

**Report to accompany proposed Municipal Plan
for Cambridge Town and Cambridge Village
2018-2026**

Memo to: Adjacent Municipalities, Department of Housing and Community Development, LCPC

From: Cambridge Planning Commission

Date: July 16, 2018

Re: Planning Commission Report & Solicitation for Comments

Cambridge Planning Commission has drafted a municipal plan for consideration by the Cambridge Selectboard and Cambridge Village Trustees to guide development from 2018-2026. The proposed plan is consistent with the goals established in section 4302 of V.S.A. Title 24, Chapter 117. The proposal does not alter the designation of any land area.

A public hearing is scheduled for August 20, 2018 at 7:00 p.m. to hear public comments on the proposed plan.

If there are any questions or comments with respect to the plan or this report, please contact Michael Moser, Cambridge Planning Commission Chair at Michael.Moser@uvm.edu

NOTICE OF PUBLIC HEARING

Cambridge Planning Commission hereby provides notice of a public hearing being held pursuant to 24 VSA §4384 (Preparation of Plans) and §4444 (Public Hearing Notice) for the purpose of hearing public comments concerning the proposed Town and Village of Cambridge Municipal Development Plan (2018-26).

The hearing will be held:

DATE: August 20, 2018 at 7:00 P.M.

LOCATION: Cambridge Town Clerk's Office

Statement of Purpose: The public hearing is being held to solicit public comments regarding proposed municipal development plan for Cambridge Town and Cambridge Village.

Geographic Area Affected: This Plan shall apply to all areas in Cambridge Town and Cambridge Village.

Table of Contents:

Introduction, Community Profile, Economic Development, Natural Resources, Agricultural and Forest Resources, Community Facilities and Services, Education, Transportation, Housing, Energy, Historic Scenic and Archaeological Resources, Land Use.

Location where full text may be examined:

Copies of the proposed Plan can be found at the Cambridge Town Clerk's Office and at www.townofcambridgevt.org

2018 Cambridge Town Plan

Adopted by Cambridge Town Selectboard: XXXX
Adopted by the Cambridge Village Trustees: XXXX
Regionally Approved: XXXX

Plan Expires: XXXX

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Introduction

The Town of Cambridge recognizes that growth and development are inevitable and that with careful planning they can be in harmony with present land uses. It is the basic goal of this Plan to maintain the blend of residential, rural, business, and recreational elements that have led to the character of our present community.

Growth and development must be planned and managed, so they do not put an undue burden on the ability of the Town to provide municipal services. The community recognizes its responsibility to respect the property rights of individual landowners. At the same time, the Town is obligated to protect public health and safety, be fiscally responsible, and safeguard the long-term interests of the community.

Our agricultural and resource-based economy must be maintained while allowing our tourist, recreational, and business economy to expand, as needed, to broaden the tax base, and to provide jobs for our citizens. Growth and development that provide employment within the Town should be encouraged to reduce traffic, conserve energy, and preserve a sense of community--a sense which can be difficult to maintain in a bedroom/resort community. The Town must be sensitive to the need for affordable housing for current residents as well as for businesses seeking to locate here.

Future growth and development must consider the inherent limitations of the land itself and should take place where they are compatible with current land use patterns. Open space and scenic preservation are important to the residents of the community as well as to the tourist economy and will be encouraged.

All these objectives are important to maintain the present character of the Town and provide for orderly growth and development. They will be discussed in greater detail under the appropriate sections of the Plan, which follows.

How this Plan was developed

Much of the 2018 Plan was derived from the prior 2013 Plan. The 2013 Plan was reviewed and updated based on current trends and issues within the community. In revising the Plan, the Planning Commission sought substantial input from the Cambridge community. Local and regional stakeholders and interested parties were invited to participate in discussion of pertinent sections of the Plan. The Planning Commission also reviewed the results of the 2012 Cambridge Jeffersonville Community Infrastructure Survey. Finally, the Planning Commission reviewed and considered the findings of a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis conducted with Cambridge/Jeffersonville Village business owners in the winter of 2012.

History of Cambridge's planning efforts

Formal planning in Cambridge dates to 1963 Cambridge, when the Town appointed a "zoning commission." The Planning Commission was established in 1968 through a vote at Town Meeting. The first Plan for the Town of Cambridge, the Village of Cambridge, and the Village of Jeffersonville was likely adopted by the Selectboard on December 18, 1972 (although it could not be confirmed in town records). Development in Cambridge Town and Village is currently governed by Flood Hazard Area Bylaws and Subdivision Regulations. Several attempts to adopt Zoning Regulations have been defeated through town wide votes.

Uses of a Municipal Plan

Towns are not required to adopt municipal plans, so the question is sometimes asked – why spend the time and effort to write a town plan? There is a range of ways in which a town plan can be used - from simply a source of information to a foundation for regulations. Ultimately, the residents of Cambridge determine how

the Cambridge Municipal Plan will be used and whether it will be effective. Among the potential uses of the Municipal Plan are the following:

1. A source of information: The Plan is a valuable source of information for local boards, commissions, citizens, and businesses. The information in the Plan could serve to familiarize residents, potential residents, and development interests about Cambridge and its resources.
2. A basis for community programs and decision-making: The Plan serves as a common vision for the community. The planning process provides an opportunity for Cambridge residents to discuss their future hopes for the community. The Objectives and Policies found within the Plan can be used to guide community decisions. For example, the Plan is a guide for the recommendations contained in a capital budget and program, for any proposed community development program, and for the direction and content of local initiatives such as farmland protection, recreation planning, and housing.
3. A source for planning studies: Few Plans can address every issue in sufficient detail. Town Plans not only record and discuss what is known about the resources and residents of the town but also what is not known. Therefore, many Plans will recommend further studies to develop courses of action on specific needs.
4. A standard for review at the State and regional levels: The Municipal Plan provides an opportunity for local concerns to be addressed in State-level decision making. Act 250, the Section 248 Public Utility Commission process, and other State regulatory processes identify the Municipal Plan as a standard for review of applications. Municipal Plans are important to the development of regional plans and regional and inter-municipal programs. In addition, State proposals must comply with Town Plans. This includes the purchase and management of State land for parks and recreation. While the Town, Village, and local residents may have the opportunity to provide comments in these decision making processes, under State law, these comments are given greater weight when backed up by clearly stated policies found in the Local Plan.
5. A long-term guide: The Plan is a long-term guide by which to measure and evaluate public and private proposals that affect the physical, social, and economic environment of the community.
6. To fulfill an eligibility requirement for State and Federal grants: In 2000, the State began requiring towns to adopt Plans for communities to be eligible for most grants and low interest loans. Planning grants, water and wastewater grants, community development grants, historic preservation grants, Village Center tax credits, and other key sources of funding all now require the municipality to have an adopted Plan. While many private funding sources do not require Town Plans to be eligible, having a Town Plan that documents the need for funding will generally strengthen the application.
7. A basis for regulatory action: The Plan can serve as a foundation and guide for the creation of zoning regulations, subdivision regulations, official maps, shore land bylaws, and flood hazard bylaws and for the decisions made under these regulations.

This Plan has been developed with the following Fundamental Themes and Objectives:

- Development and change in Cambridge is inevitable and is likely to continue because of trends in Vermont, the United States, and the rest of the world.
- This Plan recognizes that diverse housing, employment, civic, and recreational opportunities are essential for the future health of the community. The Plan seeks to manage and direct growth in ways that preserve Cambridge's rural, agricultural character and quality of life while preserving the property rights of the town's landowners.

- Greater collaboration between the various municipal boards serving Cambridge residents, as well as other public and private organizations active within the community, is essential to ensure that adequate public services and infrastructure are available to serve the needs of Cambridge's growing population.
- Retaining/increasing the amount of land utilized for agricultural purposes by removing or minimizing financial obstacles to agricultural land uses. This goal should be accompanied by all practicable methods including, without limitation:
 - Allowing for the diversification and development of new agricultural enterprises.
 - Encouraging the purchase of development rights.
 - Ensuring that no town regulatory hurdles are erected to agricultural land uses.
 - Clearly and emphatically stating the town's preference for agricultural uses.
- Maintaining the rural character of Cambridge to the greatest extent possible consistent with private property rights. Mechanisms for attaining this goal should include, without limitation:
 - Encouraging development to be directed towards the Villages and Growth Areas defined in the Land Use Section of this Plan.
 - Discouraging scattered development patterns on open land by encouraging clustering in development projects.
- Encouraging the preservation of scenic areas for economic (tourism) as well as local (aesthetic) reasons.
- Both regulatory and non-regulatory tools can be used to meet the objectives of this Plan. When possible, preference will be given to non-regulatory tools. If regulatory tools, such as bylaws, are adopted, the permitting process must be predictable and efficient and must contain clear, unambiguous standards to ensure that all residents receive fair and equal treatment.

How this Plan is Organized

Each chapter of this Plan outlines the Objectives, Policies, and Actions for that chapter that will form the basis for decisions over the next eight years.

Community Profile

Geography

The Town of Cambridge covers an area of approximately 40,637 acres (63.5 square miles) on the western side of Lamoille County. The northern edge of Mount Mansfield, Vermont's highest peak, lies to the south, and the Lamoille River, Vermont's third longest waterway, traverses the northern third of the Town from east to west. Cambridge is notable for having the greatest change in elevation of any town in Vermont, since the Town includes both Mount Mansfield and the Lamoille River Valley. A variety of physical environments exist throughout the community. There are villages, farms, and forestland from the agriculturally rich bottomland along the Lamoille River to the thin, stony soil in the high elevations on the northern slope of Mount Mansfield.

History and Development

Cambridge was chartered in August 1781 and organized in March 1785. Within the Town lie two incorporated villages - Jeffersonville and Cambridge Village. These villages function as the commercial centers of the community and serve as locations for community services and higher density residential development.

From the establishment of the Town in the late 18th century until after World War II, the economic base of the community was primarily agriculture, forestry, and related industries. In 1960 social and economic forces outside the community led to rapid growth and development and changed the economic focus of the Town.

The development of the ski industry in the Town led to the establishment in 1973 of a village and year-round resort community, Smuggler's Notch Resort, adjacent to the Mount Mansfield State Forest.

Municipal Government Structure

The governing of the Town of Cambridge is conducted by five elected members of the Selectboard (the Town's legislative body). Located within the Town of Cambridge there are two chartered Villages, the Village of Cambridge and the Village of Jeffersonville. Each of the Villages has its own elected boards, the "Board of Trustees." The Cambridge Village Trustees are primarily responsible for management of the Cambridge Village Water System and other public infrastructure in Cambridge Village (excluding roads). Cambridge Town and Village share a Municipal Plan and Planning Commission. The Jeffersonville Village Trustees are responsible for management of most of the public infrastructure in Jeffersonville Village (excluding roads). In addition, Jeffersonville maintains an independent Planning Commission and Municipal Plan. As a result, Jeffersonville may adopt land use regulations independently from the Town of Cambridge and is not subject to land use regulations adopted by Cambridge.

For matters concerning the School Districts (Lamoille Union School District and Cambridge Elementary School District), there are two elected boards; the Board of Grade School Directors and the Board of Union School Directors (see the Education Section for further information on these Boards).

There are several other elected and appointed positions important to the running of the Town, such as the Town Clerk, Auditors, Listers, and the Planning Commission. See the most recent Town Report for a complete listing of the currently elected and appointed members of the Town's Boards, Trustees, and Commissions.

Demographic Profile

In 2010, the US Census revised the data collected for the Census, eliminating many categories. Eliminated categories can now be found in the American Community Survey, an ongoing survey that provides data for several social and economic categories. Notations have been made where the data is different between the

2008 and 2013 plans. Additional information, including quick tables and detailed data tables, can be found at <http://census.gov>

Resident Population

Population Growth

According to the 2010 Census, Cambridge has a population of 3,659. This represents a 15% increase from 2000--one of the fastest growth rates of the ten Lamoille County towns and well above the county rate of 5.3%. Since 1990, Cambridge's population has increased 37%.

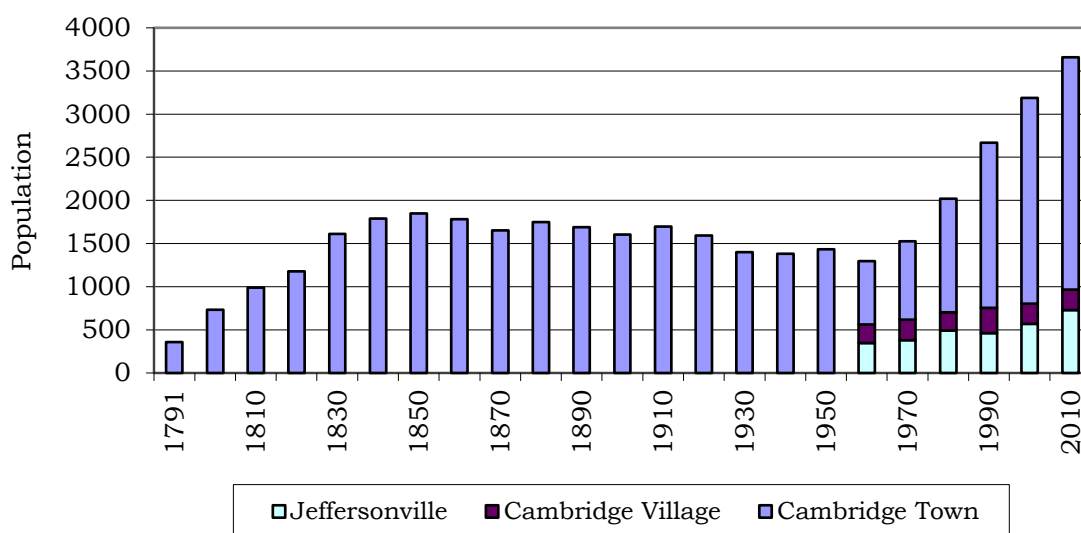
Since 1791, Cambridge has experienced three distinct periods of population change--rapid population growth between 1791 and 1850; slow population decline between 1850 and 1960; and since 1960 rapid population growth at an even faster rate than during the initial period (see Figure 1).

In 1960 the population of Cambridge was 1,295, and about 43% lived in the villages. The Town's population increased to 1,528 in 1970, 2,019 in 1980, and 2,667 in 1990 before reaching 3,186 in 2000. At the time of the latest Census, the villages only constituted 26% of the overall population (see Figure 1).

In comparison with the Town population, the Village of Cambridge population has remained static for the last 40 years. The total population of Cambridge Village in 1960 was 217, and by 2010 it had increased to 236. In between, the population rose as high as 292 in 1990 and was as low as 211 in 1980. During 1970 the population was the same as it was in 2000; 235 persons (see Figure 1).

The Village of Jeffersonville has seen modest population growth within its boundaries. In 1960 the population was 346; increased to 382 in 1970 and to 491 in 1980 before declining to 462 in the 1990 census. By the 2010 count, the population had grown to 729. Jeffersonville's population growth has climbed exponentially, 28% from 2000 (568) to 2010 (729).

Figure 1. Population of Cambridge 1791-2010



Source: U.S. Census Bureau

Factors affecting population growth

Population change is the result of two sets of factors – natural increase and net migration. The population change shown on Table 1 is the difference between Census counts. Population dropped between 1950 and 1960 but increased during each of the past four decades. The population had its greatest increase during the 1980s when the population grew by 648 persons.

Table 1. Changes in population between Census counts from 1950-2010.

Period	Change in population	Percent change
1950-1960	- 140	- 9.8 %
1960-1970	+ 233	+ 18.0 %
1970-1980	+ 491	+ 32.1 %
1980-1990	+ 648	+ 32.1 %
1990-2000	+ 519	+ 19.5 %
2000-2010	+ 473	+ 14.8%

Source: US Census (1950-2010)

Table 2 compares population growth in Cambridge over the last decade with population growth in surrounding Towns, Lamoille County, and the State of Vermont. As this table demonstrates, Cambridge has grown at a faster rate than most of its neighbors (except for Fairfax, as well as Lamoille County and the State of Vermont).

Table 2. Population Change since 2000 for Cambridge and Neighboring Towns.

Town	2000 Population	2010 Population	% Change in Population
Cambridge	3,186	3,659	14.8
Fairfax	3,527	4,285	21.5
Fletcher	1,179	1,277	8.3
Johnson	3,274	3,446	5.3
Morristown	5,139	5,227	1.7
Stowe	4,339	4,314	-.6
Underhill	2,980	3,016	1.2
Waterville	697	673	-3.4
Westford	2,086	2,029	-2.7
Lamoille County	23,233	24,475	5.3
State of Vermont	608,827	625,741	2.8

Populations increase ‘naturally’ when more people are born over a certain time period than die. The Vermont Department of Health has kept birth and death statistics for each town since 1857. Table 3 shows the number of recorded births and deaths in the Town of Cambridge in each of the past five decades. One observation of this table is that the growth due to natural causes has been steady with growth around 10% per decade. If this trend were to continue, it would result in moderate population growth in the future.

Table 3. Population change due to natural increase

Period	Births	Deaths	Increase	% pop change by natural increase
1950-1960	NA	NA	142	+ 9.9 %
1960-1970	NA	NA	123	+ 9.5 %
1970-1980	300	170	130	+ 8.5 %
1980-1990	424	153	271	+ 13.4 %

1990-2000	472	162	310	+ 11.6 %
2000-2010	566	201	365	+ 9.9%

Source: Vermont Department of Health Vital Statistics (1950-2010)

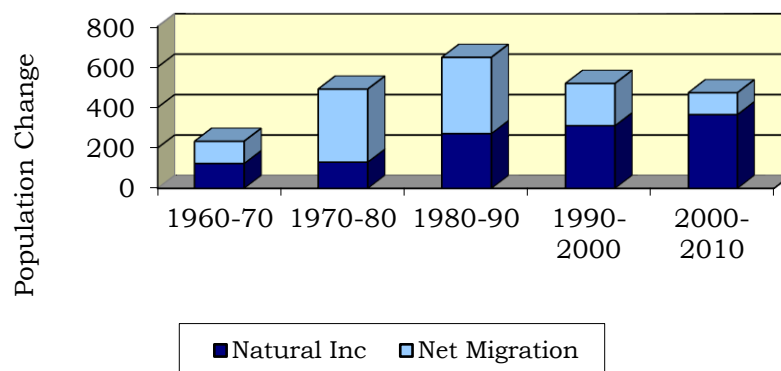
Net migration is the second factor affecting population change. This information is determined by subtracting the natural increase from the total change in population. For example, it is known from Census data that there was an increase of 473 persons in Cambridge between 2000 and 2010 (see Table 1). It was determined that, of the 473 persons, 365 were the result of natural increase (see Table 3) therefore the other 108 were the result of migration (see Table 4).

