact fee" schedule to assess developers the cost to the Town of servicing a particular development.
4. In order to maintain the Town's agricultural image of undeveloped open land, promote clustered developments that share wastewater disposal systems.
5. Promote the use of alternative treatment systems for both primary and replacement service in order to allow for the safe disposal of wastewater on existing lots with substandard and inadequate soil conditions.
6. Any public investment in wastewater disposal should be planned to minimize development pressure on agricultural and forestry lands.

SOLID WASTE DISPOSAL

The Town of Highgate has an approved Solid Waste Implementation Plan (SWIP). State statute requires all municipalities to adopt a SWIP, which emphasizes recycling and tracking disposal amounts and materials. Since most of the businesses are family owned and operated, there is strong support for the proper management of solid waste and recycling. The most recent SWIP was adopted in 2008 and will be reviewed as necessary.

In 1987, the Town opened a sanitary landfill on 9.8 acres of Town owned land. The landfill remained open until July of 1992. At this time, the State of Vermont directed the closing of all unlined landfills, which applied to Highgate, and many other towns. During this same time, the

Highgate Transfer Station and Recycling Center (HTS) opened. The Town signed a ten-year contractual agreement with Waste USA (WUSA) in June of the same year, which privatized solid waste management. Waste USA left the facility and contract at the end of 1994 and Casella began operating the facility in early 1995. Highgate has renewed the contract with Casella several times and the current contract will be reviewed in 2011. There has been zoning and Selectboard approval for an additional landfill to the North of Highgate transfer station. The new facility will be established pending state approval.

The Town receives a host fee of \$2 per ton in lieu of any charges for the operation of the facilities. Voters approve all expenditures through the Town Budget at the Town Meeting. At the HTS, the Town owns the building and land while Casella operates all daily business. The transportation of solid waste to the HTS is done by residents contracting a private hauler or by bringing the solid waste to the site in private vehicles. Casella then transports the product from the station to the lined landfill in Coventry in their trucks or those under contract. Recycling is offered free of charge at the HTS for the duration of the Casella contract. The HTS is also used by other towns under separate contract with Casella. It is the intent of the Town of Highgate to improve solid waste management programs. A complete description of the Solid Waste Implementation Plan can be found at the Town Clerk's Office.

SOLID WASTE DISPOSAL GOALS

1. To provide the best solid waste management facilities and programs that are cost effective, efficient, and environmentally correct for all the citizens and businesses of Highgate in accordance with applicable State Statutes.
2. Prohibit and prevent the improper storage and disposal of hazardous wastes in the Town.
3. Increase recycling, composting and solid waste diversion by educating public..

TOWN OFFICES

The Municipal Office is a two story 44.4 x 79 foot building which contains office space for the Town Administrator, Town Clerk, and the Town Treasurer. Also located inside the building are a vault, a computer room, a community center room, two bathrooms, and space for storage. Built in 1978, the building is ADA (Americans with Disabilities Act) compliant and also houses the Highgate Volunteer Fire Department. The building is used for public meetings, group gatherings, and as a senior meal site.



Highgate Community Center
Photo Credit: NRPC

Currently the town offices are not adequate as more office space as well as larger meeting rooms would better accommodate the current needs of the staff and community. However there have been several improvements made within the previous 5 years. Energy efficient windows were installed in place of all of the original windows in the Town Office. New propane heaters were installed in five office rooms. An ADA compliant door was installed in the rear access to the Community Room. And the Town Clerk's Lobby and Listers' Room were remodeled.

HIGHWAY DEPARTMENT

The Town Garage was built in 1978 and is located on Route 78. The heated building is 76 x 79 foot in size and consists of four bays. Office space is located in the building along with storage space. The Town has begun to plan for a new highway garage to be constructed in a new location. Highgate has a salt and sand shed located at the Highgate Transfer Station. The Vermont Agency of Transportation loaned the Town their engineering plans for construction of the new covered facility, constructed in 2002. A new wing was also completed in 2005 with a heated bay. Prior to construction of the shed, the salt and sand was stored in an unenclosed location behind the garage while the salt pile was stored inside the building.

Revenues from the Town's transfer station fund are used for most new highway vehicles and the salt and sand shed. Additional funding sources would likely be needed for the construction of a new highway garage.

The Town currently has the following major pieces of road equipment:

- ◆ 2004 International Dump Truck
- ◆ 1999 International Dump Truck
- ◆ 1997 International Dump Truck
- ◆ 2002 John Deere Loader
- ◆ 2005 GMC 1 Ton Pick-up Truck
- ◆ 1974 Massey-Ferguson Tractor
- ◆ 2004 John Deere Back Hoe
- ◆ 1991 Caterpillar Grader

The equipment is in excellent condition and should serve the needs of the community for the coming years.

TOWN OFFICES AND HIGHWAY DEPARTMENT GOALS

1. Maintain Town Office and meeting space to meet the ever-expanding needs of the community.
2. Maintain Town Garage and equipment inventories to keep pace with Town growth.

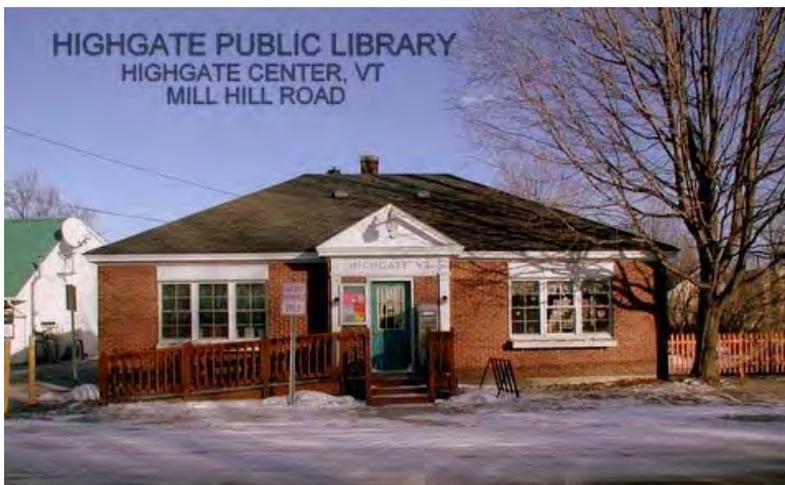
TOWN OFFICES AND HIGHWAY DEPARTMENT OBJECTIVES

1. Move Town Garage to location between the transfer station and the sand shed.
2. Consider funding opportunities and create strategic plan to move municipal offices into a building that better suits the needs of the Town and can be utilized more efficiently.
3. Consider alternative options for the use of the building where municipal offices are currently located.
4. Further inventory road and office equipment to determine necessary future expenditures and upgrades.

PUBLIC LIBRARY

The Highgate Public Library, originally built in 1941, is located at 17 Mill Hill in the center of Highgate. Renovations in 1997 included a new roof, windows, and ADA compliant ramp. With a growing Town population and increased use of the library, the Library Board of Trustees and the Director is beginning planning efforts for new space. Research by library officials will determine the likely size, cost, and funding sources for this project. An initial meeting with Cross Construction, library staff, board members and an architect took place in November 2009,

The library contains approximately 9,130 books and 5 public access computers with internet access . The library initially purchased computers in 2001 with a grant from the Gates Foundation. The grant also enabled the purchase of library software and a laser printer.



Highgate Public Library

In addition to the books and computers, the library also runs many programs within the building. Some of these are weekly story hours, after school programs, pajama story hour, teen events, community book discussions and a 6 week summer reading program. The Library also coordinates a daycare outreach program called Daycare Express where theme based book bags are delivered to interested providers throughout Highgate. The space in the library to accommodate these successful programs that often attract

maximum attendees is not adequate. Programming can interfere with regular patron visits because of overcrowding in the small space.