Table 4. Net migration

Period	Net migration	% population change due to net migration
1950 – 1960	- 282	- 19.7 %
1960 – 1970	+ 110	+ 8.5 %
1970 – 1980	+ 361	+ 23.6 %
1980 – 1990	+ 377	+ 18.7 %
1990 – 2000	+ 209	+ 7.8 %
2000 - 2010	+ 108	+4.9 %

Unlike natural increase, net migration has varied greatly. During the 1950s, 282 more people moved out of town than moved in resulting in a population drop of close to 20%. By comparison, 377 more people moved into town in the 1980s. The 1970s experienced the highest percentage gain in population from migration. The trend has been slowing over the past two decades although still making a significant contribution to the population growth in town. If the current migration rates continue to slow, the population will grow at a moderate rate. There are many social and economic factors that could affect migration rates over the next decade, including how well Chittenden County addresses their housing problems. If the County fails to address the issues, this will place additional pressures on towns like Cambridge that are within a commutable distance from Essex, Milton, and Burlington.

Figure 2. Components of Population Change



Source: U.S. Census Bureau

Over the past twenty years, the increase in population has been split evenly between natural increase and migration. Since 1980, the population has increased by 1167 persons, of which there was a natural increase of 581 persons and a net migration of 586 persons. The difference between the factors is that the natural increase has been steady while the net migration is slowing (see figure 2).

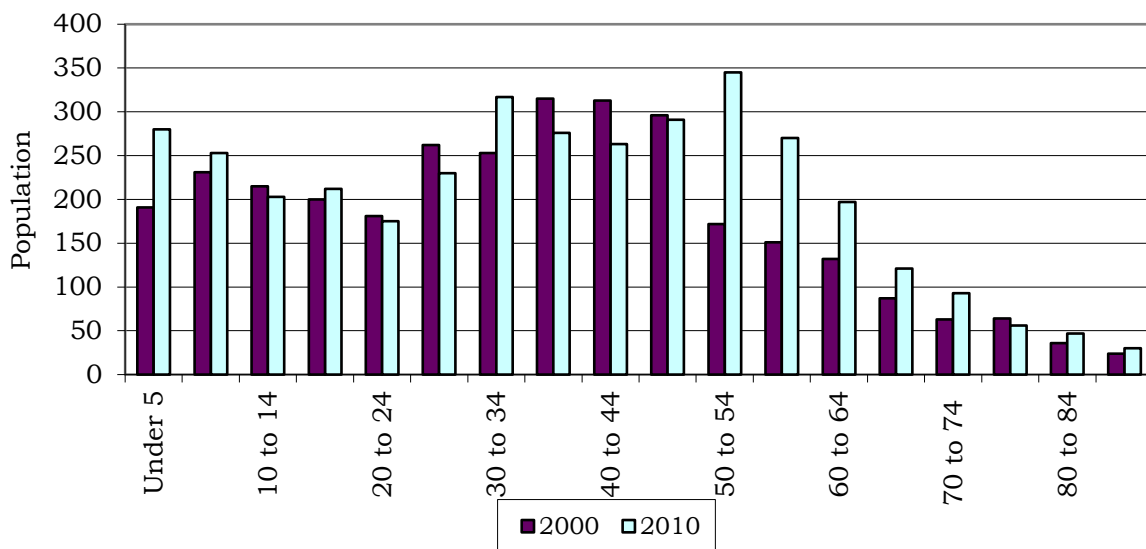
Age Distribution

From 2000 to 2010, the proportion of the population in the 50-55-year-old age groups increased more than any other age group (see Figure 3). This trend continued in retired age groups as well but not to the degree found in the 'baby boomer' age groups. As the population has been increasing, the number of young people from age 9 to 24 has remained about the same. The number of young children under 5 has increased quite a bit from 2000. With the aging of the Cambridge population, the Town may need to review services to ensure that the needs of an ever increasingly older population are met.

As expected from Figure 3, the median age in Cambridge increased considerably. In 1970 the median age was 28.2. This has increased with each census (1980- 29.3; 1990- 31.7) until 2010 when the median age reached 37.9.

Another figure typically examined with age groups is the percentage of individuals under 18 and over 65. These age groups, especially under 18 years of age, require more services than individuals in their working years. The lower the percentage of youths and seniors, the easier it is to afford to provide services. Examining figures, again back to 1970, Cambridge is in a much better position to provide for our youths and seniors than at any other time. In 1970, over half of the population was either under 18 or over the age of 65 (36.9% and 13.4% respectively). At the time of the 1980 and 1990 census the percentage of youths decreased and then remained steady at 29.9% and 29.4% while the over 65 group decreased to 10.4% in 1980 and to 7.9% of the population in 1990. By 2000, the overall percent of the population in these two categories decreased to less than one third. In 2010, the under 18 age group fell to 25.9 percent although the over 65 has begun to increase again and is now 9.4% of the population.

Figure 3. Population by age groups in Cambridge 2000-2010



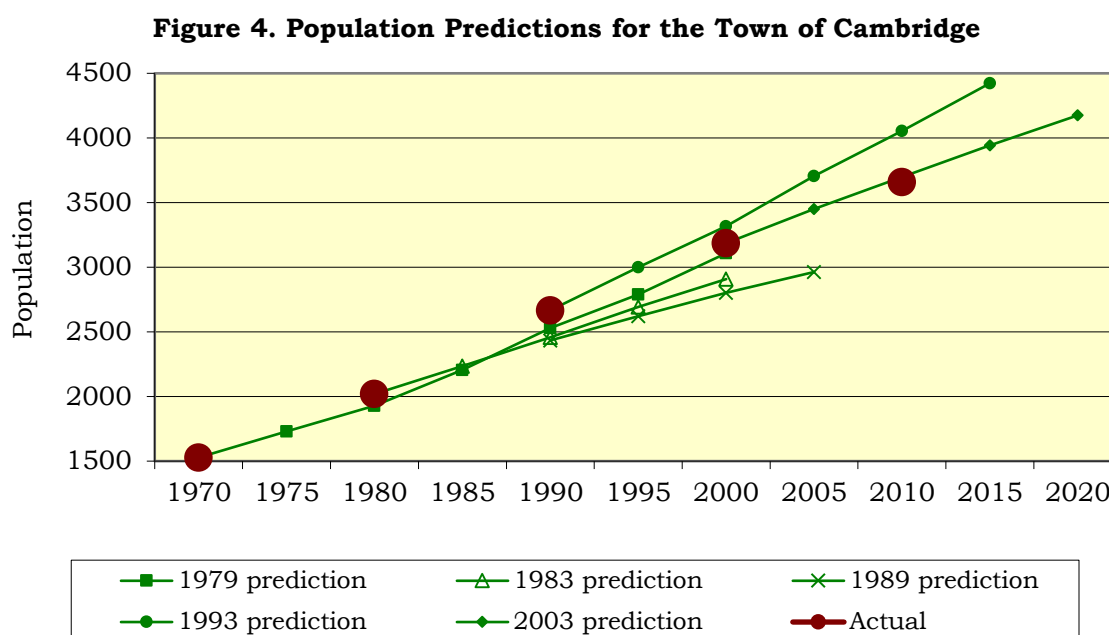
Source: U.S. Census Bureau

Population Predictions

Various agencies in State government periodically make future population predictions using complex models that rely on some of the information discussed above (age distribution, migration rates, birth and death rates). It should be noted that population projections are expectations of what might occur. As with any prediction, the accuracy depends on the validity of its underlying assumptions. While imprecise, they can give an idea of where the overall population may be heading.

Since 1970 there have been four official population forecasts. An early prediction from 1979 was for Cambridge to grow at a moderately rapid rate and have 3,108 residents by the year 2000 (see Figure 4). This 1979 prediction, incidentally, turned out to be the most accurate as the actual 2000 figure was 3,186. In 1983 the predicted growth rate was adjusted down and expected 2,908 persons by 2000. Just before the 1990 Census the State released another prediction and again adjusted the predicted growth rate down. This prediction expected 2,801 persons in 2000.

The next population projections were from the Vermont Health Care Authority (1993) and predicted a growth rate of 24.4% between 1990 and 2000 (Figure 4). This prediction turned out to be too high with the predicted population by year 2000 to be 3,318 (132 persons too high). This same prediction projected populations out to 2015 as well. The final set of predictions from the State was released in 2003 and forecasts Cambridge's population out to 2020. These estimate a 16% growth rate for the first ten years and a 13% growth rate for the second ten years. This prediction expects Cambridge to have 4,000 residents by the year 2016 and 4,175 by 2020. This would represent a 31% increase in population from 2000.



Sources: The People Book – Vermont Population Projections 1980-2000 (Vermont State Planning Office 1979)

Vermont Population Projections 1985-2000 (Vermont Department of Health 1983); Vermont Population Projections 1990-2005 (Office of Policy Research and Coordination 1989); Vermont Population Projections 1990-2015 (Vermont Health Care Authority 1993); MISER Population Predictions for Vermont, 2000-2020 (Stefan Rayer 2003).

Comparing the actual 2000 Census figures to the earlier predictions it can be concluded that the State has generally been in the range for population growth in Cambridge. The next set of predictions from the State, developed in 2003, forecast Cambridge's population out to 2020. The lesson to be learned here is that, when viewing the new population forecasts, it should be kept in mind that the State predictions have only been close over the past 20 years with regards to Cambridge.

Education

Comparing the 2000 Census and 2010 American Community Survey (ACS), Cambridge continues to increase the level of educational attainment. Already above the County averages in 1990, Cambridge increased the

percentage of residents with a high school diploma or higher from 87.4% to 91.2% of all residents over the age of 25. This percentage again increased in 2010 to 97.1%. The percentage of residents with at least a bachelor's degree also increased to 39.6% (see Table 5).

Compared to the County and the State, Cambridge had a larger proportion of its population reporting completion of high school. The percentage of residents with a bachelor's degree was above the State average of 33.3% and above the County average of 34.6%.

Table 5. Educational attainment (percent of population over age 25)

	1990	2000	2010	Lamoille County	Vermont
Less than 9 th grade	5.3	3.5	1.6%	2.5%	3.3%
9 th to 12 th grade, no diploma	7.3	5.3	1.3%	5.4%	6.2%
High school graduate	37.1	32.1	34.8%	31.1%	32.0%
Some college, no degree	14.6	19.2	11.8%	17.5%	16.8%
Associate degree	9.4	9.1	10.9%	9.0%	8.4%
Bachelor's degree	18.6	21.9	28.1%	22.8%	20.2%
Graduate or Professional degree	7.8	8.8	11.5%	11.8%	13.1%
% High school grad or higher	87.4	91.2	97.1%	92.2%	90.6%
% Bachelor's degree or higher	26.3	30.7	39.6%	34.6%	33.3%

Source: US Census Bureau

Income and Poverty

The median household income in 2010 for Cambridge was \$61,741- 19% higher than the State average (see Table 6). The Town of Cambridge, Lamoille County, and the State all increased median incomes a similar amount between 1990 and 2000. Residents of the Villages did not fare as well as the Town as a whole. Both of the Villages had median incomes greater than the State and County averages in 1990, but by 2000, and again by 2010, incomes had grown minimally resulting in incomes well below the County and State medians.

The Town of Cambridge has a poverty rate lower than the State and County average-- 8.8% of all residents. Although this is low, the needs of these individuals must be addressed in discussions of housing and employment. One third of those individuals with earnings below the poverty level live in the Villages. According to other figures, a majority of those in poverty (83%) are between 18 and 65 with few seniors or children. Related children make up 17% of those in poverty while another 2.3% are seniors. Of those in poverty, County and State figures both put children at 14%-15% and seniors at 8%. While only speculation, the ski resort may be a contributing factor to the higher than expected 18 to 65 year old poverty rate. Employees of recreational areas, such as ski resorts, tend to be lower salary wage earners or are part time or seasonal workers.

Table 6. Median household income and percent below poverty level.

	1990	2000	2010	% change (1999-2010)	% below poverty 1999	% below poverty, 2010
Town of Cambridge	\$33,413	\$44,950	\$61,741	37.4	5.2	8.8

Vil. of Cambridge	\$31,125	\$31,250	\$38,750	0.24	9.0	12.6
Vil. of Jeffersonville	\$33,011	\$38,333	\$42,917	12.0	6.6	21.7
Lamoille County	\$27,315	\$39,356	\$52,232	32.7	9.6	12.0
State of Vermont	\$29,792	\$40,856	\$51,841	26.9	9.4	11.1

Source: U.S. Census Bureau

Non-Resident Population

Non-resident, or seasonal population, has an important effect on Cambridge. It increases the demand for community facilities and services and at the same time, contributes to the local economy. Reliable non-resident population data is not available; however, 4.5% of housing units in Cambridge are considered “seasonal.” In the future, the assessment of non-resident population data will be important in developing a better understanding of the additional demand for municipal facilities and services.

Job center or bedroom community?

One common way of classifying a community is to determine if it is a “bedroom community,” an “average community,” or a “job center’.” Job centers have more jobs than resident workers or more than two-thirds of the resident workforce is working within their community. Bedroom communities have more than two-thirds of the resident work force leaving town for employment. An average community has is one that qualifies as neither a job center nor a bedroom community. Residents generally discourage becoming a bedroom community as it hampers the development of strong communities. While there are always residents who need to commute to jobs in other towns, when it becomes too prevalent, people become disconnected from their towns and problems can result. For example, finding volunteers for the fire or rescue squads is difficult because most residents are too far away to respond to calls during work.

Based on 1980 and 1990 census information, Cambridge was classified as an average community (see Table 7). Slightly more than 39 %of residents in the workforce were employed in town but above the 33.3% needed for classification as a bedroom community.

By 2000, Cambridge had become classified as a bedroom community. 69.3% of residents in the workforce now leave town for employment in other places. Unfortunately, the data used to develop this table was not collected for the 2010 Census. Data provided by “On-the-Map” (an online mapping service which links Census and employment data) indicates that, as of 2010, only 20% of Cambridge residents were employed in Cambridge. The same data source shows that 24% were employed in Cambridge as of 2002. Since these data sources differ, direct comparisons cannot be made. However, both sources show a trend toward Cambridge residents leaving town for employment. If Cambridge wants to change this trend, there must be an investment in local jobs to give workers the opportunity to stay in the community. This will be explored further in other reports associated with this Town Plan.

Table 7. Factors determining Cambridge’s community rating (1980-2000)

Year	# of local jobs	Resident workforce (RW)	RW employed locally	# of local jobs > RW?	% RW employed locally	Community rating
1980	579	843	331	No	39.2	Average
1990	647	1342	529	No	39.4	Average
2000	1,226	1803	553	No	30.7	Bedroom

Source: U.S. Census 1980-2010

Economic Development: Objectives, Policies & Actions

Objectives:

- Cambridge should support a local economy that provides rewarding employment opportunities.
- Cambridge should support a diverse local and commuting workforce by providing the necessary infrastructure, including public sewer and water, state of the art broadband connectivity, transportation, parking, workforce development, and the development of flexible childcare options.

Policies:

- Cambridge encourages the growth and diversification of the economy, provided the activity is in keeping with the scale and character of the community.
- Cambridge recognizes that small businesses are critical to future economic development in town as they employ many workers. Cambridge, therefore, seeks to promote small business growth in town.
- Cambridge supports economic activity that strengthens the viability of professional services, farm/forestry and related activities, including value added production and manufacturing.
- Cambridge supports protection of its natural resources as an important component to the tourism sector of the economy.
- Cambridge supports regional and local workforce training initiatives to improve economic opportunities for residents.
- Planning for future transportation improvements should take the needs of local business and industry into account.
- Cambridge recognizes the value of its recreation trail system and the trail-based economy. Cambridge supports infrastructure investments that will allow businesses and community members to take full advantage of this opportunity.

• Actions:

- The Cambridge Planning Commission should work with the Selectboard and appropriate state agencies and resources to ensure that residents and businesses have access to state-of-the-art connectivity.
- The Cambridge Planning Commission should develop plans to address barriers to commercial development in town, such as a lack of water, sewer and other infrastructure.
- Cambridge should work with Lamoille Economic Development Corporation (LEDC), the Lamoille County Planning Commission, Lamoille Region Chamber of Commerce, and local businesses to provide local input to regional economic concerns.
- To grow the economy, the Planning Commission should participate in efforts to tie the Lamoille Valley Rail Trail to other trails, Villages, services, parking, and attractions in Cambridge.
- The town should consider combining commissions and boards to avoid redundancy, conflict and to coordinate economic development efforts. In the interim, Cambridge should initiate quarterly meetings between governing boards of the Town and Villages in order to improve collaboration on economic development, planning, and other community issues.

Economic Development Report

The foundation of Cambridge's economy has historically been its resource base. Initially agriculture and forestry dominated the community's economy and over the past 200 years have helped shape the landscape. This working landscape and the natural beauty of the area have contributed to the recent growth of the Town as a residential "bedroom" community and to the expansion of the recreation/tourism industry over the last fifty years.

In-town Employment

In 2016, according to the Vermont Department of Labor, there were 1,386 "covered employment jobs" in Cambridge.*¹ The average annual wage of these jobs was \$30,950. In 2006, the number of in-town jobs was 1,258 which means that over the decade, Cambridge saw a net job gain of 128 jobs. Each job sector, with the exception of Food and Accommodation Services, added jobs. For example, Agriculture and Forestry added 35 jobs, Construction added 17, Manufacturing 14 and Retail 13 jobs. In Food and Accommodation services, 48 jobs were lost.

Recreation and tourism are dominant forces in the economy with Smugglers' Notch Resort being the largest employer in Cambridge with over 200 full-time employees and 600-800 part-time/seasonal employees drawn from communities both within and outside of Lamoille County. Once primarily a winter destination, Smugglers Notch has expanded to create more "four-season" activities. The creation of a self-contained village, the expansion of summer activities, and focus as a family resort has led to national recognition for the resort. Success and growth of the Smugglers Notch Resort provides a foundation for retail businesses, leisure and hospitality businesses, and food and beverage processing businesses.

Table 8. In-town jobs in Cambridge in 2016

Sector	Job Number
Accommodation and Food Services	676 jobs
Retail	141 jobs
Construction	134 jobs
Admin and Business Support Services	79 jobs
Public Educational Services	73 jobs
Agriculture, Forestry, Logging, Mining	50 jobs
Health Care and Social Assistance Services	49 jobs
Manufacturing (includes food & beverage manufacturing)	25 jobs
Arts, Entertainment and Recreation	19 jobs
Repair and Maintenance	18 jobs
Local Government	13 jobs
Federal Government	11 jobs
Other	98 jobs
Total	1,386 jobs

Source: VT DOL, 2016, <http://www.vtlmi.info/indnaics.htm>

*¹ Covered employment refers to jobs covered by unemployment insurance. Covered employment may not include self-employed individuals and may include part-time employees. Source: <http://www.vtlmi.info/indnaics.htm>

Labor Force

In 2016, Cambridge's labor force consisted of 2,220 residents – 2,140 employed and 80 unemployed – resulting in an unemployment rate of 3.7%. *² It is estimated that about 22% of Cambridge workers work in town. The remaining workers commute to work, with median commuting time being 33 minutes.

Median income of a Cambridge household was estimated at \$62,083 with differences existing between the income of households residing in Cambridge Town, Cambridge Village and Village of Jeffersonville. *³

Table 9. Median Household Income

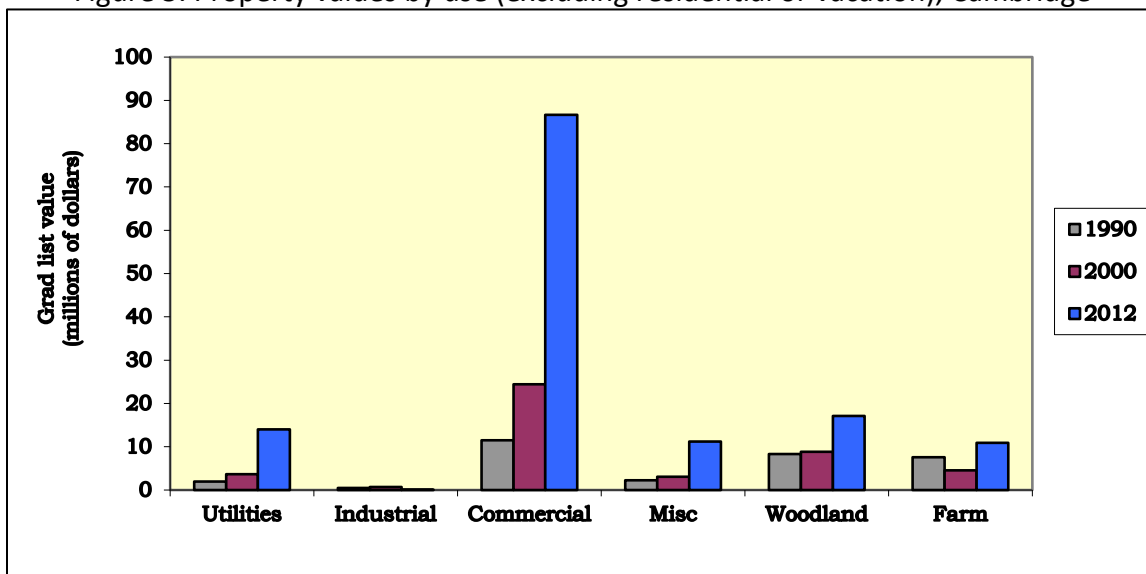
Cambridge Town	Cambridge Village	Jeffersonville Village	Lamoille County	State of Vermont
\$62,083	\$55,536	\$51,477	\$53,316	\$56,104

Source: American Community Survey Estimates 2011-2016

Tax Considerations

There are a few important observations of Figure 5. First is the significant growth in the grand list related to commercial development. While all classifications grew between 2000 and 2010, growth in the value of commercial properties was the most rapid.

Figure 5. Property values by use (excluding residential or vacation), Cambridge



The second observation is the change in farm parcels and value over the decade. This decline in farm parcels and values was likely an indicator of a weakening in the farm economy from 1990 - 2000. Fewer farms means fewer farm parcels, and less investment on the remaining parcels decreases the overall value. Consistent with statewide and national trends, Cambridge is seeing a comeback of the working lands industries.

The third observation is the increase in value in the number of woodland parcels. While the overall value of woodland on the grand list increased from 2000 to 2012, there was a 36% loss in the number of woodland (or wooded, as the 2012 grand list refers to them) parcels.

*² Source: Vermont Department of Labor <http://www.vtlmi.info/labforce.cfm>

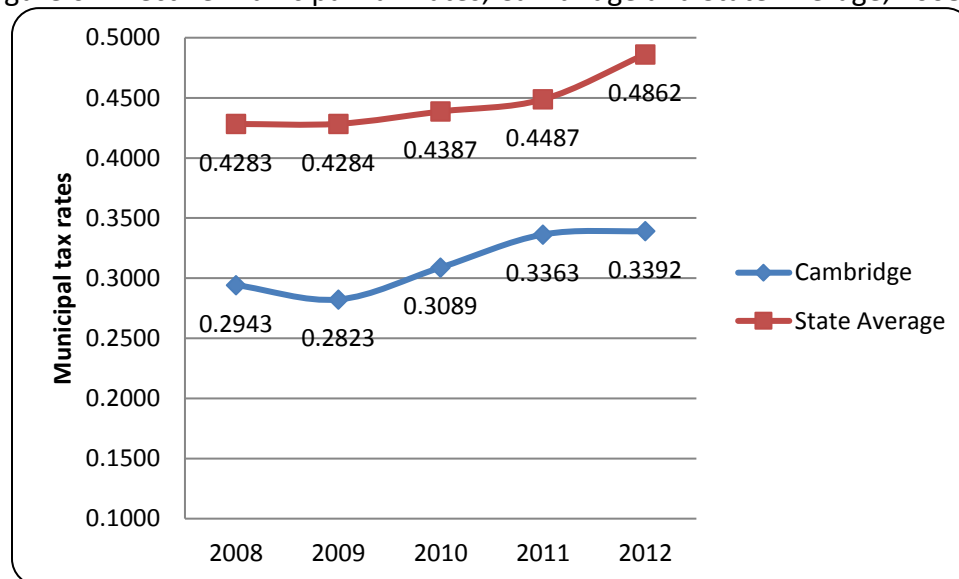
*³ Source: American Community Survey estimates 2011-2016 <https://factfinder.census.gov>

The final and most important observation is that Cambridge is becoming more and more dependent upon residential properties to cover municipal services. Residential properties used to make up 69% of the value of the grand list (1990) and increased to 81% (2000) of the grand list. In 2012, residential properties accounted for 76% of the grand list total. This is significant in that residential properties use more in services than they pay in taxes while commercial, industrial, farm, and forest properties generally require fewer services. The Town of Cambridge will need to identify ways to bring a diversity of land uses into town, including more industrial and commercial uses, and to protect existing farm and forest parcels.

Property taxes

Residents of Cambridge can have the most influence on their local tax rates. Rates can be kept steady through good budgeting, including a capital budget and program. They can be kept low through efficient spending and by controlling increases in services. As roads and education are, by far, the services with the largest budgets, road policies and education policies (including land use decisions) are important to controlling tax rates. As demonstrated by Figure 6, Cambridge Municipal property tax rates have consistently been lower than the statewide average.

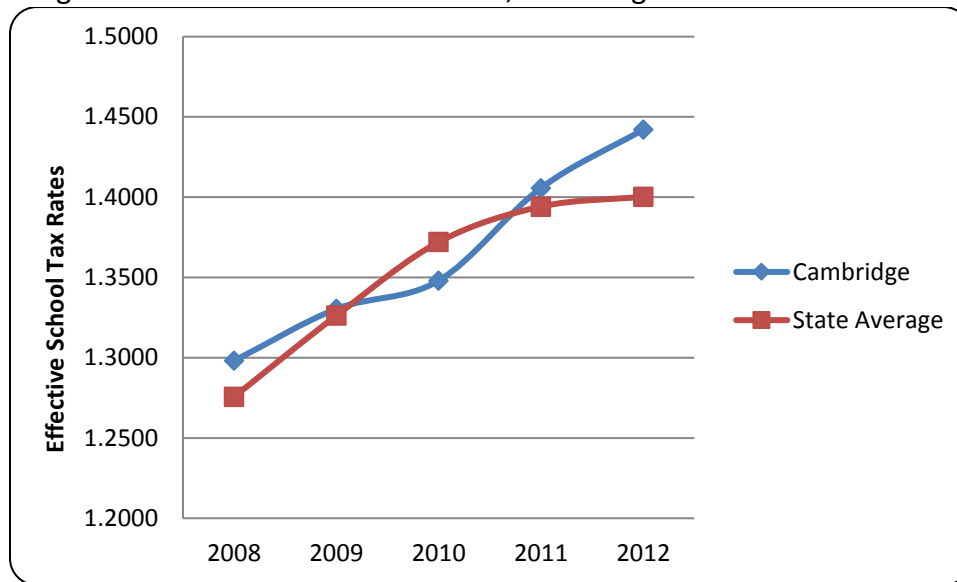
Figure 6. Effective Municipal Tax Rates, Cambridge and State Average, 2008-12



In 2008, the effective municipal tax in Cambridge was \$0.2943 per \$100 in value, while the State average was \$0.4283. The trend continued through 2012, when the effective municipal tax in Cambridge was \$0.3392, compared to a State average of 0.4862.

On the other hand, Cambridge's school property tax rates have been more in line with State averages and have exceeded the State average in some years. Figure 10 below compares the effective non-residential school property tax rate in Cambridge with the state average. Note that under Vermont's school financing system, residential and non-residential properties pay different rates. Due to this Chapter's focus on Economic Development, only non-residential rates are shown. In general, residential rates are lower than non-residential rates.

Figure 7. Effective School Tax Rates, Cambridge and State of Vermont



As demonstrated by this graph, over the last five years the Cambridge non-residential school property tax rates have increased at a similar rate as the State average. As of 2012, the effective non-residential school tax rate in Cambridge was \$1.4421, compared with a statewide average of \$1.4003. As noted in the Education Chapter of this Plan, increased enrollment at Cambridge Elementary School has triggered the need to renovate and reorganize the school facility, the costs of which have partially contributed to increased overall school spending.

When added together, the total municipal and school tax for non-residential property in Cambridge in 2012 was \$0.3392, lower than the statewide average of \$0.4862

In 2012, Cambridge residents and businesses paid \$7,725,391.99 in municipal taxes. Including all other income, the Town of Cambridge collected \$10,965,000.00 in receipts and income. Of that \$6,422,000.00 was school appropriations. Education taxes (Act 68) are discussed in the Educational Facilities and Services Report (Section VI).

Local Economic Assessment via SWOT analysis

In the winter of 2012/2013 the Cambridge Artists and Entrepreneurs (CAE) and the Lamoille Economic Development Corporation (LEDC) conducted a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis with Jeffersonville/Cambridge business owners. The focus of the meeting was to give input identifying the Strengths, Weaknesses/Limitations, Opportunities, and Threats impacting the Cambridge business community. A full house of business representatives from the Town of Cambridge and Village of Jeffersonville attended the meeting to voice their concerns and ideas regarding the current state of the area's local economy. Representatives from both the LEDC and the Lamoille County Planning Commission were present. The summary of the SWOT analysis, expanded to include 2018 updates, follows.

Strengths:

The Cambridge community benefits from a number of strengths which provide both a positive economic growth climate and a solid foundation for expansion and diversification.

- In the case of economic strengths, the majority of assets discussed were centered on the Town of Cambridge and the Village of Jeffersonville serving as a unique tourist destination within a close-knit community. Situated in the heart of the Green Mountains, Cambridge offers a variety of recreational

opportunities including skiing at Smugglers Notch Resort, hiking in the Notch, and biking or walking along local trailways such as the Lamoille Valley Rail Trail and the Lamoille and Brewster River. The area is well known for its scenic beauty and diversity of small scale farms, promoting a strong “buy local” movement.

- Jeffersonville is a well-established historic village, home to active community groups and local businesses. The Village’s surrounding scenic beauty, quality services, and existing infrastructure such as roads, municipal water and sewer, and Wi-Fi access, make Jeffersonville a local hot spot for a thriving artist community and diverse local commercial businesses.
- Cambridge is now served by high-speed internet access and carrier based ethernet is available to businesses located within the Village. As a result, Cambridge and Jeffersonville can offer businesses internet speeds that are noticeably higher than those available in some other parts of Vermont.
- A diverse tax base (i.e. having businesses located in the town) results in a lower residential tax rate. Cambridge residents and businesses enjoy a lower property tax rate than the statewide average. Low tax rates can promote growth as long as community services and infrastructure are not negatively impacted.

Weaknesses/ Limitations:

While Cambridge serves as a thriving community for selective residents and local businesses, there are still certain barriers discouraging businesses from locating in the area. These perceived weaknesses include:

- Transportation related issues: 1) Limited access to major interstates; 2) Limited public transportation and 3) Inability of some bridges and intersections to accommodate truck access.
- Limited sewage and public water access: Currently sewage disposal is currently limited to Jeffersonville and Smugglers Notch Resort. The public water supply in Jeffersonville is maxed out and needs to be upgraded.
- Limited business-grade broadband availability
- Limited parking facilities.
- Lack of infrastructure and services to attract and sustain young professionals. These include lack of high-tech jobs, and industrial development opportunities, lack of increased internship/higher educational opportunities, and lack of affordable housing.

Opportunities:

- Within the past decade, economic development has been increasingly challenged by re-occurring flooding events, especially within the Village of Cambridge and Jeffersonville. Undertaking efforts that result in flood mitigation is essential to local business development.
- Lamoille Valley Rail Trail presents another opportunity. Cambridge’s vision is to make the community a hub for activity originating on the Trail. All communities along the 92-mile rail line are going to be trying to capture the tourists traveling along the route. Communities with good parking and access to trail heads and those where riders can easily access services and attractions such as gas stations, restaurants, bathrooms, picnic areas, hotels/motels, etc. will attract the most visitors. Developing public Wi-Fi “hot-spots” at trailheads and other key points along the LVRT could set Cambridge apart from other communities seeking to capitalize on the trail. Cambridge also has the advantage of having every major type of recreation in town. An overall plan should be developed to maximize opportunities that already include hiking trails, biking, snowmobiling, canoeing, kayaking, cross country and downhill skiing, and more.
- The availability of carrier based ethernet in Cambridge represents a major opportunity to expand and diversify the local economy. High speed internet is a vital tool for growing the local economic base and would make Cambridge more attractive to home-based businesses, telecommuters, the cottage

software and web development industry, the creative economy, and even manufacturers who increasingly rely on broadband for product specifications and advertising.

- Additional economic development opportunities include harnessing the localvore, sustainable agriculture movement, collaborating with Smugglers' Notch Resort in marketing and business development efforts, and exploring additional internet marketing strategies to market Town specific events and businesses.
- Cambridge could also consider forming a joint Development Review Board with the Village of Jeffersonville, rather than having separate review boards (Cambridge Development Review Board and a Jeffersonville Zoning Board of Adjustment). The Village Trustees and Village Planning Commission would still be responsible for drafting and adopting bylaws that apply to the Village. The Town and Village could consider adopting both zoning and subdivision regulations, if appropriate. If zoning were adopted, Cambridge would become a "10-acre town," meaning the State would only have jurisdiction over commercial projects greater than 10 acres in size; whereas the State currently has jurisdiction over any commercial project greater than 1 acre in size. This is important as Act 250 permits take considerable time and expense.
- With public infrastructure and services provided by three independent municipalities within Cambridge, coordination between the various boards and commissions is needed in order to maintain a predictable business environment and to ensure that essential infrastructure is provided. To this end, meetings of the Town Selectboard, Cambridge Village Trustees, Jeffersonville Village Trustees, Cambridge Planning Commission and Development Review Board, and Jeffersonville Planning Commission and Zoning Board of Adjustment should be held on at least a quarterly basis.