The Highgate Library meets the standards set forth by the State of Vermont for public libraries, which allow the library to take advantage of several services offered by the Department of Libraries as well as making them eligible to apply for more grants. The status of compliance to these standards is reviewed each year. The Highgate Library has consistently met the standards since the late 1990's.

The library is staffed twenty-five hours a week by a certified, salaried librarian and an assistant librarian that works for sixteen hours a week. Support staff for programming is also included in the budget and is necessary for the continued success of the programs. The library budget includes an annual budget of approximately \$4,200 for new books and other circulated materials, the majority of which comes from the Town tax appropriations.

Library patronage has increased drastically over the past 3 years. Adult visitors increased from 2,691 in 2008 to 3,498 individuals in 2009. Additionally, the number of children visiting increased from 3,112 in 2008 to 3,516 in 2009. Programs have also been well attended especially summer programs which, as mentioned earlier, exceed the comfortable capacity of the library building. Due to limited shelf space, books that are not circulated within the past 5 years are often removed. With greater

shelf space the Library's collection could contain more volumes of interest to readers. Additionally, there is insufficient space for parking. The library is an important asset to the town, its residents and even neighboring communities. Expansion of space for the library should be considered in order to accommodate the growing interest and to continue being a positive presence in the community.

PUBLIC LIBRARY GOALS

1. Maintain library and operations as efficiently and economically as possible.
2. Provide library services that meet the needs of the community.
3. Improve or relocate the Library to better accommodate the demand for programming and library services.

PUBLIC LIBRARY OBJECTIVES

1. To continue to pursue various sources for funding for library improvements
2. To assess the feasibility and identify an optimal space to relocate library or some of the programming to better accommodate patrons and participants.
3. Address issue of available parking.
4. To maintain current computers and expand the technology available at the library.

RECREATION

Recreational facilities are an important aspect of community life. Facilities range from a boat launches and fishing access, to hiking trails and bike paths, to a baseball diamond. As the Town's population increases, it becomes necessary to provide more sites for recreation and to protect future recreation sites.

The Highgate Recreation Department provides a variety of cosponsored activities throughout the year. During the summer, you will find hundreds of youth participating in the Little League Baseball program, which is led by a host of community volunteers. Practices and games are held on four athletic fields, which convert to practice soccer fields, and one game field in the fall. Youth programs such as summer camp are a large part of the recreation schedule but there are many other activities for people of all ages. Many events such as company parties, bingo, raffle dinners, casino nights, wedding receptions, take place throughout the Town. The All Arts Council coordinates the ever-popular Summer Concert Series in the park for the residents and visitors of Highgate.

Sports Arena

The Highgate Sports Arena is a multi-use facility designed primarily as an indoor hockey rink, but it converts to a community recreation center during the warmer months. The Arena boasts a fully operational snack bar, six team locker rooms, a pro-shop, and maintenance areas. The parking lot has been paved and the arena complies with ADA requirements. A new Zamboni ice resurfacer



Highgate Sports Arena

was purchased in 2002, and the old Zamboni is being kept as a spare.

The Town is in the process of completing a multi-phase list of construction projects for the Arena area. The Arena has gone through some energy conserving improvements. A reflective ceiling has been installed, along with a new condenser, new lighting, and a new heating system. The department would like to find an alternative source of power to operate the compressors. In 2002, the back hallway was expanded by nine feet, including a new entrance and remodeling the referee's locker room. In 2003, the lobby and the restrooms were remodeled. Other improvements include the reconfiguration of the warm side of the building, which involves new locker rooms, renovations of the snack bar and lobby, and exterior building upgrades.

The Arena's ice system is leaking refrigerant and due to old age is in need of major repairs. The Selectboard established a Recreation Advisory Board to explore options to increase revenues and seek funding for this very expensive undertaking. As of Fall 2009 the total cost of the project to update the ice system as well as bring the building up to code was nearing \$2.7 million dollars. Congressman Welch visited Highgate and made a \$200,000 appropriation of federal funding toward the fundraising efforts of the Town. Much of the other funding would come from a bond that would impact tax rates for fifteen years. The Arena is an asset to the town, providing many opportunities for recreation and a place for area hockey teams to practice and host games.

The Missisquoi Valley Union High School (MVU) Thunderbirds call the Sports Arena their "home ice". Also on the ice during regular season is the Missisquoi Amateur Hockey Association Hockey. Both of these groups host games at the arena. Teams come from all over Vermont and New York to play. The Arena also sponsors ice skating lessons and a full-scale public skating program. Part of the schedule contains hours dedicated to other organizations that rent the arena for non-scholastic hockey games. The Men's Hockey League and Broomball League for example, consume many available hours of ice at the Arena. The Highgate Elementary School conducts a six-week ice skating program at the Arena as part of the physical education program.

Other Facilities

Highgate also has other recreational facilities and sites such as the Highgate Springs Boat Launch, the Riverwalk Trail, the Missisquoi National Wildlife Refuge, the Municipal Community Center, Highgate Cliffs Natural Area, the Franklin County Field Day Site, and the Tyler Place. The Town owns and maintains the single launch boat facility on Shipyard Bay Road next to the Tyler Place. The launch serves small craft during the summer months and it has an area to get shanties out onto the ice during the ice-fishing season. Capitalizing on the lake's recreational potential by increasing public access areas and developing recreational activities that relate to tourism will benefit everyone both economically and recreationally.

In summer of 2004, volunteer efforts led to the construction of a one-mile walk/run/bike path around the perimeter of the elementary school property and the ice arena. In addition, a canoe access area has been prepared by the Missisquoi River Basin Association and the State of Vermont Fish and Wildlife Department has built a small boat launch off the Waugh Farm Road.

The Municipal Community Center Room is a meeting room in the rear of the Municipal Office Building. The room is used for all public meetings except the school board meetings and the Town Meeting. The room can accommodate approximately fifty chairs and four long tables. It is well lit

and is carpeted. The room is also used by community groups and may be reserved by contacting the Town Clerk's Office.

The Franklin County Field Day Site is located next to the Franklin County Airport. Every year, the Franklin County Field Days are held here. This country fair is considered a Vermont tradition. Visitors can find such things as livestock shows, crops and garden exhibits, food, crafts, clothing, 4-H exhibits, horse pulls, carnival rides, music, snow mobile drag races, and much more at the fair. The Highgate Gun Club, a private non-profit, is another noteworthy recreational area in Town.

The Tyler Place is a private family resort on Shipyard Bay of Lake Champlain. The family geared resort has drawn families from across the country to Highgate for summer vacations for over 70 years and is a vital part of Highgate's small tourist economy.

Natural Areas for Recreation

The Missisquoi National Wildlife Refuge was established in 1943. It is located on the eastern shore of Lake Champlain near the Canadian border in Franklin County. The 5,839-acre refuge includes most of the Missisquoi River delta where it flows into Missisquoi Bay. The Refuge consists of quiet waters and wetlands that attract large flocks of migratory birds. Protecting and managing wildlife habitat is the primary goal of the Wildlife Refuge; therefore, care must be taken when visiting the area. Many types of recreational and educational activities exist at the refuge. Boating, fishing, wildlife observation, hiking, photography, and hunting, are just some of the activities one can enjoy at the refuge.

Highgate Cliffs Natural Area is located in Highgate State Park above Missisquoi Bay on Lake Champlain. It is approximately thirty-seven acres in size with elevations ranging between 100 and 252 feet. This natural area includes three significant natural communities and supports several uncommon or rare plant species. There is also a hiking trail located in the State Park. Visitors to the trail can observe panoramic views of northern Lake Champlain. The three natural communities include the following: a warm calcareous cliff community, a calcareous talus (rock fall), and a lakeside cobble shore.