Natural Resources: Objectives, Policies & Actions

- Objectives:
 - Preserve, protect and improve Cambridge's air, land, water and wildlife natural resources for the benefit of current and future generations.
 - Encourage community awareness and appreciation of Cambridge's natural resources.
 - Ensure that Cambridge's environment is healthy and safe.
 - Ensure that residents and officials of Cambridge have access to up to date maps and mapping tools to support and enhance planning and natural resource stewardship.
- Policies:
 - Air
 - Cambridge supports a level of air quality that provides a healthy and safe environment.
 - Future development and other activities should avoid or mitigate negative impacts on air quality.
 - Land
 - Sand and gravel and other earth resources should be extracted, maintained and restored in an environmentally sound way, following state rules.
 - All development in town must be pursued with strict regard to the capacity of the soils to support it.
 - Development is discouraged on slopes greater than 20% to prevent erosion.
 - Development is to be located to minimize impacts on prime and statewide agricultural soils.
 - Cambridge encourages protection and restoration of floodplains, and management of upland forested areas to attenuate flood waters
 - Water
 - No form of waste disposal or storage of possible contaminants shall be permitted in high water table and ground water recharge areas, or wellhead protection areas.
 - Development within, or proximate to a river, pond or perennial stream shall not have an undue adverse impact on water quality, and shall take place in such a way as to avoid crossing the stream and to protect and maintain at least a 50-foot native, natural vegetative buffer. 100-foot buffers are preferred where conditions allow.
 - All bridges and culverts shall be built and maintained to meet or exceed standards recommended by VTRANS to ensure minimal impact on rivers and streams.
 - Access to public waters for appropriate uses, such as fishing and swimming, shall be maintained.
 - All development shall conform to the Vermont State Wetland Rules.
 - No development shall occur within a flood hazard area except in conformance with the flood hazard bylaws.
 - Limit development in the fluvial erosion hazard areas to agriculture, recreation, and open space to protect the health, safety and welfare of the residents of Cambridge.
 - Agriculture, recreation fields, parks, and open space are all appropriate uses of flood hazard areas if done within parameters of applicable state and/or local regulations.
 - Cambridge will support Hazard Mitigation Grants and other applications that provide funding for property owners to undertake flood-proofing, or to buy out flood-prone properties.
 - All construction where soil is to be disturbed must provide adequate erosion control so that no soil moves off site or into surface waters or wetlands. Erosion control practices shall be in accordance with the most recent standards established by the State of

Vermont.

- Agriculture and forestry must abide by Vermont State rules and conditions.
- As a general rule, total impervious surfaces shall account for less than 10% of the area of any watershed. New impervious surface areas should be offset by undeveloped areas in other areas of the watershed.
- Where appropriate, stormwater technologies or techniques shall be used to prevent runoff from directly entering any surface water.
- Source Protection Areas and associated habitats, should be protected from pollution, filling, dredging, and any other use or activities that will result in their degradation or a reduction in their capacity to provide wildlife habitat, flood control, and water storage, drinking water and recreational opportunities

- Wildlife

- Ensure wildlife resources are protected and preserved to maintain the native diversity of wildlife throughout Cambridge through protection of critical habitats, core forest blocks and connectivity corridors.
- Development proximate to fragile and natural areas (deer yards, bear, moose and bobcat habitat, etc.) will take place in such a manner as to preserve their value for wildlife, education, research, aesthetics, and recreation and in consultation with the Department of Fish and Wildlife.
- Development shall avoid fragmenting habitat. Core habitat areas and interconnecting links (e.g. wetlands areas, riparian zones and travel corridors) shall be preserved.
- Rare, threatened, and endangered plants and animals and their habitats shall be protected and preserved through appropriate conservation techniques, such as limiting of clearing or disturbance where such species are present. Where appropriate, a buffer strip shall be designed and maintained to ensure protection.

- Actions:

- All Natural Resources

- The Planning Commission shall periodically review the effectiveness of existing Town subdivision standards related to natural resources.
- The Planning Commission supports the purchase of properties or development rights of properties for conservation.

- Air

- Continue to enforce a burning and disposal of solid waste ordinance, which prohibits the burning of trash.
- The Cambridge Conservation Commission shall explore ways to periodically review available data and information to identify specific issues and opportunities related to air quality in Cambridge.
- Cambridge should encourage compact developments in or near Village and Growth Areas through infrastructure investments, subdivision regulations, and other planning tools, to reduce unnecessary travel, thus reducing air pollution.

- Land

- Since the Stebbins Road Town Gravel Pit is no longer used for extraction, Cambridge needs to continue to purchase gravel or develop additional town sites.
- Any earth extraction operations are required to follow state of VT regulations and to submit approved site plans to the municipality.

- Water

- The Town should identify potential threats to groundwater supplies.
- The Town should adopt Wellhead Protection Area regulations to restrict land uses that

- present a risk of contamination to groundwater.
 - Cambridge Conservation Commission shall continue working with Lamoille Watershed Council and other agencies for the identification and protection of rivers and streams, wetlands, vernal pools and other water resources.
 - The Planning Commission shall review the flood hazard zoning regulations to ensure they are adequate to meet the goals and objectives of this Plan and meet state and federal guidelines.
- Wildlife
 - The Town should support efforts by the Cambridge Conservation Commission to facilitate conservation of natural and fragile areas, rare, threatened and endangered plants and animals, and important wildlife resources in town.
 - The Conservation Commission should conduct a study to determine how much of the natural and fragile areas, and important wildlife resources are protected and determine and prioritize what gaps exist in the conservation effort.
 - The Conservation Commission should work with landowners and other conservation organizations to implement recommendations related to improvement of the critical wildlife corridors such as the one located at “Willow Crossings” between Hubbard Drive and the Cambridge/Johnson Town line, as well as other potential crossings of Route 15.
 - The Conservation Commission should work with the Town and conservation organizations such as the Vermont Land Trust to explore funding mechanisms for acquisition of development rights and conservation easements.
 - The Conservation Commission should support and provide guidance to any property owner with questions or concerns about natural resources.
 - The Conservation Commission should continue work to resist and contain invasive animal and plant species, through education, surveys, and removal in collaboration with landowners and community members.
 - The Planning Commission should consider incorporating State of Vermont standards related to the protection of core forest habitat, deer wintering areas, bobcat and bear habitat into the Cambridge Subdivision Regulations.

Natural Resources Report

The most fundamental aspect of a community is the natural resource base upon which it is built. An understanding of this resource base, and the recognition that we are but stewards of the land where we live, will help ensure that development proceeds in an orderly and sustainable manner, so that future generations will also be able to enjoy its benefits.

The town of Cambridge is fortunate in the extent, and relative integrity of its natural resources. This is part of what gives Cambridge its rural character, scenic views, abundant wildlife, as well as its agricultural, forest product, and recreation economy, and contributes to the quality of life of its residents, and its attractive environment for visitors. Two of the main roles of this plan should be to ensure that human activity is based on the inherent capabilities of the land, and to protect the community's natural resources.

Online resources and information are available at the [Agency of Natural Resources' Department of Environmental Conservation website](http://anr.vermont.gov/environmental-conservation): <http://anr.vermont.gov/environmental-conservation>

Climate

Cambridge has a temperate climate with a wide temperature range between winter and summer typical of northern New England. Seasonal climatic conditions, and precipitation are affected by the topography of the area.

The relatively long winter season enhances winter activities, limits the growing season, and shortens the construction season. Careful design of structures, and infrastructure is necessary to minimize damage from snow loads, and frost damage.

Air quality

The United States Environmental Protection Agency has National Ambient Air Quality Standards (NAAQS) that establish acceptable levels of various types of air pollutants. Areas whose air meets these standards are considered "attainment," while areas that do not are considered "non-attainment." Vermont is currently the only state in which no area is currently designated as non-attainment for the NAAQS. However, Vermont is in the Ozone Transport Region, and as such must meet additional requirements to reduce levels of ozone and ozone forming pollutants.

Despite its rural nature, Lamoille County occasionally experiences "bad-air days" due to elevated levels of fine particulate matter, especially in winter months when "cold-air inversion" traps emissions in low lying valleys. Local sources of ozone and particulate matter come primarily from transportation and wood combustion, though a good quantity of this and other pollutants migrates to Vermont from other areas of the country. The exact proportion of air pollution generated locally is difficult to quantify. If the County were designated as "non-attainment," the State would need to develop regulations that will require the area to take additional actions to reduce emissions of target pollutants.

As noted above, two primary sources of local air pollution include woodstoves and automobiles. Newer woodstoves are now mandated by the EPA to contain pollution control equipment that significantly reduce particulate emissions. Replacing older woodstoves and furnaces has a positive impact on air quality over time. Automobiles are a second local source of air pollution. Strategies such as reducing driving miles, cleaner burning engines, commuter buses, carpooling/ride sharing, and using alternative-fuel vehicles all would reduce automobile pollution. Increasing local employment opportunities may also reduce the need to commute.

Geography

Elevation in Cambridge ranges from about 440 feet along the Lamoille River to about 3,900 feet where the Town's southern border crosses the ridgeline of Mount Mansfield. Cambridge has approximately 2,491 acres above 2,500 feet.

Bedrock Geology

The bedrock found in Cambridge is made up almost entirely of “complex, highly metamorphosed” rocks of the Green Mountains consisting primarily of Phyllites, Gneisses, Schists with varying amounts of Greenstones, and Amphibolites.” Along Route 104 west of the Village of Cambridge the bedrock is described as Schistose Greywacke, and a few small marble outcrops exist in places. (David P. Stewart. *Geology for Environmental Planning in the Milton-St. Albans Region, Vermont*. 1974. Vermont Geological Survey. Water Resources Department. Montpelier, Vermont).

There are two known talc deposits in Cambridge. There may be extractable quantities, given the proximity to large talc deposits in neighboring communities.

Surficial Geology

Most of the soils in Cambridge are derived from glacial till. Generally, the upland areas are thin, stony, well drained, and shallow to bedrock. Some upland valleys have sand and gravel deposited by glacial melt water. The lowlands consist mainly of sand and gravel with pockets of silt and clay on flood plains.

Topography

Severe summer storms, when combined with reduced vegetative cover at higher elevations, contribute to increased peak runoff which has negative impact at lower elevations. Therefore, slope is another crucial factor which affects runoff. There are approximately 12,326 acres of land which have a slope of greater than 30 percent in Cambridge (see attached Soil Limitations Map). Any development will need to include design controls to address increased runoff; it is particularly important for development activities at higher elevations, and on, or adjacent to steep slopes to control, and contain runoff on site.

Soils

On-site septic systems are primarily used for wastewater treatment in the Town (except in the Village of Jeffersonville and Smugglers' Notch Resort Village). A potential issue for outlying development projects, and the Village of Cambridge is the suitability of the soil for such systems. Steepness of the slope, depth of soil to bedrock, seasonal high-water table, and percolation rates are critical factors in determining suitability for on-site septic systems. It is likely that Cambridge contains many acres of soils that present severe limitations to on-site septic systems.

Development is presently controlled to some extent by the limited availability of soils suitable for septic disposal. However, future authorization by the State of new waste water disposal technologies could open up a significant portion of land that is presently considered ill-suited for development.

Prime Agricultural and Forest Soils

Approximately 13,745 acres (34% of the land area) in Cambridge are considered Primary Agricultural Soils as defined by the Natural Resource Conservation Service. Of these, 3,799 acres are classified as prime agricultural soil. The rest (9,946 acres) are classified as potentially good soils of statewide importance, and are protected from unwarranted development under Vermont's Land Use and Development Law (Act 250). Most

of the prime agricultural land in Cambridge is located along the Lamoille River flood plain (see Soil Resources Map)

Agriculture and forestry are considered the “best use” of Prime Agricultural soil resource. Responsible use of the soils ensures the resource is available for future generations. As agriculture and forestry are key land uses in Cambridge, they will be discussed in detail in the Agricultural and Forest Resources Report.

Sand and Gravel

Sand and gravel were created by glacial outwash deposits, making them essentially non-renewable resources. Typically, these resources can be found along the Lamoille River and in portions of South Cambridge and the Pleasant Valley.

Limitations

Geography, geology, and soils present a variety of constraints on proposed developments. Lands over 2,500 feet in elevation are considered fragile and cannot be developed per the State of Vermont’s Act 250.

Geologic hazards, such as the Jeffersonville landslide, are rare but do exist in places in town. Geology also determines the slope of the land, which is a third significant constraint to development. Steep slopes -- those over 30 percent -- are generally considered undevelopable. On-site wastewater disposal systems are not permitted on slopes of 20% or more.

The primary limitations presented by soils are to septic suitability. Shallowness to bedrock or high-water tables present barriers to developing compliant systems.

Construction over Resources and Extraction Issues

Sand and gravel are important local resources and are needed for road repair and construction. Gravel deposits are also important for recharging ground water supplies. Earth resource extraction and/or processing activities have a high potential for becoming a substantial nuisance in the area where such activities are located. Gravel extraction potentially causes these problems:

- Noise, dust, and air pollution or radiation;
- Surface and ground water pollution, siltation, or radiation;
- Storage and disposal of waste materials, both solid and liquid;
- Increased stormwater runoff, erosion, and sedimentation;
- Spoiling of the landscape and limited utility for subsequent uses of the site;
- Decreased highway safety and increased municipal costs due to increased traffic and accelerated deterioration of highways and bridges attributed to the transportation activities generated by the earth resource operations;
- Reduced property values because of primary or secondary impacts of the proposed earth resource operations. All these factors, single and together, may act to substantially depreciate land values in the immediate vicinity of such activities and the Town in general.
- Reduced filtration and recharge of groundwater supplies.

While earth resource extraction comes with risks, many of these resources are needed by residents for roads and building material, or for sale as a marketable resource. Of concern is that each of these resources is finite and once depleted cannot be replaced. Additionally, development near or over the resource may, in effect, make the extraction impossible in the future. Therefore, any construction over an earth resource should account for the potential loss of that resource. The State has estimated that 31% of all sand and gravel

deposits in Vermont are now inaccessible due to State regulations, including water supply protection, critical wildlife habitat, conserved lands, and other factors. (Aggregate Resources of Vermont, VT Geological Survey 1993). Current developments over deposits have further limited the availability of the resource.

The Town, therefore, has two responsibilities. First, Cambridge needs to be vigilant in its regulation of earth resource extraction operations to prevent the creation of a nuisance. And second, the Town needs to protect the resource to ensure its availability for future residents.

Town Gravel Pit

The Town of Cambridge currently owns a gravel pit. Per the 2017 Town Report p. 33 it is located on 1225 Stebbins Road and is 33.08 acres. The Town no longer extracts gravel from the pit. Cambridge currently purchases gravel from another municipality or private suppliers. The Town should consider restoration and potential alternative uses of the existing pit.

Water Resources

Water is an important resource from several perspectives. Historically, water provided the principal means of transportation and commerce, as well as drinking water and power generation. Today it is recognized that this resource is an essential component of the community's natural and human environment in that it provides safe and clean drinking water, recreational opportunities, wildlife diversity, and enhances the landscape.

Ground Water

Water that is below the earth's surface is classified as ground water. It is precipitation that has infiltrated the soil and bedrock to accumulate over an extended period. Information about the location, quality, and quantity of ground water is important for site evaluation for development. Ground water is the primary source of drinking water for the community, and is truly a community resource.

For most residents, private wells and springs are the primary source of water for consumption and domestic use. Residents of the Villages of Cambridge and Jeffersonville and the Village at Smugglers' Notch receive their water from municipal or community wells. A Wellhead Protection Area (WHPA) delineates each of these public water supplies. WHPAs are defined as the surface and subsurface area surrounding a spring or well that serves as a natural recharge, collection, transmission, and storage zone for public water supply systems. Cambridge has five Wellhead Protection Areas.

The municipal WHPAs are in three areas of Cambridge Town. Jeffersonville Village's WHPA is spring fed and is located east of the "Old Notch Road" (Town Highway 78) near the Smuggler's Notch Resort. Cambridge Village has two WHPAs; one on Bartlett Hill, and the other west of the "wrong-way-bridge" in Cambridge Village (see Water Resources Map).

There are also two public water supplies which serve the Village at Smugglers' Notch. Public water systems are defined by the Vermont Department of Health as serving "... at least ten (10) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year...."

As development increases, so too will the potential for ground water contamination. Major sources of potential ground water contamination include underground storage tanks, waste disposal areas, septic tanks, commercial or industrial hazardous chemicals, some agricultural activities, road salting, and storage. The effect of agricultural practices on Cambridge's groundwater quality is unknown. Pesticides, soil additives, and other nutrients can migrate into ground water supplies, but this has not been identified as a problem in Cambridge.

On certain types of soils and on steep slopes on-site sewage disposal systems can pollute ground water supplies. In densely populated areas, even if located on well drained soils, there may be cumulative effects beyond the capacity of the prevailing geologic and soil conditions to safely accommodate waste disposal, again potentially polluting water supplies. Engineering techniques can overcome specific limitations to some degree; however, qualified officials should carefully review development proposals in areas with known soil limitations.

In terms of public investment, the prevention of ground water contamination is a more cost-effective approach to maintaining water supplies than the cleaning-up of contamination or the subsequent development of new water sources.

Rivers and Streams

Features such as rivers, streams, lakes, ponds, and wetlands are classified as surface waters and provide many important natural functions (such as flood water attenuation, water quality, climate resilience, wildlife habitat, connectivity among habitats, biological diversity etc.). The primary river flowing from east to west through Cambridge is the Lamoille River, which serves as an important focal point of the community and region. The river also provides numerous recreational opportunities and receives water from a number of wastewater treatment plants.

Except for Black Creek, which flows north into the Missisquoi River Drainage Basin, all the rivers and brooks in the Town of Cambridge flow into the Lamoille River Drainage Basin. Major tributaries of the Lamoille are Brewster River, North Branch River, Judevine Brook, and Seymour River. In addition to Gallup Branch, and Settlement Brook, there are a number of unnamed tributaries.

Fishing, boating, and other consumptive, and non-consumptive uses of water resources provide the basis for substantial income to Vermont communities. Cambridge is a destination point for sportspersons and benefits in many ways as sportspersons purchase equipment, licenses, food, lodging, and other various goods and services. According to recent studies published at the Agency of Natural Resources' Stream Geomorphic Assessment website (<https://anrweb.vt.gov/DEC/SGA/finalReports.aspx>), five of Cambridge's named rivers were identified as home to fisheries (Rainbow, Brown, and Brook Trout). Cambridge's fisheries are a destination for anglers who come from all over Vermont during trout season.

Fisheries and other recreational opportunities can be diminished by shoreline encroachment, water withdrawal, sedimentation, road crossings, and pond construction. Development that occurs close to a stream bank can cause erosion and eliminate vegetation that can alter the water temperature and eliminate many aquatic species. Erosion and sedimentation can make rivers and streams impassable for recreational boaters. Road crossings can inhibit the movement of fish from one place to another for feeding and spawning and contribute to overall habitat loss.

In the same studies, the Lamoille and Brewster Rivers were found to be relatively unique as "Undeveloped River Corridors." Undeveloped River Corridors are river segments which are over five miles in length, free of impoundments, and have relatively non-intrusive land use along their shores. Segments of the Lamoille River which were identified as special are: Cady's Falls (Morristown) to Cambridge Junction and Jeffersonville to Fairfax. The Lamoille River from Hardwick (through Cambridge) to Milton was identified as a recreational boating river. The North Branch of the Lamoille River was noted for its "stream features--meanders, oxbows, and oxbow lakes".

The Brewster River was also cited as a unique "undeveloped river corridor." The Brewster River Gorge is an important example of a hydro-geological feature. It is one of Vermont's deepest gorges with a long vertical drop in a natural setting. The potential for degradation of the gorge is highly likely due to high recreational use, potential subdivision, and residential growth rates in the community. ("[Waterfalls, Cascades and Gorges](https://anrweb.vt.gov/PubDocs/DEC/WSMD/mapp/docs/mp_TheWaterfallsCascadesAndGorgesOfVermont_Jenkins_Zika_1988rev.pdf)," Vermont Agency of Environmental Conservation: https://anrweb.vt.gov/PubDocs/DEC/WSMD/mapp/docs/mp_TheWaterfallsCascadesAndGorgesOfVermont_Jenkins_Zika_1988rev.pdf)

Lakes and Ponds

Cambridge has three named ponds and several very small ponds scattered throughout the community. The named ponds, Sterling Pond, Bear Pond, and Lake-of-the-Clouds, are in the southern area of the Town in the Mount Mansfield State Forest. These ponds range in size from one to eight acres. These ponds are among the highest water bodies in the State of Vermont. Access to Bear Pond and Lake-of-the-Clouds is limited. However, Sterling Pond is a popular day hiking destination and the highest elevation trout pond in the State of Vermont. Due to this high elevation, several rare fish species can be found in Sterling Pond. These fish have also been found in the Brewster River.

Flood Hazard Areas

Floodplains are land areas adjacent to water bodies, primarily rivers, which are subject to seasonal or periodic flooding. These areas store runoff during heavy rains and spring thaws, thus slowing the velocity of water flowing downstream. Gradual release of storm water minimizes erosion, stream bank scouring, and downstream flooding. Floodplains also provide important recreational, agricultural, aesthetic, drainage, and wildlife functions. The continuation of each of these functions requires consideration of the watercourses and their associated shorelines when designing for construction in their vicinity.

Floodplains are considered unsuitable for development for several reasons: potential danger to life and property, loss of flood water storage, effects on channel capacity and downstream communities, and improper functioning of subsurface sewage disposal systems where there are high water tables. Floodplain areas in Cambridge are prime agricultural land due to the highly productive nature of the soils and can serve as recreational sites such as parks and ball fields.

Clearing of upland vegetative cover increases stream runoff peaks; the higher elevations are particularly sensitive to clearing. An increased land covering of impervious materials (e.g. roofs, roads, and parking lots, etc.) associated with physical development also contributes to increased peak runoff. Since these materials do not allow for infiltration and absorption of storm water, excess water is forced onto already saturated areas of the flood plain.

Flood Hazard Areas in Cambridge are associated primarily with the Lamoille, Brewster, North Branch and Seymour Rivers. There is also a flood hazard area associated with the Black Creek in North Cambridge. Both the Village of Cambridge and the Village of Jeffersonville are located near the fringe of (or within) the Lamoille River's 100-year flood area. Flood Hazard Areas are shown on the maps produced with this Plan, and are based on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, which can be found in the Town Clerk's office (see associated Water Resources Map).

Fluvial Erosion Hazards

Rivers and streams are not static and meander across the landscape over time. Fluvial erosion occurs as rivers and streams modify their bank locations and can range from gradual bank erosion to catastrophic changes in river channel location and dimensions during a large flood event. (See [Municipal Guide to Fluvial Erosion](#)

[Hazard Mitigation](#) for more information:

https://anrweb.vt.gov/PubDocs/DEC/WSMD/rivers/docs/rv_municipalguide.pdf) Most flood-related damage in Vermont is caused by fluvial erosion rather than inundation. Modification to a river and its banks, such as straightening, dredging or restricting access to the floodplain, can exacerbate the effects of fluvial erosion. Limiting the amount of new structures placed in defined Fluvial Erosion Hazard Areas prevents unnecessary threats to life and property and reduces the need for flood control measures.

The [Vermont Department of Environmental Conservation \(http://dec.vermont.gov/\)](http://dec.vermont.gov/) and Lamoille County Planning Commission completed a “Geomorphic Assessments” of the Brewster River in 2013 and the Seymour River in 2018. These assessments identified and prioritized restoration projects aimed at reducing sediment and nutrient loading to downstream waters such as the Lamoille River, reducing the risk of property damage from flooding and erosion, and enhancing the quality of in-stream habitat. Many of these projects involve conservation and re-vegetation of riparian areas. Since many of these areas are privately owned property, coordination and collaboration with property owners will be especially important to implement these projects.

To protect people and property from flood hazards and reduce future damages to private property and public infrastructure, in 2015 Cambridge revised the flood hazard bylaws. Maintaining the bylaws that meet the minimum FEMA standards, makes it possible for Cambridge residents to purchase flood insurance through Federal Emergency Management Agency’s National Flood Insurance Program. The revised bylaws go above meeting the minimum standards and include several “above code” measures. The above code measures require that new structures in the 100-year floodplain be elevated at least two feet above the 100-year based flood elevation. The bylaws also require compensatory storage. Compensatory storage means that if fill is needed to elevate a structure in the floodplain, the same amount of fill must be lowered somewhere else to preserve the ability of the floodplain to store water. To further mitigate natural hazards, every five years, Cambridge updates a Local Hazard Mitigation Plan that prioritizes mitigation actions of most importance to the community.

Wetlands

Wetlands refer to water and land areas commonly known as marshes, swamps, bogs, fens, and similar areas where water is a controlling factor in the development of plant and animal communities.

Many functions and values that wetlands provide have been identified. These include in part: fish; wildlife and migratory bird habitat; rare, threatened and endangered species habitat; education and research; recreation; open space; and aesthetics. These functions are important not only for their natural value, but also for their human value such as water quality improvement; storm and flood water storage; erosion control and shoreline stabilization; and the resultant economic values and benefits.

Most wetlands of at least 2-3 acres have been mapped as part of the National Wetlands Inventory. In addition to Federal law, under Section 404 of the Clean Water Act, wetlands are also subject to State law under the Vermont Wetland Rules. Both restrict the filling, dredging, or draining of wetlands with exceptions provided for certain land use activities. There are approximately 870 acres of wetlands in Cambridge. While wetlands are found throughout the community, Cambridge has four areas with concentrations of wetlands: (see associated Water Resources Map).

- 1) Along the Lamoille River (east and west of Jeffersonville), and north along the North Branch River;
- 2) In the northern part of Cambridge along Route 108 north and the old railroad bed; and in the upper reaches of Black Creek;
- 3) In the southern part of Cambridge between Upper Valley Road and Route 108 south.
- 4) Brewster Uplands and base of Sterling Range

Vernal Pools

Vernal Pools (<http://dec.vermont.gov/search/node/vernal%20pools>) are seasonal wetlands, filling with snowmelt and spring rains, but often drying up by summer, creating a cycle of flooding and drying that prohibits permanent fish populations. These pools provide critical habitat for many salamanders, including some “medium” priority Species of Greatest Conservation Need, such as the Blue- Spotted, Spotted, Jefferson, and Four-toed salamanders, other vernal pool-dependent invertebrates such as fairy shrimp, and several freshwater snails and dragonflies. The loss of a single vernal pool in any given area could easily cause the demise of the local wood frog population, along with any pool-breeding salamanders, and would certainly cause the extirpation of the pool’s fairy shrimp.

Vernal pools are critical habitats of incredible diversity and productivity. However, vernal pools often receive little or no protection under Federal and State regulations. In Vermont, vernal pools are not recognized as significant wetlands under the 1990 Vermont Wetlands Rules, and while they may qualify for protection as “wildlife habitat” under Act 250, they are not considered critical wildlife habitat, a designation necessary for legal protection. As a result, vernal pools are not currently protected if a development is not subject to Act 250 review. There are 16 identified vernal pools in Cambridge (according to the [Vermont Center for Ecostudies](#)).

Water Quality

The Vermont Water Resources Board has established a water quality classification system which specifies (1) water quality goals to be attained where actual water quality is lower than the standard, or (2) the minimum standard to be maintained where actual water quality is higher. It is important to keep in mind that the Class A, B, and C designations are water quality goals, and do not necessarily reflect the present water quality of Cambridge's waterways.

Although there may be some upland headwaters which are “Class A” waters (the cleanest), most of the waters in Cambridge have been classified by the Board as “Class B,” suitable for drinking with filtration and disinfection, irrigation and other agricultural uses, swimming, and recreation. A small section of the Lamoille River is classified as “Class C” to provide a mixing zone for treated wastewater (from the Waste Water Treatment Plant outflow where Route 15 crosses the Lamoille downstream for one mile). Class C waters are not suitable for water-contact recreation.

Wildlife Resources

The identification of, and planning for, wildlife habitat needs are important planning issues at the local level. These resources play an important role in both the natural and human environment. Both consumptive and non-consumptive enjoyment of wildlife contributes significantly to the Vermont economy. If the habitat needs are not consciously considered, the viability of these areas will be gradually lost, and the future benefits, ecological, financial and social, derived from wildlife and fisheries will be lost with them.

In 2006/2007 Capen et al. from the University of Vermont Spatial Analysis Lab undertook an ‘Assessment of Wildlife Habitat and Habitat Corridors in Cambridge, Vermont’. According to this report the town is predominantly forested with 75% of its roughly 42,000 acres in forest cover. Only 5% of the town is developed, and 12% is in agriculture. The forestland is remarkably un-fragmented by roads and development and 51% of the forest is considered ‘core habitat’, i.e. more than 100 meters from developed edges (although this figure may have changed since this study). These ‘interior forest blocks’ are important for a wide range of species, and connecting habitat (especially riparian corridors (shorelines and their buffers), but also hedgerows and other vegetated cover) is vital to maintain genetic diversity in populations, and for wide-ranging species. Furthermore, the scattered wetlands associated with the Lamoille River and its tributaries

create a diverse matrix of habitat types, including some of state-wide significance such as a Sugar Maple-Ostrich Fern Riverine Floodplain Forest and a Red Maple-Northern White Cedar Swamp both in the North Branch drainage.

Core Forest Blocks

The main forest blocks are 1) east of Bartlett Hill, 2) between Route 108 and 109 (which connects north to the Cold-Hollow to Canada region, and is part of the largest contiguous northern temperate forest in the world), 3) Sterling Range which is essentially contiguous with 4) Mount Mansfield and the area south of Burnor Rd that connects with Underhill, much of which is part of the Mount Mansfield State Forest. This is the largest forest block of almost 6,900 acres.

These forest blocks are mapped on the ANR's Natural Resources Atlas and can be viewed through BioFinder (<http://anr.vermont.gov/maps/biofinder/>). Also shown on BioFinder are the priorities of the Vermont Conservation Design (see Act 171 Priorities Map). At a state level the majority of the town of Cambridge is considered 'priority' or 'high priority' for conservation. This is not to say that development is prevented, but it is important that any development is done in consultation with environmental experts who have a view of the development in the larger ecosystem context. Development should be done as sensitively as possible, so as to avoid fragmentation, and excessive damage to wildlife habitat and connectivity, for example maintaining connected vegetated corridors, siting development on the edge of forest blocks, avoiding long roads that cut into core forest etc.

Forests play a critical role in attenuating floodwaters as forested land can absorb and hold water much more effectively than cleared or developed land. Maintaining unfragmented, upland forests is an important component of flood resilience.

Core Forest Habitat

While some species such as deer can accommodate human populations, many others rely on large blocks of unfragmented forest for their mating, nesting, feeding, and denning habitats. These areas are referred to as "Core Forest Habitat," and generally consist of forestlands that are at least 100 meters (328 feet) from significant development such as roads, houses, and active farmland. Species that rely on such areas include hawks, owls, songbirds, fisher cats, moose, bobcats, and black bears. Mammals such as deer, moose, bear, bobcat, fisher, and coyote may require very large contiguous forest acreage up to 600 to 7,500 acres. Fragmentation of large forest blocks through subdivision and development diminishes species' ability to access core habitat functions and may result in a change in species' composition from species such as moose, bears, hawks, owls, and bobcats, to other species such as pigeons, sparrows, starlings, and skunks. Blocks of core forest habitat are found throughout Cambridge, with the largest blocks found along Mount Mansfield and the Sterling Ridge.

Wildlife Corridors and Road Crossings

Wildlife Corridors consist of connecting habitat land that links large patches of habitat within a landscape, allowing the movement, migration, and dispersal of animals and plants. Corridors are not always linear as the term implies. Riparian habitat along streams and rivers, strips of forest cover between developed areas, and even hedgerows and fencerows all represent potential connecting habitat. Corridors between large patches of habitat help ensure the ultimate viability of local wildlife populations. Wildlife corridors create a network of habitat connectivity, linking together both large and small patches of land, in both highly fragmented and highly connected landscapes. High priority and priority connectivity areas are shown on BioFinder and on the Act 171 Priorities Map.

Roads commonly form a barrier to wildlife movement and the identification of high use road crossings is important from both a wildlife protection and a driver safety point of view. The large tracts of undeveloped land in Cambridge means that wildlife will not be funneled into concentrated areas when crossing roads (Capen, et al., 2007) and as a result, many of the roads in Cambridge are shown as highest priority wildlife crossings on the Act 171 Priorities Map. Conservation action should work to improve road crossings along Rt. 15 which is currently the biggest barrier to wildlife in the town.

In 2013, the Vermont Fish and Wildlife Department completed a statewide study of “critical pathways” connecting important blocks of wildlife habitat, focused on important wildlife crossings along the State transportation network. This study identified an important wildlife corridor connecting Mount Mansfield to the northern Green Mountains along Route 15 at the “Willow Crossing” area between Hubbard Drive and the Cambridge/Johnson Town Line. This area includes a small (likely undersized) culvert under Route 15, a small brook and associated riparian habitat, and surrounding wetlands. Among the recommendations of the report were replacing the existing culvert with a larger bridge or box culvert, enhancing riparian vegetation, and working with willing landowners to acquire conservation easements along the wetland and other surrounding lands.

Fragile and Natural Areas and Rare, Threatened and Endangered Species

Fragile and natural areas comprise some of the irreplaceable habitats, ecosystems, and natural features found as part of Cambridge's heritage. These resources provide ecological, educational, economic, historical, and visual benefits to the area's residents and visitors. They are important links to the area's past and provide information about the evolution of the natural environment.

In 1977, the Vermont Legislature established the Fragile Areas Registry (10 VSA Ch. 158). The goals and purpose of this registry were to protect these significant areas through documentation and education and to encourage their long-term protection through non-regulatory means. Under the law, “Fragile Area” means an area of land or water which has “unusual or significant flora, fauna, geological or similar features of scientific, ecological, or educational interest.” In order to be considered for designation, a site must:

- be of significant statewide scientific, ecological, or educational value; or
- be exemplary for the purposes of education or research in the natural sciences; or
- have rare, remnant, or other unusual plants or animals or contain endangered or threatened species as determined by the Secretary under Title 10, Chapter 123; or
- contain a necessary wildlife habitat as the term is defined in Section 6001(12) of Title 10.

These fragile areas are classified as physical features such as structural geologic, glacial, marine or aquatic features, or biological features such as alpine, forest, marshland communities for both flora and fauna. These areas must also be evaluated to determine if the area is truly significant and deserving of inclusion in the registry.

There are two “fragile areas” in the Town of Cambridge; Cambridge Pine Woods and Smugglers’ Notch, both of which are presently in public ownership.

Cambridge Pine Woods

The Cambridge Pine Woods Natural Area is located adjacent to the Mountain View Cemetery north of Cambridge Village. It is owned by the State of Vermont Department of Forests, Parks, and Recreation, and is listed on the State's Fragile Areas Registry. It is an old-growth stand of white pine and hemlock on a steep,

sandy hill. Individual trees reach large diameter and height. The Cambridge Pine Woods Natural Area is considered an important forest community as it offers a view back to what some of Vermont's original forests may have looked like when the area was settled and because it offers an opportunity to observe forest succession as the pine trees are gradually replaced by hardwood trees.

Smugglers' Notch

Smugglers' Notch is in the southern part of the Town, in the mountain pass between Spruce Peak and Mount Mansfield. It is an exceptional example of a cold-calcareous cliff community. This site harbors several arctic/alpine plant species growing at the southern limits of their ranges. Many of the plants that appear in this community are considered rare and are protected by State law. In fact, Smugglers' Notch maintains one of the highest concentrations of rare plants in Vermont. At least 34 plant species listed as rare by the State have been documented in Smugglers' Notch. Smugglers' Notch also provides a home for several unique animals and birds. Most notable are the Peregrine Falcons who reside on the cliffs above, or around the "elephants head" and are listed on both State and Federal endangered species lists. This site is also listed in the Fragile Areas Registry and is owned by the State of Vermont and managed by the Department of Forests, Parks, and Recreation.

The Smugglers' Notch Scenic Highway consists of a portion of VT 108 between the Smugglers' Notch and Stowe Mountain Resort in the Towns of Cambridge and Stowe. Current information about this byway, and other across Vermont, can be found here: www.vermontvacation.com

Other examples of state-significant natural communities that exist in Cambridge are the Montane Spruce-Fir community, and the Montane Yellow Birch-Red Spruce Forest of the Sterling-Mansfield Range (both considered 'uncommon'), as well as the Red Maple-Northern White Cedar Swamp (uncommon) and Sugar Maple-Ostrich Fern Riverine Floodplain Forest (rare) both on the North Branch of the Lamoille near the Waterville town line (see [BioFinder](#)).

There are two mollusks in the Lamoille River that are of interest. The giant floater (*Pyganodon grandis*) is a state-threatened species, and the creek heelsplitter (*Lasmigona compressa*) is listed as rare (Capen et al., 2007).