The Missisquoi Valley Rail Trail traverses through many towns in Franklin County. The 26.4-mile trail, located on the former Central Vermont Railroad bed, links the communities of St. Albans City, St. Albans Town, Swanton, Fairfield, Sheldon, Enosburgh, Enosburg Falls, Berkshire, and Richford. The year-round trail accommodates snowmobilers, bicyclers, horseback riders, joggers, hikers, walkers, and cross-country skiers.

The Lamoille Valley Railroad Corridor has been rail banked and there are plans to convert it into a multi-use trail. This 96-mile corridor runs from St. Johnsbury to Swanton, and crosses the Missisquoi Valley Rail Trail in Sheldon. A Management Plan was passed in 2007 for the Lamoille Valley Rail Trail (LVRT) and sections are open to snowmobilers in the winter. Highgate should work with VAST as the trail is developed to ensure the needs of the community are considered.

Other recreational opportunities in the town include aviation at the Franklin County Airport, horseback riding, bicycling and hiking. In the winter snowshoeing, cross-country skiing and ice fishing can all also be enjoyed in Highgate.

RECREATION GOALS

1. Maintain existing, and encourage additional healthful recreational opportunities for the citizens of Highgate.
2. Increase community support and participation in recreational programs.
3. Acquire and develop more outdoor active and passive recreational space.
4. Investigate possible acquisition of lakefront or riverfront properties.
5. Promote energy conservation and efficiency in recreational facilities.
6. Use the Franklin County Field Day Site.

RECREATION OBJECTIVES

1. A strategic plan for the Ice Arena should be established with the support of surrounding towns to keep this facility open and in good condition.
2. Protect public access to beaches and other shoreline recreation.
3. Identify and promote the development of recreational and tourist activities, services and facilities placing emphasis on the use of natural and existing man-made resources and on development which does not contribute to pollution of the lake.
4. Add signs and maintain trails in natural areas, particularly Highgate Cliffs to offer more recreational opportunities for hiking.
5. Create a town map of walking paths and hiking trails.
6. Develop a marketing and informational brochure on Highgate's recreational opportunities.
7. Work with the school on co-op programs for the newly acquired twenty acres by the school.

CHAPTER 8

Land Use

EXISTING LAND USE

Land in Highgate is used primarily for agriculture or is considered forestland. The Town covers 59.8 square miles (38,279 acres), 11.5 square miles (7,291 acres or 19 percent) of which are covered by water. Of the 38,279 total acres, the number of acres in agricultural use is 16,057 acres, or 42 percent of the total. The number of acres of forested land is approximately 9,559 acres, or 18 percent of the total. Wetlands, shorelines and other non-buildable locations account for 14 percent of the land area in Highgate. The remaining 7 percent of the acreage in the Town is used for residential purposes, as either available for residential development, or for transportation purposes.

TABLE 8.1 LAND USE ACREAGE		
Land Use	Acres	Percent
Residential	1633.874	4.27%
Transportation/Utilities	965.969	2.52%
Commercial	22.992	0.06%
Industrial	8.211	0.02%
Other Urban	2.152	0.01%
Row Crop	10790.405	28.19%
Hay/Pasture	4947.520	12.92%
Other Agricultural	319.558	0.83%
Deciduous Forest	2665.508	6.96%
Coniferous Forest	1526.646	3.99%
Mixed Forest	2706.710	7.07%
Forested Wetland	2660.602	6.95%
Non-Forested Wetland	2718.058	7.10%
Barren Lands	20.261	0.05%
Water	7291.005	19.05%
Total	38279.471	100.00%

The Town of Highgate has three areas of State owned land covering a total of 340 acres. These areas include Highgate State Park (which is within the Highgate Cliffs Natural Area) covering 37 acres, the Rock River Access Area covering 7 acres, and the Rock River Wildlife Management Area covering 296 acres. The boundaries and locations for all of these can be found through the Survey Section of the Vermont Department of Forests, Parks, and Recreation and are identified on the Facilities and Utilities Map.

Settlement in the Town is typically spread out either along the existing roadways or along the shoreline. The overwhelming majority of development since 1980 has followed this pattern. Commercial and industrial development is primarily located along VT 78 and within the village areas. A small number of individual enterprises are scattered throughout the Town, and many home occupations are operating as well, although the exact number is unknown. Commercial "strip"

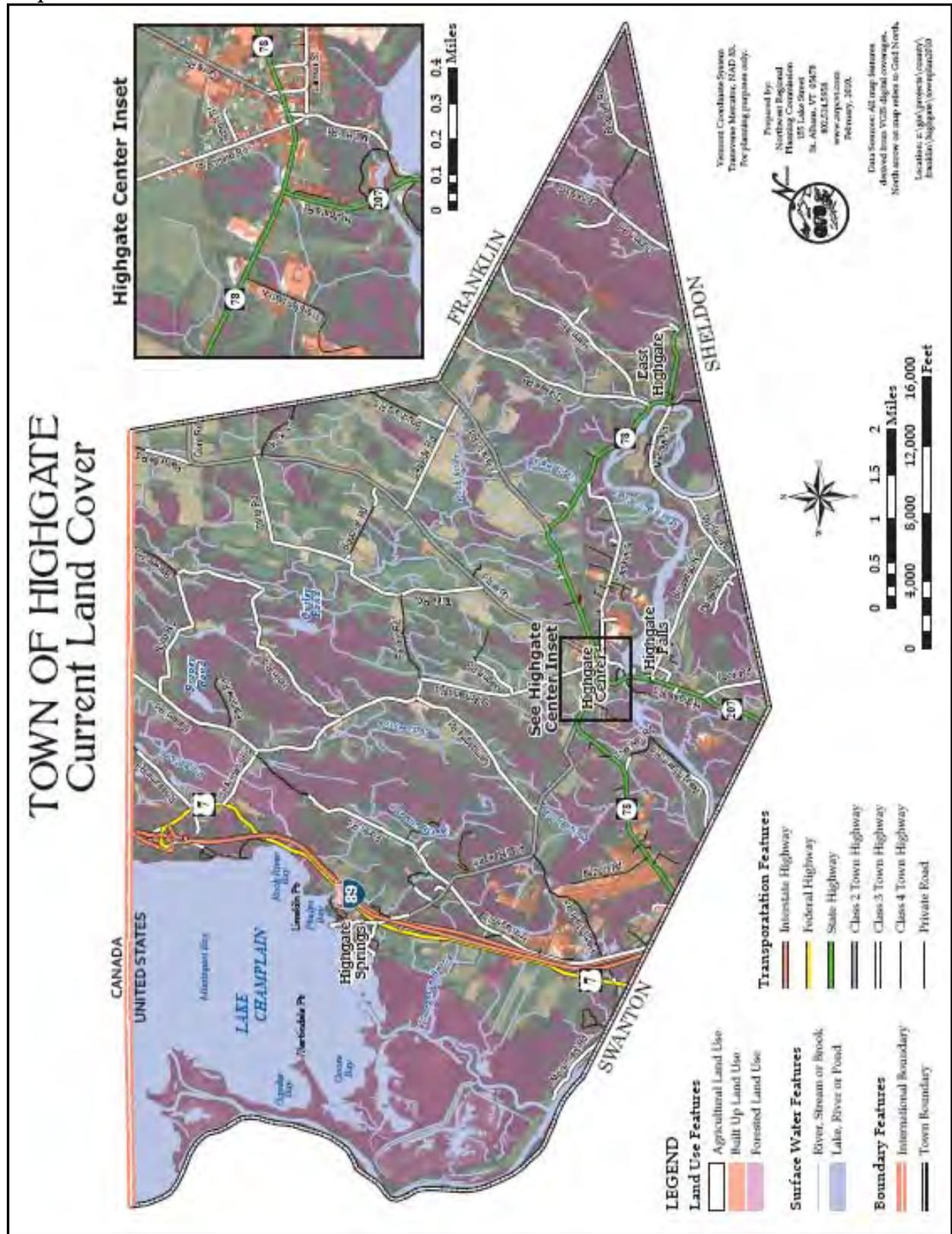
forms of development have been occurring along State Road 78 west of Highgate Center, particularly near the Franklin County State Airport. The Missisquoi Valley Union High School is also in the area, and combined with radically oriented commercial development, has created serious traffic conflicts along this stretch of roadway.

Residential development is by far the greatest growth industry in Highgate, making it somewhat of a "bedroom" community in many respects. The great majority of residential land use occurs within about two miles of Highgate Center, particularly east and west along State Route 78. Increased residential land use is also developing near U.S. Route 7 in the southwest quadrant and north of the State owned airport. Other lesser areas of existing and growing residential land use are Highgate Springs and East Highgate. Mobil homes on single-family lots are a substantial land use, and offer an affordable option to conventional single-family homes.

The population centers of Highgate Center and Highgate Falls contain the most dense residential use, consumer services, and public/semipublic buildings. The Public Library, School, Town Offices, and facilities all lie in Highgate Center.

The village of East Highgate is a somewhat static residential community with no commercial services. The village of Highgate Springs is also characterized as a residential enclave but is affected by the seasonal resort activities along the Missisquoi Bay shore. It should be noted that, like many other towns in Franklin County, Highgate has experienced a decline in seasonal dwellings

Map 8.1 Current Land Use and Land Cover



The recent increase in residential use is due primarily to the demand for new homes by Franklin and Chittenden County commuters. The rate at which agricultural and forested lands are being developed appears to be closely related to employment growth in both counties. Conversion of seasonal dwellings to year-round housing continues to be an issue in the Town, which the Town is addressing through their sewer ordinance.

The mineral extractive industry consumes a large portion of land use in the Town of Highgate; sand, and gravel deposits were once abundant in the area but are being depleted with increased demand. This industry has been used to support rapid development in Northwest Vermont over the years. The rise and fall in this industry should be assessed as it will effect the both the land use and the economic development in the region.

Several overriding goals for future land use and development are outlined below. Specific policies are contained within each section.

EXISTING LAND USE GOALS

1. To provide adequate, safe and affordable housing for all segments of the population.
2. To provide for a diversified economy by the development and expansion of appropriate industries and commercial and recreational businesses.
3. To protect and encourage the continuation of agriculture and production of value added goods.
4. To enhance environmental quality, preserve the rural, agrarian character of Highgate, and protect its natural assets.
5. To ensure that development occurs at a pace consistent with the Town's ability to provide services.

COMMERCIAL AND INDUSTRIAL DEVELOPMENT

The number of small-scale businesses in the community that provide employment, goods, and services to local residents is limited. This encourages residents to work and shop in neighboring towns and discourages new businesses from opening. While the number of commuters may be a concern for the Town, it represents an opportunity for attracting business and industry which will lead to retaining resident's spending within in the community. Businesses that serve and employ Town residents will add to the sense of community by limiting the need to travel to neighboring towns for basic necessities.

It is possible to encourage industrial and commercial growth without harming Highgate's quality of life by targeting environmentally sound industry. The Franklin County Airport and access to Interstate 89 are important resources for attracting industrial and commercial development. Currently, businesses are located along VT 78. Businesses such as Vermont Brick, Ireland Concrete, Carroll Concrete, Wright Excavating and Paquette are all industrial producers of concrete products, bricks, sand, and gravel. Raven Industries and Ray's Extruder Die Service (die makers), and Dexter Products (aluminum products) represent a trend in further industrial business siting. Additionally, Bousquet Truck Repair, Harvest Farm Equipment draw business to the area. While increased economic activity and well paying jobs are an important goal, development must be in accord with the character of the community, landscape, and environment.

Tourism is a constantly growing industry in the County. Recent efforts in the tourism industry have included the concept of "Countryside Tourism". Countryside Tourism promotes the unique resources

of a community as the main attractions. It is characterized by locally owned businesses, traditional patterns of development, utilization of existing vacant or under-utilized structures, diversity, and uniqueness. Highgate has several farms and sugaring operations that provide tours. Expanding this agritourism and recreational tourism can attract many visitors to Highgate. The Town should examine how tourism can be promoted as part of a diverse local economy.

Businesses in Highgate should remain small-scale and should promote locally produced goods and services to maintain the community's rural character. Additionally zoning for home businesses and small-scale business within residential areas should be encouraged. Infrastructure that attracts and supports these opportunities such as internet and other communication services should also be encouraged. Planned unit developments that combine the traditional mix of residential and commercial uses should be encouraged.

COMMERCIAL AND INDUSTRIAL GOALS

1. Encourage clean and environmentally sound light industrial and/or commercial development in appropriate districts.
2. Continue economic planning for new locally owned and operated businesses, and promote businesses that offer year-round employment and which utilize the local labor and materials.
3. Promote the importance of the Village as the Town's social, cultural, and economic center.

COMMERCIAL AND INDUSTRIAL OBJECTIVES

1. Promote further planned unit development (PUD) within village areas.
2. Promote the clustering of commercial activities near village center and high density residential districts to make development more energy efficient and to maintain rural character of the Town.
3. Ensure zoning discourages suburban sprawl and strip development by allowing for PUDs and adjusting parcel size and frontage requirements.
4. Continue discussions with Swanton to expand water and sewer system in Highgate.

AGRICULTURAL DEVELOPMENT

The Town of Highgate lies in a fertile and agriculturally important part of the Champlain Valley. Dairy farming, orchards, and truck farming are the primary agricultural activities still being practiced in the Town. Prime agricultural soils are an important Town resource. In Highgate, the number of acres in active agricultural use is, approximately 42 percent of the total.

According to the 2003 Grand List, there are approximately 55 farms in Highgate. This number has decreased by 10 since 1987 when the State Property Valuation and Review reported that there were 65 farms in Highgate. According to the 2002 Census of Agriculture, there are 770 farms in Franklin County, seven percent of which are in Highgate. While in some areas the number of farms has decreased, the total acreage in production may not have due to the consolidation of agricultural land into fewer owners who work larger parcels of land. However it is likely that in Highgate the number of farms as well as the acreage have both decreased over the past decade.

The loss of productive agricultural land may be due to the development of existing farmland for residential use which is currently more profitable for the individual landowners. This creates strong

pressure for development, presenting landowners in Highgate with difficult decisions to make. It is important to remember that agricultural and forestry landowners provide a public benefit by not developing their property, and cost the Town little in terms of municipal services. Keeping land in production provides pastoral scenic vistas, important wildlife habitat and other services, which contribute positively to the Town and region. These aspects of farmland that help maintain the rural character and high quality of life in the community cannot be overlooked.

The State of Vermont offers programs that tax agricultural and forestry property according to its use value. The purpose of these programs is to keep agricultural and forested land in production, and to slow development on these lands. In each program, the property must remain in agricultural or forestry use in order to receive benefits. A large proportion of property tax revenue lost to the Town is reimbursed by the State. The programs, administered by the Property Valuation and Review Division of the Vermont Department of Taxes, are Agricultural Land Program, Forest Land Program, Farmland Program, and Working Farm Tax Abatement Program. The State Legislature constantly threatens to eliminate or reduce funding for these programs. In Highgate, 59 parcels are part of one of these current use programs with a total of 2,273 acres of forestland and 7,637 acres of agricultural land.