Deer Wintering Habitat

Vermont's deer herd is important for both environmental and economic reasons. Deer wintering areas, commonly referred to as Deer Yards, are defined and delineated by the Vermont Department of Fish and Wildlife. These areas are so designated because of their vegetation, slope, and other factors that shelter the deer from the harsh winter. They generally consist of areas where coniferous forests dominate. Not only are these sites important, but so too are corridors linking them together and to other undeveloped areas to facilitate the deer's annual migration from summer to winter habitats. One community's deer wintering areas may serve a population from several miles around. In addition to deer, nearly half of Vermont's vertebrate wildlife species rely on coniferous forests for at least part of their life needs. It is important to note that deer wintering areas are often located on the "edge" between core habitat areas and areas with more densely populated human settlements.

In Cambridge, there are eleven specific areas that have been identified as winter deer range by the Vermont Department of Fish and Wildlife. (see associated Critical Habitat Map).

Bear Habitat

Approximately half of the Town of Cambridge is considered as black bear production habitat according to a 1989 map prepared by the Vermont Department of Fish and Wildlife, and black bear sign and mast trees were frequently encountered in the fieldwork done by Capen et al (2007). Bear habitat is found primarily along Mount Mansfield and Sterling Range. Major areas are also found along the southwest side of Pleasant Valley and along the Fletcher-Waterville-Cambridge border.

The contiguous and remote forestland contained in these tracts is necessary for the long-term stability of Vermont's bear population. These regions support relatively high densities of cub-producing females. The presence of black bear is an indicator of Vermont's remote forestland since at least one-half mile from development is required for breeding. Areas with mast species such as beech are very important for bears. Forest fragmentation can make it impossible for bears to move from one habitat to another.

Invasive Species

Non-native, invasive species (http://anr.vermont.gov/about_us/special-topics/invasive-species) can cause irreversible impacts on ecosystem health and biodiversity. Three non-native insects which currently threaten Vermont are the emerald ash borer, Asian long horned beetle, and hemlock woolly adelgid. Many exotic insects and diseases, such as beech bark disease, butternut canker, and gypsy moth, are already established statewide.

Invasive plant growth can lead to loss of native flora and fauna. Japanese Knotweed is one aggressive invasive species that is becoming increasingly prevalent in Cambridge. Colonies of Japanese Knotweed can quickly overtake stream banks, empty lots, construction sites, and back- yards. When the plant is disturbed above-ground, a chemical in the root stimulates the growth of new shoots – up to 60' away from the “mother” plant. A new colony of knotweed can be established by a chunk of root or stem no larger than a human fingernail. Knotweed quickly outcompetes native vegetation, contributes to soil erosion, especially along stream banks, and has been known to grow through and damage infrastructure such as bridge abutments.

Conserving genetic diversity within native host species increases potential resiliency with regard to invasive pests. Several actions are needed to address non-native invasive species. Among them are preventing new introductions through common pathways such as firewood, nursery stock, contaminated fill and other non-local products. While there are no official State regulations related to firewood used at private homes, the Vermont Department of Forests, Parks, and Recreation recommends that firewood not be transported more than fifty miles. Other important actions needed to address non-native species include preserving the genetic resources of native species that may be impacted by invasive species; working with partners to develop tools for detecting, identifying, evaluating, and managing invasive pests; and responding rapidly if infestations are detected. Local citizens and the Cambridge Conservation Commission can play a key role in preventing the spread of invasive species.

Agricultural and Forest Resources: Objectives, Policies & Actions

- **Agricultural Resources Objectives:**
 - Promote the retention of working farms and agricultural products as viable parts of Cambridge's economy, landscape, and culture.
- **Agricultural Resources Policies:**
 - Further fragmentation of productive agricultural land is to be discouraged; continued access to productive farmland should be ensured.
 - Development within agricultural areas will be sited to avoid taking viable agricultural areas permanently out of production. Non-agricultural structures should not be placed in open fields and meadows; such structures and related infrastructure will be set back from field edges and follow tree lines where feasible to minimize disturbance and visual impacts and to maximize open productive space.
 - Agricultural operations should follow "Accepted Agricultural Practices" (AAPs) defined by the Vermont Commissioner of Agriculture. Cambridge encourages the use of Best Management Practices (BMPs) where feasible.
 - Cambridge supports community members pursuing sale of development rights and other conservation methods, provided the land protected meets the objectives of this Plan.
 - Cambridge encourages farm owners to participate in Vermont's Current Use Program.
 - Cambridge supports the development and expansion of value added agricultural products and businesses.
 - Cambridge supports efforts to provide local residents and businesses with locally grown foods, such as farmers markets and other local agricultural marketing tools.
- **Agricultural Resources Actions:**
 - The Planning Commission should assist landowners interested in adopting Best Management Practices.
 - If zoning regulations are considered for adoption in the future, the Planning Commission should establish standards and allow the use of Planned Unit Developments (PUDs).
 - The Planning Commission should establish areas in town where agriculture is the primary land use. In this way, conflicting land uses, such as residential properties, will be identified and minimized. The Planning Commission should consider requiring subdivisions in these areas to include "right-to-farm" language in deeds protecting neighboring agricultural operations against nuisance lawsuits.
 - The Planning Commission should identify significant agricultural lands through the development and use of planning tools such as Land Evaluation and Site Assessment (LESA).
 - The Planning Commission should monitor and evaluate the local impact of changes to the Current Use Program and examine local property tax alternatives that are sensitive to maintaining productive resource lands.
- **Forest Resources Objectives:**
 - Retain working forestland as a viable part of Cambridge's economy, landscape, and culture.
- **Forest Resources Policies:**
 - Further fragmentation of productive forestland is to be avoided; continued access to productive forestland should be ensured.
 - Cambridge encourages the use of Best Management Practices where feasible.
 - Given the large amount of State-owned land within Cambridge, public use of this land for recreation, wildlife management (including hunting), timber management, and maple sugar production should be allowed and encouraged.
 - Cambridge supports the efforts of the Cambridge Conservation Commission in facilitating the

purchase of development rights and other conservation methods to protect land in a way that meets the objectives of this Plan.

- Cambridge strongly discourages ridgeline development regardless of elevation.
- Forest Resources Actions:
 - The Planning Commission should identify significant forestlands through the development and use of planning tools such as Forest Land Evaluation and Site Assessment (FLESA).
 - The Planning Commission should establish areas in town where forestry is the primary land use. In this way, issues such as fragmentation of the resource can be minimized.
 - Cambridge should work with the Vermont Department of Forests, Parks, and Recreation to determine if areas of the Mount Mansfield State Forest should be open to maple sugar production. Only areas that would not degrade recreational use of the forest should be considered. If so, the Town and Department should consider piloting a test program allowing maple sugar production on State Forest land.
 - Cambridge supports efforts to promote active land management through use and growth of e-commerce and telecommunications tools such as the Vermont Fish and Wildlife Landowner/Hunter Access Registry:
http://www.vtfishandwildlife.com/wildlife_hunteraccess.cfm

Agricultural and Forest Resources Report

Agricultural Resources

The use of the land for agricultural purposes plays an important role, both directly and indirectly, in Cambridge's economy. It also supports the community's traditional settlement pattern by providing a diversity of land uses and open space. Contrasting with the farmland in the valleys, the forested hills and mountains add a dramatic backdrop to the Town. Completing the mosaic of land uses are the villages and residential areas that are nestled between and within these two landscape features.

Planning for, and supporting the working landscape, is critical to maintaining this balance. Working landscapes, like farming and forestry, contribute to the Town's overall beauty, its economy, and its history. Conserving working landscapes is more than purchasing land and development rights. As will be discussed, conserving our traditional land uses involves a commitment by the community to ensure that the economic foundation that supports this way of life is maintained into the future.

The Economy

According to the 2012 Grand List, there are 18 properties assessed as farms in Cambridge. The statutory definition of a farm includes the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops or the raising, feeding, or management of livestock, poultry, fish, equines, or bees or the operation of greenhouses or the production of maple syrup. The definition also includes production and sale of agricultural products or fuel. While agriculture was once dominated by dairy farms and while dairy remains the backbone of Vermont's working landscape, agriculture has diversified significantly over the last decade. Cambridge is no exception, as farmers add products or focus their enterprise on what current trends dictate. Given the changing face of farming, future analysis could examine farming trends in Cambridge to guide land use discussions.

According to the Vermont Department of Agriculture, the number of active dairy farms in Cambridge has dropped more than half since 1985. According to the figures, in 1985 the Town had 25 farms, and by 2001 only 13 remained. In 2012, the Department of Agriculture had licensed six dairy farms (cow, goat, or sheep dairies) in Cambridge alone. National and international market forces have forced family farming to either become larger in order to survive or to remain at a very small scale.

Reflecting the decrease in the number of farms, the 2000 Census revealed that only about 4% of Cambridge's employed persons 16 years of age and older worked in Farming, Forestry, Fishing, Hunting, and Mining. This represented 76 residents and is a decrease of 24% from 1990. In 2010, the Census saw a further decline in persons 16 years of age and older working in Agriculture, Forestry, Fishing, and Hunting, and Mining. Fifty-six residents are employed in this industry, representing 2.8% of the population. What should be noted is that many farmers today hold primary jobs off the farm.

While the number of dairy farms has declined, the emergence of new agricultural products has led some to say that Vermont is experiencing an "Agricultural Renaissance." New agricultural products being produced in Cambridge include organic farming, wine making, organic beef, seed and nursery production, and specialty products such as cheese and bread. The growth and popularity of "micro-breweries" in the region may create opportunities for producing hops. Both traditional and emerging agricultural products represent opportunities for Cambridge landowners. During the summer months, a weekly farmers market is held in Jeffersonville. Efforts are currently under way to create an indoor winter farmers market. Cambridge farmers can also utilize new digital tools that connect consumers with local agricultural producers.

The Land

Approximately 13,745 acres (34% of the land area) in Cambridge are considered Primary Agricultural Soils as defined by the Natural Resource Conservation Service. Of these, 3,799 acres are classified as prime agricultural soil, and the rest (9,946 acres) are classified as potentially good soils of statewide importance and are protected from unwarranted development under Vermont's Land Use and Development Law (Act 250). Most of the prime agricultural land in Cambridge is located along the Lamoille River flood plain (see associated Soil Resources Map).

All farms are required to meet Vermont Department of Agriculture Accepted Agricultural Practices (AAPs). These standards are designed to ensure soil conservation and promote water quality. There are also Best Management Practices (BMPs), which are optional but provide a better protection of these resources.

Methods of Agricultural Resource Protection

Use Value Appraisal Program (Current Use Program)

The State of Vermont Current Use Program is a series of four State sponsored tax abatement programs which use financial incentives to encourage agricultural and forestland to remain in production. In each program, the property must remain in agriculture or be managed for forest use to receive tax abatement benefits. The major benefit to the landowner is that the landowner pays property tax on the "use value" instead of the "fair market value" of the property. If the property is developed, the owner pays a land use change tax. So that the Town does not lose property tax revenues, the State of Vermont provides reimbursement to the Town for the difference between the "use value" of the property, and its fair market value.

In Cambridge about 5,000 acres of productive agricultural land were enrolled in the program in 1991. This represents about 12% of Cambridge's total acreage. By 2002 the number of acres enrolled in agricultural current use lands had increased to 6,083 acres. In tax year 2012, 22,361 acres on 150 parcels were enrolled in the current use program. All lands in the programs (lands designated agricultural, forest, and nonproductive) represent about 39% of Cambridge's total acreage.

Purchase of Development Rights

The most well-known group involved in the purchase of development rights is the Vermont Land Trust. In a purchase of development rights, the right to develop or subdivide a parcel is bought by another party. The amount paid depends on the value of the potential development. In this way the farmer or forester receives extra money they need while still retaining the farm or forest. In addition, the property now has a lower appraised value resulting in lower property taxes. The obvious problem with using the purchase of development rights to assist farmers is the cost. In order to protect a large amount of land, one needs a huge sum of money. Also, the landowner must want to sell the rights – all purchases are willing buyer/ willing seller.

Cambridge is fortunate to have a local Conservation Commission to guide purchases in Town. While the Cambridge Conservation Commission does not have adequate funds to purchase development rights or administer easements, it is available to assist residents who wish to conserve their land by helping to facilitate contacts with organizations such as the Vermont Land Trust.

Local Tax Relief for Agriculture

Some communities committed to helping agriculture have taken the bold step of giving property tax relief for land in agriculture. Stowe and Hyde Park are two communities in the region that continue this practice. The program works by offering additional tax relief to land already in the current use program. As education taxes are now State taxes, only the portion of property taxes going towards the municipality can be waived. Cambridge could consider this for both new and existing farms.

Land Use Regulations

Zoning and subdivision regulations are less effective in regulating development of important land resource parcels but are also far less expensive. These types of regulation can guide development to ensure certain goals are accomplished. One valuable tool is Planned Residential Developments (PRDs) where developable lots are clustered to protect open space. This type of flexible subdivision tool allows the same number of developable lots as traditional subdivisions except that it keeps the fields open and forests unfragmented.

The Town of Cambridge believes that clustering is an effective way to preserve open space without impinging upon the rights of property owners. Consequently, the Town encourages clustering wherever feasible.

Other Considerations Related to Agriculture

There are many issues that affect the sustainability of agriculture in Cambridge. Some difficulties can be addressed or assisted locally while others are State or national issues. The future continuation of family farming in Town relies on the efforts of our farmers, local officials, our State Representatives and Senators, and our Representatives and Senators in Washington.

- 1) The price of milk is the most important factor affecting the future of dairy farming. The price of milk is heavily influenced by interstate competition and the Federal Farm Bill. Vermont's Representative and Senators are addressing the issue in Washington, but a permanent solution will need to be found to support farming over the long term.
- 2) Many farms are limited to a single commodity. This makes our local farms susceptible to market fluctuation and contributes to concerns over the long term sustainability. Where farms diversify into hay, wine, specialty crops, and livestock, agro-tourism, sugaring, and other farming ventures, the farm can better weather drops in market prices in one commodity.
- 3) Increasingly, nuisance lawsuits against farmers for normal practices have become a problem. Some new residents to rural communities in Vermont are unfamiliar with "rural" living. The smells and sounds of farming are a sign of spring for many but considered a nuisance for others. Courts have been split over the years and sometimes rule in favor of the new residents over the existing farms. Other factors, such as new residential wells, require farmers to take land out of production. One possible solution is the creation of a formal agricultural district where residential and other non-farming activities will be limited. New subdivisions may also be required to include "right-to-farm" language in subdivision bylaws and deeds.
- 4) The current method by which education is funded in the State is property tax dependent, and this influences the way in which land is used.
- 5) Loss of farmland to development. Of particular concern is the waste of farmland when farmland is divided into large, ten-acre lots. These lots take land out of production because they tend to be too large to mow but too small to farm. Clustering lots or creating small lots allows creation of new housing on manageable sized lots, while keeping fields open and in a single ownership.

While this is far from a complete list, Cambridge recognizes the challenges to keeping farming sustainable. While many of these cannot be solved locally, the Planning Commission, the Conservation Commission and the farming community should work together to find solutions acceptable to all concerned in order to address land use issues surrounding agriculture.

The Future of Agriculture

The community believes that the protection of agricultural resources is key if we are to retain the present character of our community. Land use planning efforts must consider the economic and social factors of agricultural operations. While traditional methods for land preservation can be effective at directing

development away from important farmlands, they do not guarantee that the land will be farmed. A viable agricultural economy should protect the working landscape and the family farm. In addition to farm enterprises themselves, a vibrant agricultural economy relies on the availability of appropriate infrastructure, including roads, utilities, processing, and storage capacity.

There is no way of knowing what farming will look like in ten or twenty years. Over the past decade, it has become necessary for local farms to increase in size. While 300 head of cattle was the exception in 1992, it is now becoming the norm for conventional dairy farms. At the same time, some specialty farms are finding profitable ways of raising herds of 10 head of cattle or less through use of direct marketing and value added products. The Town must remain flexible to the changing face of farming. Any policies that impact farming will need to be reviewed regularly to ensure they do not place an undue burden on the farmer.

Assuming environmental standards are met, the Town of Cambridge recognizes the need for our agriculture to grow and adapt to contemporary economic conditions. Consequently, the Town does not wish to place any municipal impediments to farm operations of various types and sizes.

Forest Resources

Forestland is the dominant land cover in the community - covering approximately 74% of Cambridge's acreage. While the total woodland acreage (28,000 acres) appears to be high, it does not indicate what proportion of that woodland is being managed for productive purposes.

Cambridge's forest resources contribute directly to the economy through the timber industry and the production of maple syrup. Some of the less quantifiable benefits derived from Cambridge's forest resources include habitat for game/non-game species such as deer, bear, and moose; specially adapted plant communities which are important to maintaining wildlife; water resource protection; and recreational opportunities for both residents and visitors. The beautiful colors displayed in the fall are an attraction for visitors who in turn contribute to the local economy.

While much of the forest land in Cambridge is dominated by northern hardwood forest community (which includes maple, birch, and beech stands), there are also stands of large oak, a species more dominant in southern New England, particularly in the North Cambridge area. According to some residents, oak appears to be becoming more common at lower elevations throughout town.

Timber Harvesting

Total timber harvest has declined over the last decade in Lamoille County and the State as a whole. (Town level data is not available.) According to the U.S. Forest Service, statewide increases in the volume of growing stock are twice that of harvesting rates. Past harvesting practices have selectively removed only the highest quality stems (high-grading) resulting in roughly 15% of northern Vermont's growing stock being of such poor quality that it is of little or no commercial value. Long term management, including culling of unhealthy stands, is needed to encourage the regeneration of native species and to improve overall forest quality and value from both economic and ecological points of view.