AGRICULTURAL GOAL

1. Protect and promote the agricultural operations in Highgate.
2. Promote diversified farming operations and the sale of value added products to increase the success of the agriculture industry in Town.

AGRICULTURAL OBJECTIVES

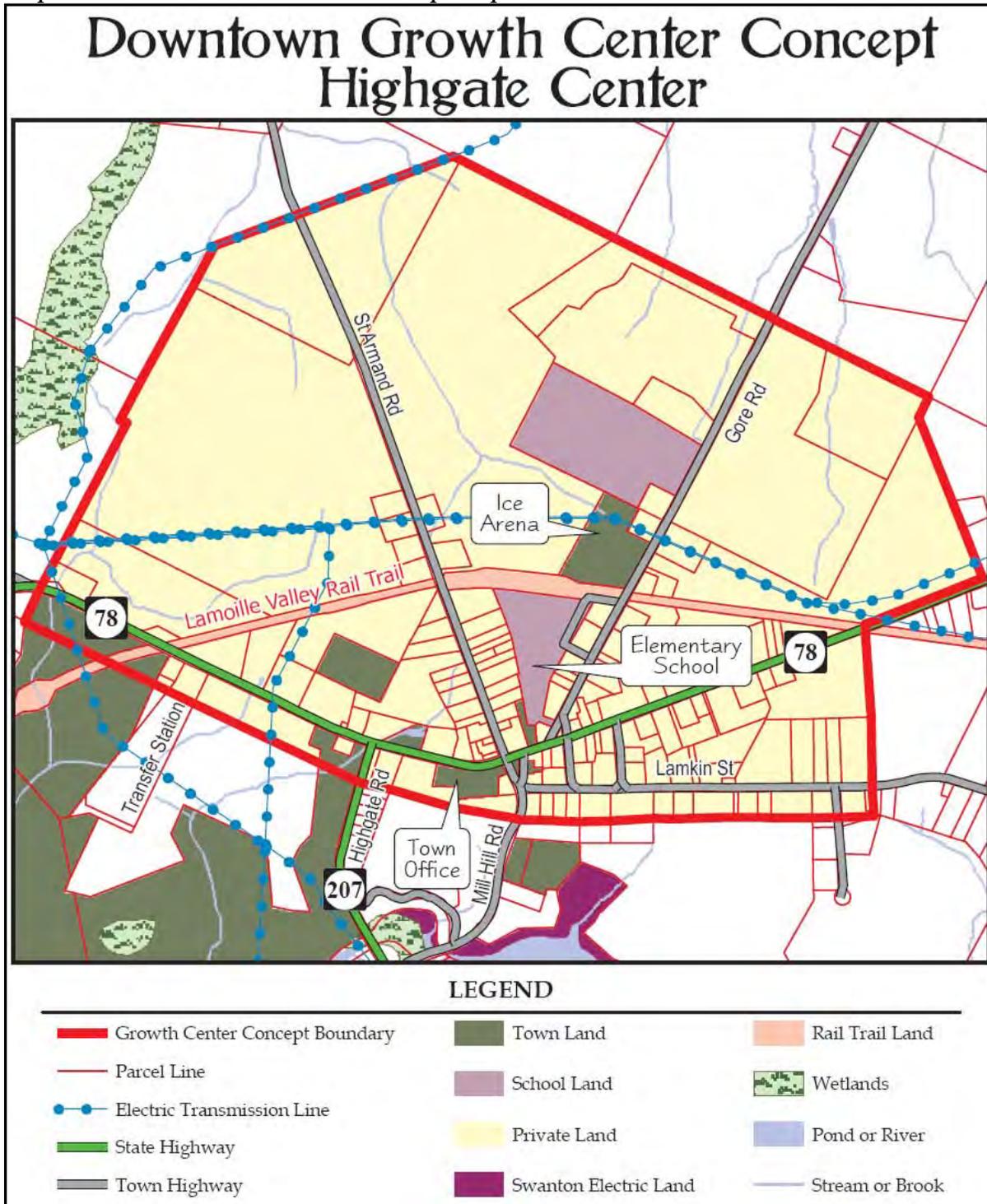
1. Work with farmers to provide assistance in maintaining viable business models in order to keep agricultural livelihoods profitable in Highgate.
2. Support continuation of the current use-value taxation programs.

DOWNTOWN GROWTH CENTER DEVELOPMENT

Highgate Center is already the location of many municipal buildings and services. The Library, school and ice arena are all within the close proximity. These, in addition to the high and medium density residential development in the area make it a good location for a downtown growth center. The concept of a growth center can centralize development which will be cost efficient by saving the town additional expenses by keep services and infrastructure in a smaller area. Clustering development can also allow greater accessibility to services by foot or bicycle as well as for the elderly.

The Town is considering also moving the municipal offices to a more suitable building. A new municipal building can serve as a community center with meeting space and other amenities available for residents to use. This would further enhance the downtown. Below is a downtown growth center concept map that has been drawn up by the Highgate Planning Commission.

Map 8.2 Downtown Growth Center Concept Map



DOWNTOWN GROWTH CENTER GOALS

1. Contain development within a boundary for cost and energy efficiency, to increase access to services and preserve the rural working landscape outside of the downtown.

DOWNTOWN GROWTH CENTER OBJECTIVES

1. Propose Downtown Growth Center to be included in future plans and bylaws.
2. Consider funding options and apply for grants to begin planning for new municipal office and community center.
3. Consider applying for official village designation.

PRESERVATION STRATEGIES

Highgate strongly values the rural character of its Town, including its natural and cultural resource base and its traditional working landscape of small village areas surrounded by farms, fields, forests, and shoreline. In an effort to preserve the Town's rural character and beautiful resource areas, it has established a Protected Area District and a Forest Reserve District. Recently, the Planning Commission has identified a need to more explicitly protect these two districts from development. The following paragraphs outline several options that Highgate is considering to ensure that more energy and resources are devoted to resource protection in those areas. They include a resource inventory, conserving land through conservation easements, development of a conservation commission, and development of a local land trust.

A thorough inventory of a community's natural resources and land uses is a crucial step that furthers a town's land use planning efforts and especially is useful in backing up its regulatory effort. There are funding options available to towns for doing extensive natural resource inventories, which can identify and prioritize land with its most suited use according to the community's values and natural resource constraints. Inventories are also used in open space and conservation plans and/or to modify zoning regulations to have more effect in protecting resource areas.

One of the most popular and effective methods that Vermonters use to conserve land is the conservation easement, most commonly through the Vermont Land Trust (VLT). The Town of As of March 2010, Highgate has 5,006 acres of land conserved through VLT and encourages landowners to continue placing land in trusts this way. VLT's mission is to conserve land for the future of Vermont and they do so for land that meets certain requirements in four categories: farms and farmland conservation, managed timberland and forestland conservation, land important to local communities, and family lands. The Vermont Housing and Conservation Board and the American Farmland Trust are two of many other organizations that also have conservation opportunities for landowners.

Conservation commissions and local land trusts are two other methods that further conservation efforts. Vermont Statute authorizes towns to create conservation commissions, whose authority is mainly advisory. They usually work with the town's legislative body and planning commission on a variety of issues related to land conservation, natural resources, and environmental protection. In

many communities, the conservation commission takes on a leadership role for natural resource and open space planning and drafts those portions of the municipal plan.

A local land trust works to secure funding for conserving and then managing land in that community. Local land trusts are usually funded through local support and through a variety of other funding sources including grants from the State and federal government and through help from larger land trusts, such as VLT.

PRESERVATION STRATEGY GOALS

1. Complete a natural resource inventory and identify preservation strategies to further protect Highgate's natural resources.
2. Encourage landowners to pursue conservation easements through the Vermont Land Trust to preserve the rural character of Highgate.

PRESERVATION STRATEGY OBJECTIVES

1. Promote the use of easements and the current use program to keep working landscapes and preserve the rural character of the Town.
2. Consider re-adopting the Native American Sites District and Archaeologically Sensitive areas into Bylaws.

THE LAND USE PLAN

Future land use in the Town of Highgate has been established by the Planning Commission, and is based on natural resources and other data provided through the Northwest Regional Planning Commission. The following policy criteria were used to approach the land use plan:

1. Locations poorly suited for development
 - Development will avoid areas with steep slopes or be carefully controlled to avoid unnatural erosion.
 - Development will generally avoid areas with shallow soils. Conventional on-site sewage disposal systems will not be allowed in areas where depth to bedrock or impervious strata is within two feet of the bottom of the trench or seepage pit.
 - No housing units would be permitted in areas where depth to seasonal high water table is 0 to 1 1/2 feet.
2. Resource Lands and Natural Areas
 - Development within shoreline areas of streams, lakes, or ponds, will be compatible with the natural beauty of the area, protect existing vegetation, and be set back sufficiently to prevent erosion or pollution. Where possible, visual and physical access to the water bodies will be retained.
 - Unique natural areas will be protected or reserved for their aesthetic and recreational value.
 - Wildlife habitats as identified are protected from development.

3. Areas Potentially Hazardous to Human Life and Health

- No land alteration that interferes with the natural flow of waters to surface waters will be allowed.
- Development in an aquifer protection area, which will contaminate a public water supply, will not be permitted.
- All development other than uses and structures essential to the operation of agriculture, forestry, outdoor recreation, and wildlife protection will be restricted in floodways.

PROPOSED LAND USE DISTRICTS

Land use districts were delineated for the Town of Highgate. The Districts are conceptual (not necessarily site specific) and will become the basis for the zoning districts; zoning bylaw updates closely follow the District delineation in the Plan. Referring to the District land use map, the intent of classification is as follows:

Agricultural District (A.D.)

The Agricultural District is designated for land best suited for, and primarily used for, agricultural purposes. This district includes the prime tillage areas, pastureland, and farm woodlots. Due to soil conditions and the district's location with respect to existing and anticipated land use patterns, much of this district remains economically viable for agriculture and should, to the extent possible, be preserved for agricultural use. Agriculture business (agribusiness) and limited residential uses are permitted so as not to interfere with, or materially alter, the primary character and designated uses of the Agricultural District.

Medium Density Residential (M.D.)

This district is intended to accommodate traditional country living characteristics. Due to the soil characteristics, terrain and highway access, the land in this zone must be put to a lower intensity of use than the high density zone. A medium density of development should manage to preserve the environment and character of this zone, even though Planned Unit Developments are permitted as a conditional use. The highest densities in the classification should be located closest to village centers, where public water and sewer facilities can be provided most efficiently. Residential development should provide for a variety of dwelling types and for the needs of people of all income levels and ages.

High Density Residential (H.D.)

This district of high residential density consists of the locations within the Town where it is desired that development occur which can accommodate the majority of the population growth in Highgate. These districts have been selected because of existing settlements, anticipated patterns, existing and future public facilities and services, suitable soils and other physical characteristics. The development of these districts with urban uses affords the best opportunity for the existing and future provision of economically feasible public facilities and services while providing an orderly separation of these uses from other legitimate land uses within the Town. High Density Residential, commercial and many public and quasi-public facilities and services are intended to develop in these districts. This provides for the highest level of access to shopping for persons living in a multifamily housing environment, i.e. senior housing complexes. This district also provides the more concentrated forms of commercial use in village centers and restricts the tendency toward roadway "strip" development.

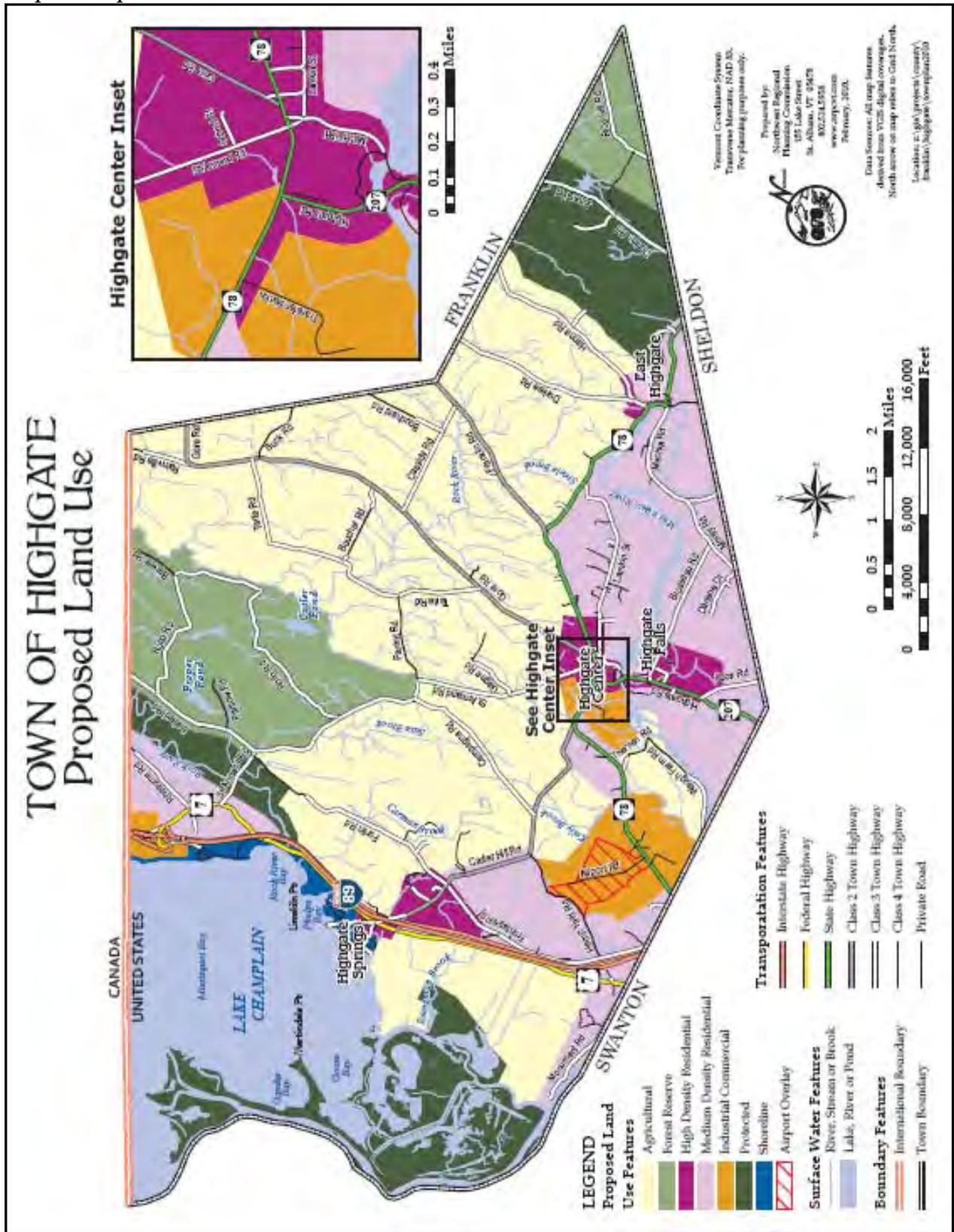
Industrial/Commercial (I/C)

This district is intended to afford the opportunities of increased municipal tax base and employment opportunities in manufacturing, warehousing, and service functions for the citizens of Highgate and the entire region. It enables commercial uses that specifically serve the industries or their employers. The district needs to be serviced by good transportation facilities and public utilities. Single family dwellings and duplexes have been approved as conditional uses in this district. To service the industrial potential, Highgate may consider developing and maintaining adequate water supply, sewage disposal facilities, and roads for this district.