Wood for Energy

In addition to timber, wood is also harvested for energy. There has been an overall increase in demand for wood energy, recognized at both the commercial and institutional level, with 35 schools in Vermont converting from fossil fuel to the use of wood chips for heating between 1983 and 2008. Personal consumer demands have also increased over the last decade, with one recent study depicting a residential firewood consumption increase from 275,000 cords per year in 1997 to 315,000 cords per year in 2008. Use of wood for

energy represents an opportunity to continue to manage Cambridge's forests despite the poor timber market and lower quality growing stock as some wood that may not be suitable for timber may be suitable for wood chips, wood pellets, or cordwood. As noted in the Natural Resources Section of this Plan, cordwood is a major medium by which invasive species spread. Currently, Cambridge's forests are relatively free of many invasive insects. Better marketing of locally cut cordwood to residents of Cambridge and surrounding communities, as well as visitors to the numerous area parks and resorts could increase opportunities for Cambridge businesses and forestland owners, while also preventing the spread of unwanted pests.

Maple Products

While timber harvesting and the wood products industry appear to be in decline, the use of Lamoille County's forest for maple products is growing. Lamoille County has witnessed a significant expansion within the maple products industry over the past decade, characterized by the growth of existing small and medium scale maple sugaring operations as well as the addition of new operations. Both the number of taps and the total amount of syrup produced in Lamoille County has increased significantly over the last decade (town level data is not available). Lamoille County now produces the second most maple syrup of any Vermont County. Through the Lamoille County Planning Commission's 2011 Forest Stewardship Project, several consulting foresters reported that land previously managed for timber production is now being managed for maple syrup production.

A large portion of Cambridge's forest land is located within the Mount Mansfield State Forest. Under current State policy, land within a State Forest cannot be used for maple syrup production. This is due to the fact that syrup production and timber harvesting have been viewed as conflicting management goals in the past. Traditional sawmills operated on volume and remained profitable by "keeping the saws running." As a result, trees that had been tapped for sugaring were considered unusable as tap holes contained imperfections and made the lower 5-6 feet of a tree unmillable. This may not be the case for more modern, precision mills that produce more specialized products. In addition, there may be a niche market for furniture and turned wood that contains evidence of tap holes. Given the growth of maple syrup production in the region and changes in the timber industry, Cambridge could consider working with the Department of Forest, Parks, and Recreation to begin a test project of maple production on State land.

Forest Product Manufacturing

The forest products industry once employed a much larger segment of Cambridge's population than it does today. Over the last several decades, many of the large sawmills in the Lamoille County Region have closed, including the Bell Gates Lumber Mill, formerly located in Jeffersonville. Currently, much of the timber produced in Lamoille County is exported to Canada for milling. Increasing the amount of forest products processed in Cambridge could provide employment in support industries such as equipment and vehicle services and providers, sawmills and other processing facilities such as wood chippers, pellet manufactures, and other value added manufacturing facilities. It may no longer be economical to operate a traditional sawmill in Cambridge; however, small "backyard" mills, portable mills, fire wood suppliers, and cottage furniture makers and wood turners all represent potential opportunities to create local employment while adding value to raw timber materials produced in Cambridge.

Forest Soils

The NRCS has identified the best soils to support commercial forestry, including many upland soils that are too shallow, rocky, or steep to support other types of development. As a result, primary forestry soils are generally less threatened by development but are more sensitive to site disturbance and erosion. To help prevent soil erosion, the State has adopted acceptable management practices (AMPs) to prevent soil erosion and maintain water quality on logging jobs. The Acceptable Management Practices (AMPs) for forestry in Vermont were first stipulated when the Vermont Department of Forests, Parks, and Recreation developed the 1987 guide

titled “Acceptable Management Practices for Maintaining Water Quality on Logging Operations in Vermont.” Occasionally also referred to as “Best Management Practices,” the AMPs are intended to prevent mud, petroleum products, and woody debris from getting into streams, ponds, lakes, and rivers. AMPs also help maintain natural water temperatures by requiring that trees be left along streams and water bodies. They are scientifically proven methods for loggers and landowners to follow for maintaining water quality and minimizing erosion. While AMPs are voluntary, they have the force of law: a violation occurs when there is a discharge to State waters and the AMPs are not in place. Any foresters in Cambridge interested in obtaining more information or assistance on the AMPs at their sites should contact the Vermont Department of Forests, Parks and Recreation AMP Program.

Methods of Forest Resources Protection

The same tools used for protection of agricultural resources can be used for the protection of forest resources -- Use Value Appraisal, Purchase of Development Rights, and Land use Regulations. In 2002, 13,394 acres were enrolled in productive forestland with an additional 336 productive forestland acres greater than 1 mile from a road. There were also 968 acres of non-productive forestland in the program. As of fiscal year 2012, Cambridge had a total of 146 parcels enrolled in UVA. Of those parcels, 115 were productive forestland totaling 15,435 acres. Thirty-one parcels, comprising 1,098 acres, were non-productive forestland (e.g. deer yards, wetlands).

Considerations Related to the Forest Resource

Forestry is threatened in a similar manner to farming but also has some unique difficulties.

- 1) Large amounts of forestland in Cambridge are owned by the State of Vermont. Various public uses, such as recreation, wildlife management, and timber/maple production, compete for this land. Management decisions of publicly owned land should take into account the needs and interests of the local host community. As such, Cambridge would like more input on management plans related to the Mount Mansfield State Forest and other public lands located in Town. At minimum, State land managers should consider impacts that various uses have on local road infrastructure.
- 2) Encroaching development, especially on ridgelines, is a second issue threatening forestry. These areas tend to be large lot subdivisions which, like agricultural lands, fragment the resource into inefficient sized parcels for management.
- 3) A large quantity of the region’s forest resources leaves the region in a raw form without being processed. Secondary and value added processing of all resource related products add to the overall strength of the economy.

The Future

Increases in local property tax rates decrease the profitability of managing forestland. According to statewide estimates, an average acre of commercial forestland pays \$7.20 per acre in taxes and management costs (\$5.20 for taxes, \$1-\$2.00 for management) while the average annual value of the growth occurring on the same acre equals \$4.50 per acre. The payment made by the State through the Use Value Appraisal program lowers the tax/management cost to \$3.50 per acre allowing for reinvestment in the forestland, thereby increasing its long-term productivity.

About 9,500 acres of productive forestland in Cambridge were enrolled in the Current Use Program in 1991 (about 23.3% of the Town's acreage). As mentioned above, this figure had increased to more than 13,000 acres by 2002 and a decade later increased to 16,000 acres. This rapid growth in participating in the program probably relates to increases in property taxes in Town but also to the overall desire of residents to continue traditions of managing forests.

In the future the Planning Commission may wish to determine the location of most and least productive forest soils and to consider the type of land ownership and parcel size of various tracts in the community. Ownership of forestland (private, public, or private commercial forest owner) and the size of parcels are important considerations in understanding the viability of the resource for continued forest management and production.

Community Facilities and Resources: Objectives, Policies & Actions

- Water Supply Objectives:
 - To provide safe, clear, and abundant water from both public and private sources to Cambridge residents.
- Water Supply Policies:
 - Any development within the Village of Cambridge should not place an undue burden on the water system.
 - All private wells must be drilled in accordance with State water supply regulations.
 - Development within the wellhead protection areas of the public water supplies for Jeffersonville, Cambridge, or Smugglers' Notch Resort or within the isolation distances of a private well must not present a risk of contamination (or loss) of these resources. At minimum, development within these areas shall comply with minimum State wellhead protection guidelines.
 - New development or changes of use that will be served by either the Jeffersonville Water System or the Village of Cambridge Water System shall file an application with the appropriate Village Trustees.
- Water Supply Actions:
 - The Cambridge Village Trustees shall continue to oversee the Village of Cambridge Village Water System.
 - The Town of Cambridge should work in collaboration with the Village of Jeffersonville Trustees to protect the wellhead protection area of the two springs providing water for the Village system.
 - The Town should adopt, within or separate from zoning bylaws, Well Head Protection Area regulations to restrict land uses that present a risk of contamination/loss of public water supplies.
 - Any zoning regulations, if drafted, should require identification of water supplies and provide proof of State compliance.
 - In order to encourage development to locate in close proximity to municipal services and facilities, Cambridge should encourage the access, use, and expansion of existing community water systems within their physical limitations and financial constraints of the rate payers.
 - In order to encourage responsible development in close proximity to municipal services and facilities, The Village of Cambridge should maintain the legal rights to the two springs on private land in South Cambridge. The Village of Cambridge should investigate the potential for these springs to be used to increase water supply for Jeffersonville or Cambridge Village.
- Sewer and Septic Objectives:
 - Cambridge must ensure that all wastewater is properly treated so as to protect public health and the environment.
- Sewer and Septic Policies:
 - All wastewater treatment systems must obtain a State Wastewater and Water Supply permit.
- Sewer and Septic Actions:
 - Consider conducting a feasibility study for a community leach field or decentralized wastewater treatment systems for Cambridge Village.
- Solid Waste Handling and Disposal Objectives:
 - Cambridge's businesses and residents should responsibly dispose of solid waste, including efforts to reduce the amount of waste generated, reuse materials when possible, and increase recycling.
- Solid Waste Handling and Disposal Policies:

- All projects must provide for adequate removal of solid waste.
- Backyard burning of trash is prohibited.
- The Town will support waste reduction and recycling efforts that reduce the volume of material entering the waste stream.
- Solid Waste Handling and Disposal Actions:
 - Cambridge should continue to work with the Lamoille Regional Solid Waste Management District to provide solid waste management services to residents.
 - The Town of Cambridge should study alternative waste disposal options given that only one facility remains for this purpose in Vermont.
 - Implement recycling, composting, and other solid waste reducing measures in all municipal and school buildings.
 - Study the feasibility of locating a recycling or composting facility in Cambridge. Such a facility could be operated by the Town or an independent entity.
- Electric Utilities and Communications Objectives:
 - Electricity, telecommunication facilities, and other utility services should be adequate to support Cambridge businesses and residents.
- Electric Utilities and Communications Policies:
 - Cambridge supports the expansion and enhancement of communication services in Town, including improvements to high speed internet and cellular phone coverage.
 - Wireless telecommunication towers must meet aesthetics standards and other safety requirements as provided in the Town of Cambridge Communications Facilities Ordinance.
 - Support use of online communications and social networking tools to improve communications with Cambridge residents.
- Electric Utilities and Communications Actions:
 - The Planning Commission should review the Communications Facilities Ordinance to ensure the Town's goals are met with respect to telecommunications.
 - The Town of Cambridge should work with the Lamoille County Broadband Committee and Lamoille County Planning Commission to develop and implement plans related to information technology and telecommunications.
 - The Town of Cambridge should continue to maintain the municipal website and investigate other methods of utilizing expanded broadband access to improve communications with Cambridge residents.
- Public Safety Objectives:
 - For Cambridge to have well-trained and adequately funded fire, police, and rescue services in order to provide a safe environment in which to work, live, and play.
- Public Safety Policies:
 - Driveways and private roads shall not exceed eight percent slope so as to accommodate fire and rescue vehicles.
 - Height limitations of 40 feet shall be maintained in all residential construction to accommodate fire and rescue efforts.
 - The Town should enforce the Town of Cambridge Road Standards Ordinance. These Standards should be updated as needed.
- Public Safety Actions:
 - Cambridge should continue to support the fire, rescue, and police services.
 - Cambridge supports regional efforts to provide improved emergency services, communications, and collaboration.
 - The Town of Cambridge and members of the emergency services community should identify

- and plan to address future facility needs.
 - In consultation with public safety providers, Cambridge should support public safety improvements and improve development regulations as they relate to identified safety concerns.
 - The Planning Commission should consider revising the Subdivision Regulations to require fire ponds and/or dry hydrants for larger subdivisions and subdivisions that are located a substantial distance from existing water supplies.
- Health Care Objectives:
 - For Cambridge to have a variety of quality local health care facility and service options.
- Health Care Policies:
 - Cambridge supports the expansion of health care services to meet current and future needs.
 - In order to allow Cambridge residents to remain in town, Cambridge supports the development of elderly housing, assisted living, and nursing home facilities that are compatible with the physical and cultural characteristics of the community.
- Health Care Actions:
 - The Town will continue to support organizations that provide needed health services to all members of the community.
 - The Town should undertake a study to determine the feasibility and potential appropriate locations for elderly housing, assisted living, and/or nursing home facilities to locate in Cambridge. This study could be overseen by the Planning Commission or a special committee appointed by the Selectboard.
 - Flooding has made the Cambridge Regional Health Center inaccessible or forced it to evacuate in the recent past. The Town might consider incorporating this knowledge into its strategic disaster management planning and planning accordingly.
- Cemeteries Objectives:
 - Cambridge's cemeteries should be maintained with respect and dignity and have sufficient capacity to support future need.
- Cemeteries Policies:
 - Any new development adjacent to cemeteries should be sited and, if necessary, screened so not to have a negative aesthetic impact on these public spaces.
 - The Town supports creation of new public or private cemetery space in Cambridge.
- Cemeteries Actions:
 - For the Planning Commission to meet with the Cemetery Commission and four Cemetery Associations to determine future needs and future burial locations as needed.
- Libraries Objectives:
 - To provide high quality library facilities and programs for Cambridge residents and residents of neighboring communities.
- Libraries Policies:
 - Efforts to improve the Varnum Memorial Library facility are supported.
- Libraries Actions:
 - The Town should work with the Crescendo Club Library Association to address needs at the Varnum Memorial Library.
- Recreation Objectives:
 - To provide access to recreational facilities and to develop needed facilities in Cambridge for all of Cambridge's residents.
- Recreation Policies:
 - Support the provision of recreational facilities which meet identified community needs.

- Encourage growth of recreational activities for all ages of people, through both public and privately owned activities
- The Cambridge Recreation Board is encouraged to continue to support youth programs and also to expand its programs to include working adults and elderly.
- Encourage the Cambridge Recreation Board to take a more active role in identifying needs, infrastructure development and maintenance, programming, etc.
- Recreation Actions:
 - Improve recreational infrastructure, facilities, and programming.
 - Review the various roles of various organizations and groups working on recreational issues in Cambridge and examine opportunities for greater collaboration among organizations.
 - Work with the Cambridge Recreation Board and other interested groups in planning for recreational facilities as they relate to land use and development.
 - The Town of Cambridge should work with the Cambridge Recreation Board to improve field maintenance and coordination.
 - Complete planned equipment storage facility.
 - Work to extend Cambridge Greenway Trail to Williamson Road and eventually to Cambridge if possible.
 - The Planning Commission and Recreation Board should develop a Comprehensive Recreation Plan.
 - Improve publicity for recreation facilities and programs.
- Arts Objectives:
 - For the arts to be supported and play an active role in community life.
- Arts Policies:
 - Cambridge supports the location and expansion of art-related facilities and activities.
- Arts Actions:
 - The Planning Commission should work with Cambridge Arts Council and other interested groups in planning for facilities as they relate to the arts.

Community Facilities and Resources Report

A key source for the update of this section is the Cambridge Utility and Facility Report produced by the Lamoille County Planning Commission in 2012. Other sources have been referenced as appropriate. The Town, Village, and other public/private entities provide community facilities and services for the health, benefit, safety, and enjoyment of Cambridge residents and the general public. Careful planning for community facilities and services is essential if local goals and needs are to be met. Inadequate facilities may prevent the Town and Village from meeting existing needs or to accommodate desired growth. Also, they may cause financial burdens and contribute to environmental problems. The facilities and services currently provided in Cambridge are described below.

Planning with a vision that addresses immediate short term issues but also has insight into long term infrastructure needs is essential to provide adequate community facilities. Both privately and publicly owned facilities support the general health and safety of the community.

The overall goal of any community facility or service is to protect public health and safety and improve the quality of life of the community.

Water Supply Facilities and Services

Municipal water systems serve the Villages of Jeffersonville and Cambridge). A private water supply system serves Smuggler's Notch Resort. Those households and businesses not served by these systems provide their own water through private systems (e.g. springs or wells). Section III. Natural Resources, part C Water Resources (of this Plan) includes a discussion of issues related to water quality and supply.

Jeffersonville Water System

The Jeffersonville Water System is under the jurisdiction of the Village of Jeffersonville. Detailed discussion of this system, therefore, appears in the Village of Jeffersonville Municipal Development Plan. Portions of the "Cambridge Junction" area located outside of the Village boundaries are also connected to the system. No additional properties outside of the Jeffersonville Village boundaries may connect to the Village Water System at this time.

The Jeffersonville Water System is fed by two springs. "Spring 101" is located on Road 101 near Smugglers Notch Resort. The second spring, known as "The Edwards Spring" is located in a woodland off Edwards Road. The watershed, wellhead protection areas, and location of the springs themselves are not in public ownership, though there are right-of-way agreements providing the Village with access to the springs. Even so, lack of ownership of the land surrounding the springs creates the potential for development that could potentially undermine the quality of the springs. Development within the wellhead protection area is expected to comply with State wellhead protection rules.

In addition, the Village of Cambridge owns rights to two springs located on private property in South Cambridge. These springs once supplied water for Cambridge Village. Legal deed restrictions regarding use of these springs remain. However, the surrounding land remains in private ownership. In the future, these springs could be used to increase the supply of water available in Jeffersonville or Cambridge Village. To this end, the Village Trustees are encouraged to visit the present legal rights to water and the right-of-way for maintenance to ensure lack of use of the two springs that once served Cambridge will not be considered abandoned property.

Smuggler's Notch Water System

The Smugglers' Notch Management Company presently owns and operates a public community water system serving Smugglers' Notch Resort. The State of Vermont identifies the system as WSID5151. The village section of Smugglers' Notch was developed in the 1960's and has been expanding since that time. The system is regulated by the State of Vermont, and any expansion of the system would require State approval. Smugglers' Notch Management Company approximates that two thirds of the domestic water currently used by the Smugglers' Notch village comes from 8 drilled wells, with the balance coming from a surface source within lands owned by the State of Vermont. This surface water source also provides water for snowmaking purposes and fire protection.

The Smuggler's Notch Water System WHPA is also located in the Town of Cambridge. Regulation of land use within this WHPA is, therefore, the responsibility of the Town of Cambridge.