Shoreline (S.L.)

The shoreline district in Highgate is shoreland along Missisquoi Bay. The purpose of the Shoreline District is to provide management policies reasonably consistent with existing development and use, to provide for the beneficial use of public waters by the general public, to provide a balance between the bay resource and bay uses including the protection of habitat and water quality, and to protect areas unsuitable for development. New residential development within this shoreline district should protect public access to the bay, be compatible with the visual quality of the area, protect existing vegetation, and not cause any water pollution problems. Outdoor recreation uses are encouraged. Expanding or new commercial development should not be permitted.

Map 8.3 Proposed Land Use Districts



Protected Areas (P.A.)

Protected areas are so designated to control development in unique and irreplaceable areas of natural beauty, where shallow soils, steep slopes, fragile vegetation, wetlands, or wildlife habitat may occur. Areas providing significant recharge to the ground and surface water supplies lie in this district. Because of the fragile resources and limitations to development, no community facilities and services (water and sewer) are provided to these areas. Limited compatible land uses could be permitted in this district, such as outdoor recreational activities that do not involve large structures and forestry that does not create erosion problems or harm unique and fragile areas.

Forest Reserve (F.R.)

The purpose of the Forest Reserve District is to protect the natural resource value of a portion of Highgate that is essentially undeveloped, lacks direct access to arterial and collector roads, is important for wildlife and wildlife habitat, has potential for commercial forestry use, has one or more physical limitations to development, and includes significant natural, recreational, or scenic resources. Class III roads in the district are to be maintained but no Class IV roads are to be upgraded for at least the next five years. No further facilities or services should be considered for this district other than what has already been planned or established. This limits the residential development to only what can be accommodated by existing infrastructure. Outdoor recreational uses, conservation uses and forestry practices that are compatible with the district purposes and do not require additional facilities and services are permitted.

Airport Overlay (A.O.)

The purpose of the Airport Overlay District is to limit the height of objects in the vicinity of the Franklin County Airport and to prevent their interference with safe and efficient operations of the airport. In addition, the district is created to encourage and enhance the ability to establish associated industry and commercial uses as appropriate, and in conformance with the Airport Master Plan completed by the State of Vermont.

Flood Plain (F.P.)

The Flood Plain District is the area delineated on the Flood Insurance Rate Map for the Town of Highgate by the Federal Emergency Management Agency (FEMA). The requirements of this district are promulgated to minimize and prevent the loss of life and property, the disruption of commerce, the impairment of the tax base, and all extraordinary public expenditures required following flood disasters. Establishment of this zone is also meant to ensure that the design and construction of development in special flood hazard areas is accomplished in a manner that minimizes or eliminates the potential for flood damage. This district is to be administered according to the National Flood Insurance Program (NFIP), which is required for community eligibility in the NFIP and thereby ensures availability of flood insurance to property owners.

CHAPTER 9

Neighboring Communities and the Region

The Town of Highgate is a community located in the northwestern part of Franklin County on the Missisquoi Bay of Lake Champlain. Highgate adjoins the towns of Swanton to the southwest, and Sheldon to the southeast, Franklin to the east, and Quebec, Canada to the north.

Highgate has experienced substantial growth since 1980 as compared to its surrounding communities. As Table 9.1 shows, Highgate had the highest percentage of growth among surrounding towns in the northwestern part of Franklin County.

Town	1980	1990	2000	2007 est.	% change
Highgate	2,493	3,020	3,397	3,666	+47.05%
Swanton Town	5,141	5,636	6,203	6,418	+24.84%
Sheldon	1,618	1,748	1,990	2,288	+41.41%
Franklin	1,006	1,068	1,268	1,307	+26.00%
Franklin County	34,788	39,980	45,417	47,830	+37.49%

Source: 1980, 1990, 2000 US Census; 2007 est. CRS Indicators Online

The towns of Highgate, Swanton, Sheldon, and Franklin all have similar types of land use districts. Although the districts may be referred to with different names in each town, they all strive toward the same purpose. The following comparisons describe each town’s land use districts, including their purpose and some general characteristics of each town as compared to Highgate.

A COMPARISON WITH THE TOWN OF SWANTON

The Town of Swanton is located to the southwest of Highgate. These two towns share several natural features including Lake Champlain, the Missisquoi National Wildlife Refuge, and the Missisquoi River. Highgate and Swanton are connected by both Vermont Routes 7 and 78, Vermont State Highway 207, and by Interstate 89. The inactive Lamoille Valley Railroad, which is in the process of being converted to a multi-use recreation trail, also links these two towns together. Highgate is home to the Missisquoi Valley Union High School, which is located just north of the Swanton town line off Route 78. The school provides educational services to residents of Highgate, Swanton, and other surrounding towns for students in grades seven through twelve. Highgate is also home to the Franklin County Airport, which is used by residents in all of its surrounding communities. Land use patterns for both towns are generally compatible except for some potential conflicts on the Route 78 corridor, which crosses through both towns. Highgate has made the area that surrounds the high school a district of mid-density residential development, adjacent to the district for commercial and industrial uses Swanton has made the area that borders Highgate’s Industrial District part of its Moderate Density Residential District. Swanton has proposed the following land use districts:

Shoreland Recreation District (SR)

- The purpose of this area is to provide for the significant seasonal recreation industry that has evolved along the shoreline of Lake Champlain.

Shoreland/River District (S2)

- This area is intended to allow residential and seasonal recreational uses adjacent to the Lake Champlain shoreline in a manner that protects surface and ground water quality and shoreland vegetation, minimizes adverse impacts to the lakeshore environment, limits encroachments into public waters, and preserves both visual and physical access to and from the lake.

Recreation/Conservation District (RC)

- This area is established to protect and to conserve the unique wetlands, floodplains, wildlife areas, and natural and archaeological sensitive areas of Swanton.

Agricultural Residential District (Low Density) (R1)

- Agriculture should be the dominant land use in this area and residential development should be limited.

Residential District (Moderate Density) (R3)

- These areas have soils suitable for on-site septic and the areas have good access to services.
- Planned unit developments that cluster dwelling units should be allowed.

Residential District (High Density) (R5)

- These areas are proposed to contain relatively high densities of residential development.

Central Business District (CB)

- This area includes a variety of municipal, professional, business, and retail uses.
- A mixture of business uses should be maintained and encouraged.

Neighborhood Commercial District (NC)

- The purpose of this area is to provide support services to the nearby industrial park and to the travelers on Rt. 78.

Neighborhood Commercial Light District (NCL)

- The purpose of this area is to encourage uses that strengthen the area aesthetically and to provide limited services to nearby neighborhoods.
- Clustering should be encouraged.

Commercial/Light Industrial District (CLI)

- These areas are intended to serve as transition districts between the Industrial District and the nearby Residential Districts. These areas allow for a range of light industrial and commercial uses.

Industrial District (IND)

- These areas should be serviced by sewer and water.
- Appropriate setbacks to buffer industrial activities from residential uses, the Missisquoi River, and major right-of-ways should be observed.

A COMPARISON WITH THE TOWN OF SHELDON

The Town of Sheldon is located to the southeast of Highgate. Vermont Route 78 and the Missisquoi River connect these two towns. The inactive Lamoille Valley Railroad, which is in the process of being converted to a multi-use recreation trail, also runs between them. The border area between Highgate and Sheldon is predominantly made up of mixed woods; however, there is also some cleared farmland. The western border has soils that experience ponding or have moderate to severe limitations related to soil wetness. The eastern border is comprised of areas where bedrock is near the soil surface. Highgate's Medium Density Residential, Protected Area, and Forest Reserve Districts border Sheldon's Rural Lands II District and Rural Lands I District, which buffer all Town and State highways. There are no potential land use conflicts along the Highgate/Sheldon border.

The Town of Sheldon has their land divided up into six different districts, which are the following:

Village District

- The purpose of this district is to maintain the village of Sheldon Springs as a residential and commercial center. Municipal water and sewer disposal are available, and development on small lots is encouraged to take advantage of these services, as well as to maintain the traditional pattern of development.

Industrial District

- The purpose of this district is to set aside land for future industrial development in an area with good highway access and potential for municipal water and sewage disposal.

Rural Lands I

- The purpose of this district is to provide opportunities for low-density rural development. It is comprised of all land that is no more than 800 feet from the center of all Class I, II, and III roads, which are not designated as village or industrial.

Rural Lands II

- Rural Lands II contains those areas within Sheldon that are most remote and are not needed to meet housing or other intensive development needs over the planning period. These lands have especially high resource values easily jeopardized by urban or suburban development.

Flood Hazard District

- The purpose of this district is to prevent development which might increase flooding, and to reduce losses as a result of damage from flooding.

Wellhead Protection Overlay District

- This district will be superimposed over the districts listed above - this will help protect Sheldon's public water supplies.

A COMPARISON WITH THE TOWN OF FRANKLIN

The Town of Franklin is located to the east of Highgate. Various Class II and Class III town highways connect these two towns. Their border is generally comprised of two different types of land cover, including land that has been cleared for farming and land that is forested. Most of the soils along the border are considered “prime agricultural soils”; however, there is a wetland area along a small portion of their southeastern border. Highgate’s Agricultural, Protected Area, and Forest Reserve Districts border Franklin’s Rural Residential/Agricultural District. In addition, two areas designated as Franklin’s Conservation District’s correspond to Highgate’s Protected Area and Forest Reserve Districts. There are no potential land use conflicts along this border.

Residents and visitors in each town have access to a local lake. Lake Carmi, approximately 1,375 acres in size, is located in Franklin, while Highgate borders Vermont's largest lake, Lake Champlain. Although Lake Carmi is much smaller than Lake Champlain, it is still considered one of the bigger lakes in the State of Vermont.

The Town of Franklin divides its land use into five different districts: the Village District, Rural Lands District, Rural/Agricultural District, Conservation District, and the Flood Hazard District. They are defined as the following:

Village District

- The purpose of this district is to affirm Franklin’s commitment to its existing historical centers by accommodating intensive, high-density residential and commercial development.

Rural Lands District

- purpose is to accommodate sufficient low-density rural development

Rural Residential/Agricultural District

- The purpose is to accommodate sufficient low-density rural development to meet housing needs over the next five years.

Conservation District

- The purpose is to protect lands, which because of their location, topography, and soil limitations make them unsuitable for development.

Flood Hazard District

- The purpose of this district is to prevent land development which would increase flooding, and to reduce losses as a result of damage from flooding

NORTHWEST REGIONAL PLAN

The Town of Highgate participates in the Northwest Regional Planning Commission (NRPC). The Planning Commission gives technical assistance to the Town on a variety of planning issues, including seeking out grants for funding on local projects, updating the Town Plan, and zoning bylaws, and other issues of regional significance. All municipalities in Franklin and Grand Isle Counties are members of the NRPC and have representation on the Board of Commissioners. Highgate is regularly represented at all Board meetings, and participates in many of the planning efforts taking place in the region.

The Northwest Regional Plan was adopted by the Board of Regional Commissioners on August 29, 2007 and became effective October 3, 2007. The Regional Plan went through in-depth revisions of several chapters, including the land use chapter during the most recent update. The Plan expires in 2012 when it will be updated and revised once again.

None of the goals, objectives, or recommendations in the Highgate Town Plan will adversely affect the plans or development trends of the neighboring communities or the region. Highgate will continue to work with neighboring municipalities when implementing this Plan to ensure its compatibility within the region.

CHAPTER 10

Recommendations for Implementing the Plan

In order to have an effective Town Plan, it is essential that the recommendations contained within it be implemented. Implementation takes many forms, from amending bylaws and Town ordinances to working with community groups and organizations on new projects. It is important to periodically review the Plan to prioritize implementation steps and to ensure that all recommendations are being considered. In addition, the Town should work to develop a timeline for implementing the goals of the Plan. Although the Plan is set in a five-year time frame, many of the goals are long-term, and require continuous effort.

ZONING BYLAWS AND SUBDIVISION REGULATIONS

The Highgate Zoning By-laws and Subdivision Regulations were updated and adopted on November 16, 2007. It is important to review these regulations every few years in light of the goals, objectives, and recommendations in this Plan. Many suggested changes have been outlined. The Planning Commission will need to work with the Select Board and Town residents to ensure that these changes are made in a manner that is acceptable to the Town as a whole.

Because of the considerable amount of work involved in local planning and zoning, the Town should consider establishing a Development Review Board to handle applications for permits. This would allow the planning commission to work on planning issues that are often put aside because of the heavy workload.

RECOMMENDATIONS

1. Continue to review, revise, and update the Highgate Zoning Bylaws and the Highgate Subdivision Regulations every five years to bring them into conformity with all Vermont State Statutes, to reflect current conditions and circumstances, and all applicable goals and objectives contained in this Town Plan.
2. Review the commercial uses allowed as conditional uses in the Zoning Bylaws and Subdivision Regulations.

PUBLIC FUNDS

The rate of growth in Highgate should not exceed the ability of the community to provide services. Several chapters in the Plan note the increasing need to provide more public services to a growing community. In order to monitor the rising cost of facilities and services due to growth and the impact of such growth, the Town created a Capital Budget Program. A Capital Budget Program schedules a reasonable rate of growth and budgets capital expenditures for school expansion, road improvements, and other facilities and services to keep pace with that rate. The capital budget also gives the Town the ability to consider enacting an impact fee ordinance to help offset the costs of capital expenditures.

RECOMMENDATIONS

1. Update the Capital Budget Program as needed.
2. Consider developing an impact fee ordinance.

3. Continue to request regional approval of the Highgate Town Plan to make the Town eligible for Municipal Planning Grants and enable the Town to assess impact fees, should they develop them.
4. Continue to review the Community Facility and Services Plan periodically to assess that community needs are being met.
5. Require phasing of all projects, which in the judgment of the Planning Commission, could have a significant affect on the provision of municipal services.

FUTURE STUDIES AND OTHER ACTIONS

Implementing the Plan takes many forms in addition to revising and establishing regulations and programs. For example, several studies have been recommended throughout this Plan. Different groups within the Town will need to take responsibility for these studies to ensure their completion. Specific studies recommended include:

1. Follow up on the study, Water Supply Needs and Analysis (2002) done to determine local response to a municipal water and sewer system (Chapter 6).
2. Create a list of Town historic sites including, but not limited to buildings, farm-scapes, archeological and other historic sites, and features that contribute to the identity of the Town and the broad patterns of its history (Chapter 3).
3. Begin the project of mapping the Town's cemeteries.
4. Complete a natural resource inventory and a study of preservation strategies for the Town's Protected Area and Forest Reserve Districts.
5. Complete an access management plan for the Town.

This Plan also recommends the participation in many organizations, programs, and studies that will benefit the Town. The Planning Commission will work with the Select Board to determine how the Town should best participate.

Recommended participation includes:

1. Continue to participate in regional planning efforts including transportation planning.
2. Continue to work with neighboring communities throughout Plan implementation.

The goals, policies, and other information contained in this Plan will also be used to participate in statewide regulatory proceedings such as Act 250 and Public Service Board (Section 248) applications.