The Village of Cambridge Water System

The Village of Cambridge Public Water System currently serves businesses and residents located on Route 15, north and south Main Streets, Pleasant Valley Road, Pumpkin Harbor Road, and Old Route 15. There are currently approximately 70 connections to the system. The system uses approximately 18,000 gallons of water per day and has a reserve capacity of approximately 100,000 gallons in its reservoirs. Poor soils for sewage service have limited the addition of structures for residential or commercial purposes resulting in little demand for growth in this water system.

The current distribution system was installed in 1975. Mains are depicted on Map 5. The system consists of 84,000 feet of 8 inch PVC mains. Due to the fact that the wells are located at elevations significantly above the service area, no pump stations are required. The system is entirely gravity-fed and maintains a pressure of approximately 70 PSI. There are a total of 15 fire hydrants on the system. However, the Fire Department has noted that the system may not have enough reserve capacity to extinguish a large fire and that additional water would likely need to be shuttled in, particularly if a fire involved multiple structures.

Water is provided to the system by two wells. The main well is located on Bartlett Hill. The well is capable of yielding over 100 gallons per minute. However, the well is limited to 25 gallons per minute in order to minimize negative impacts on private wells located on Bartlett Hill. A backup well is located off Pumpkin Harbor Road. This backup well yields approximately 65-70 gallons per minute. Due to the quality of the well water, no chlorination is required.

The Village of Cambridge owns property surrounding both wellheads. The Village owns approximately 7 acres near the Wrong Way Bridge in the vicinity of the Pumpkin Harbor well. The Village also owns 48 acres containing the well head protection area of the Bartlett Hill well. In addition, the Village owns approximately 68 acres of forested land surrounding the system reservoir located on the hill south of Cambridge Village. Given that the primary purpose of all the properties is to ensure protection of the wellheads and reservoir, they are not actively managed for forestry or recreation.

Private Wells

All homes and businesses not served by a public water system are served by private wells. Private wells serve most residents living outside of the two Village areas. Private wells must be drilled in accordance with Environmental Protection Rules (EPRs) established by the State of Vermont Department of Environmental Conservation. The most recent EPRs can be found at the link below:

<http://www.anr.state.vt.us/dec/rulesum.htm>

Sewage and Septic Facilities and Services

There are two wastewater treatment facilities in Cambridge; one that is owned by and serves the Village of Jeffersonville and one private facility owned by Smugglers' Notch Management Corporation, serving Smugglers' Notch Resort. The remainder of the Town of Cambridge and the Village of Cambridge septic systems are privately owned. The Cambridge Health Officer is responsible for carrying out Town ordinances that address health issues related to septic systems.

Permitting of septic systems, leach fields, and wells is now a process that is performed on the State level. To comply with the State regulations individuals must apply for a wastewater and potable water supply permit from the Department of Environmental Conservation (DEC). Concerns or discovery of a failed system should be referred by the local health officer to the Department of Environmental Conservation. DEC is available to provide guidance to maintain healthy septic systems.

Jeffersonville Wastewater Treatment Facility

Since the Jeffersonville Wastewater Treatment Plant is located within the Village of Jeffersonville, most factors related to it are outside the jurisdiction of this Plan. However some aspects do have the potential to affect the Town and Village of Cambridge. There are currently no extensions of sewer lines outside of the Village limits.

The Jeffersonville Sewer System has a total capacity of 77,000, gallons per day (gpd). On an average day, the system currently treats between 30,000 and 40,000 gpd. About 50%-60% of the system's capacity is currently unused; meaning, based on a conservative estimate, about 35,000 gpd is available for future development. This represents a significant opportunity for new development within the Village and Service Area.

It may be easier to understand this unused capacity by visualizing it in terms of how it could be used for future development. A three bedroom single- family home uses approximately 420 gpd. Therefore, the system has enough unused capacity to serve approximately 83 new three bedroom homes. Of course, Jeffersonville contains many uses other than single-family homes. When measured in terms of employment potential, there is enough unused capacity to serve approximately 2,328 new employees in retail or office type businesses.

Wastewater Considerations

- 1) The Lamoille River receives the outflow from the Jeffersonville Wastewater Treatment Plant. The outflow pipe is located where Route 15 crosses the river in Jeffersonville. At this time no problems with the outflow have been identified; however, should there be problems in the future, there could be an impact on the Town and Village of Cambridge.
- 2) At the present time Jeffersonville is faced with a difficult facilities problem. The water supply distribution system in the Village is in need of upgrades. At the same time, the wastewater treatment plant has significant excess capacity. The cost of this excess capacity is borne by current uses, which may create a financial burden. While these systems are outside the jurisdiction of the Town, the present situation may channel growth outside of the Village into other parts of the Town.
- 3) Access to municipal water and wastewater treatment is often considered by businesses when they choose to develop, relocate, or expand their operations. Some businesses, especially in the manufacturing and food service sectors, rely on these services.

Providing local employment necessitates maintaining adequate facilities. Future growth in areas with moderate concentrations of population, like Jeffersonville and Cambridge Village, may be hampered by inadequate facilities.

Smuggler's Notch Resort Wastewater Treatment Facility

Smugglers' Notch Management Company owns and operates a secondary wastewater treatment system with spray disposal to service all of Smuggler's Notch Resort facilities and homes. The system is rated to treat 167,800 gpd but is limited by disposal capacity to 165,205 gpd. The Smugglers Notch Resort Wastewater Treatment Facility also utilizes a "Living Machine" located inside a greenhouse structure. The Living Machine utilizes natural processes such as soil plant root structure to treat wastewater. Approximately 46% of the Resort's annual wastewater is treated by the Living Machine.

The system is regulated by the State of Vermont Department of Environmental Conservation Wastewater Management Division, permit #ID-9- 0024. The streams which receive flow from the spray site are regularly monitored for both chemical and biological parameters. The system has an excellent long term compliance record.

Cambridge Village

Most businesses and homes in Cambridge Village are currently served by private septic systems. Due to the age of homes and small size of lots in Cambridge Village, it is possible that some residents would have difficulty installing a modern system that complies with current environmental regulations should they need to replace or expand their existing septic systems. Given the cost and permitting involved in constructing a centralized, public sewer such as the one in Jeffersonville, it is unlikely that a similar system will be constructed in Cambridge Village. As an alternative to such systems, some communities have constructed community leach fields that serve numerous residents and businesses. An example (albeit an older system) can be found in the Village of Hyde Park. Soils on the north side of Cambridge Village may be favorable to this approach. Often, community septic systems and leach fields are part of a "decentralized" approach to wastewater treatment in which lots that cannot support onsite septic connect to the community leach fields, while some larger lots maintain private septic systems. Funds for feasibility studies for decentralized wastewater treatment are available from the Vermont Department of Environmental Conservation. (See <http://wastewater.vt.gov/>)

Private Wastewater Disposal

With the passage of new State laws put into effect in 2006, all new construction must have an approved State Wastewater Disposal permit before any construction may begin. All questions regarding septic construction and wastewater disposal should be directed to the Department of Environmental Conservation within the Agency of Natural Resources.

Solid Waste Handling and Disposal Facilities and Services

Cambridge is a member of the Lamoille Regional Solid Waste Management District which is responsible for waste management policies within the District. A transfer station is located on the site of the former Cambridge Landfill for the collection of solid waste and recyclables. Recycling is mandatory for all residents and businesses within the Town and the District. The Town of Cambridge operates the Transfer Station and engages with a private contractor to perform the work and activities associated with the Station. The materials collected at the Transfer Station are transferred to other licensed facilities for ultimate disposal or processing. Residents may pay a private hauler for pick up at their home rather than taking their refuse to the Transfer Station.

In 2012, the Vermont State Legislature mandated recycling and composting of food waste. By 2022, all food waste generated in Vermont will be required to be composted. Some large, institutional producers will be required to compost their food waste at an earlier date. There may be opportunities to create a public or privately operated composting or recycling facility in Cambridge.

Electric Utility Facilities and Services

Two electric utilities provide services in the Town and Village of Cambridge. Central Vermont Public Service Corporation, now owned by Green Mountain Power Company, provides service in the Village of Jeffersonville and portions of the Town and Village of Cambridge. Vermont Electric Cooperative provides service in the remainder of the Village of Cambridge and the Town of Cambridge. Section IX. Energy (of this Plan) includes a complete discussion of electric facilities and consumption within the Town.

Communication Facilities and Services

Communications once involved a single telephone company, some radio and television stations, and newspapers. Today there are satellite and cable TV providers in addition to digital TV broadcasting. Hard-line phone service has competition from cellular services, and newspapers compete with the broadband access to the internet for news, culture, and social media. The availability of high-speed Internet access and other information services is vital to businesses and to attracting more.

Telephone and Cellular Service

Consolidated Communications (formerly Fairpoint) owns land and buildings in Cambridge and maintains telephone lines and broadband service in the area. Long distance service is available from all major telephone companies. Cellular service provided by AT&T and Verizon is now widely available in town and in outlying areas; however, service is still not available in some areas due to terrain.

Cable and Satellite Television

Jeffersonville Cable TV Corporation owns buildings, structures, and antennae in Cambridge and provides service to the Village residential cores. Satellite television service is generally available to anyone in the area.

Data Communications and Broadband Internet Service

Dial up internet service is available through telephone lines. There are multiple primary local broadband Internet service providers: Consolidated Communications, Comcast, Stowe Cable, Verizon and AT&T and VTEL. Despite recent expansion of broadband service due to Federal and State initiatives and grants, in some areas Internet access is still only available through a dialup service (telephone line), or via satellite.

Radio and television broadcast

Broadcast service is available depending on location within the hills and valleys. The elimination of analog service (frequencies are now used for 4G LTE cellular service) in favor of digital broadcasting has improved quality of signal but has reduced availability of service due to terrain masking. Many households now rely on cable, satellite, or broadband internet for television service.

Newspapers

The closest paper with a daily circulation is the *Burlington Free Press*. The Free Press provides limited coverage to events in Lamoille County. Within the County there are two weekly papers -- the *News & Citizen* and the *Stowe Reporter*. The *News & Citizen* is the Town of Cambridge newspaper of record for the publication of official notices. The *Stowe Reporter* reports on events in the region although the focus is primarily on events and news within the Town of Stowe.

Public Safety Facilities and Services

Law Enforcement

The Vermont State Police are the primary law enforcement responders to complaints in Cambridge. The Town

has the option of backup services from the Lamoille County Sheriff Department.

Fire Protection

The Cambridge Fire Company, Inc., is a volunteer department organized in 1952 as a private, nonprofit corporation to serve Cambridge. The Town of Cambridge owns the equipment and facilities. In addition to Town appropriations from Cambridge and Fletcher, the Department conducts its own fund raising activities.

The Cambridge Fire Company primarily provides fire protection, heavy rescue, and hazmat response. It also provides valuable assistance during flooding, search and rescue, and when there is extensive storm damage. The Company provides primary response Fire Coverage to Cambridge (including the two Villages), and about half of Fletcher. Backup coverage is exchanged through agreements with surrounding Fire Departments. For heavy rescue coverage the Department is the primary responder for all of Cambridge. If requested, they cover other nearby towns.

The fire station is located in the Village of Jeffersonville. A new facility was built in 2012. This facility should provide for extended expansion for the next several decades. The Fire Department continues to regularly upgrade equipment and has maintained a capitol plan for over 20 years on truck replacement, facilities, and major equipment needs.

Rescue

The Cambridge Rescue Squad is a volunteer organization which provides full emergency response and medical transport service. They work in close association with the Cambridge Fire Department.

Cambridge Rescue operates out of a converted residence built in the 1960s. It has occupied this building since 1996. The building contains approximately 1,000 square feet of office space. The Cambridge Emergency Operations Center (EOC) operates out of the building.

Emergency Communications

All emergencies are reported using the 911 system provided through the County Sheriff's Office. Communication between municipal emergency services has been difficult due to the different systems and frequencies used.

Rapid Response Planning

Beginning in 1995, as a result of severe flooding, Lamoille County began an effort to improve coordinated responses to disasters. Improved emergency communications continues, including hazard mitigation to prevent future damage from occurring in a disaster. The Town of Cambridge is participating in these efforts and should continue to in the coming years.

Public Safety Considerations

- 1) As the Town's population, number of second homes, and commuters continues to increase, the community's crime rate can be expected to increase. The need for greater police protection will have to be addressed.
- 2) The Fire Department reports that some development in town cannot be suitably accessed with existing firefighting equipment. Also, some larger developments are not including facilities which would aid in firefighting such as fire ponds or dry hydrants. Minimum fire safety access standards should be developed.
- 3) There is a limited pool of volunteers for public safety services such as fire and rescue, especially during daytime hours. This issue will need to be addressed as Cambridge continues to grow.

Health Care Facilities and Services

Cambridge Town is home to a Federally-funded regional health clinic. Additionally, a variety of private health-related businesses operate in Town. A list of Medical Services and other Social Agencies in the County is available from the Lamoille County Planning Commission and on their website at www.lcpcvt.org.

There are four primary care hospitals near Cambridge:

- Copley Hospital in Morrisville
- Northwestern Medical Center in St. Albans
- Fanny Allen Hospital in Winooski
- UVM Medical Center in Burlington

The Cambridge Regional Health Center

The Cambridge Regional Health Center is a tax-exempt organization providing primary health care services for Cambridge. The Health Center has been operating since May of 1977 and is located in the Village of Cambridge.

Long Term Care

Cambridge does not currently have an assisted living facility or a nursing home. Community members requiring these levels of care must leave the community in order to acquire these services.

Cemeteries

There are nine cemeteries and at least two undelineated family plots in the Township of Cambridge and villages of Cambridge (Boro) and Jeffersonville.

The town oversees seven of the cemeteries via the Cambridge Cemetery Commission:

- The North Cambridge Cemetery, Pollander Rd., which does not receive funding from the town, but, rather, funds itself through its own Perpetual Care funds. The North Cambridge Cemetery currently has lots available for purchase through the Cambridge Cemetery Commission. This cemetery boasts being the resting place of an African American tragically killed in 1807 in an accident involving a horse and wagon- a memorial stone for him also sits on private land off North Cambridge Rd.
- The South Cambridge Cemetery, Edwards Rd., which dates back about 200+ years also does not receive funding from the town and funds itself through its Perpetual Care funds. This cemetery has no available lots.
- The East Cambridge Cemetery, Route 15 east of Jeffersonville, is funded through the town and is also closed.
- The Smilie Cemetery, within the Miller farm on Rt. 109, receives its funding from the town and is closed.
- The Hopkins or Valley Cemetery, Bryce Road, dates back to 1811 or later and is one of the three smallest cemeteries and is funded by the town. It, too, is closed.
- The Gates Cemetery, located on the Boyden vineyards at the intersection of Routes 104 & 15, is the smallest of the cemeteries and visually noteworthy because of its location.
- The Giddings Cemetery, Route 104 west of Cambridge village, is a settlers' cemetery and in the process of being brought back to state codes after having been overlooked for many years. It is hoped that funding will be available for this multi-year project from the town, which funds this cemetery. This cemetery is also closed.

The town of Cambridge does not oversee two other cemeteries in town, which are still managed by their own Cemetery Associations, which are not-for-profit corporations that raise funds and maintain the cemeteries themselves on a day to day basis:

- The Jeffersonville Cemetery, Jeffersonville Village, is overseen by the Jeffersonville Cemetery Association and still has plots available for sale through the association.
- The Mountain View Cemetery, Bartlett Rd. and also called the Settlers' Cemetery, is run by the Cambridge Cemetery Association and neither receives funds from the town nor has lots for sale.

Library

The Varnum Memorial Library was initially established in 1898 and is administered by the private, non-profit organization, The Crescendo Club Library Association. The Library is funded through fund raising activities, some endowments, and Town of Cambridge support. The Library is located within a one-story structure constructed in 1938 on Main Street in Jeffersonville. An addition was added to the rear of the building in 2006. The Library's collection includes about 5,500 items, including books, audio books, DVDs, etc. In addition to holding and distributing books, the Library hosts community events such as author's visits and workshops. About 7,500 patrons visit the Library each year. In addition to serving Jeffersonville and Cambridge, the Library also has patrons from surrounding communities such as Waterville, Belvidere, and Fletcher. The Library is equipped with several public computers and is a Wi-Fi "hot spot" which provides free internet access to the public.

Recreation

The Town of Cambridge has natural opportunities for recreation that are owned and operated by the State of Vermont, the Town of Cambridge, and private entities.

Community members volunteer their time and energy to create and maintain many of the present recreational activities that are available within our community. Those volunteers play a large role in the creation and maintenance of the recreational opportunities that have become a part of the identity of Cambridge.

The Cambridge Recreation Board consists of nine members appointed by the Selectboard. They arrange recreational programs, at this time, primarily for elementary aged children and some high school level age groups.

The Cambridge Recreation Board does not own any facilities. Thus it arranges with the School Board for the use of their facilities. It arranges for the use of privately owned facilities as well. The Board continues to work to develop recreational facilities in the community. Good sites for such development are limited and must compete with other forms of development.

Cambridge Recreation Fields

The Town of Cambridge owns several recreation fields located between the Brewster River and Cambridge Elementary School. The fields are managed and maintained by the Recreation Board. The fields include:

- The Williamson Field, which was donated by the Williams Family, and is located next to the Town Garage. The field is primarily used for soccer and lacrosse.
- A baseball field with two dugouts. This field is also used for soccer.
- The "lower fields" which are also predominately used for baseball in the spring and soccer in the fall. During the winter, an Ice Rink is installed on the lower fields by the Cambridge Rotary.

A small shed located on skids is used for equipment storage. Currently, much of the equipment used by recreational programs is stored at private residences or in rented storage space. The Recreation Board intends to construct a larger, more permanent storage shed between the baseball field and the Town Garage.

Additional areas/facilities that offer recreational opportunities, include:

- Cambridge Community Center located in Jeffersonville Village (offering a variety of indoor and outdoor recreational options)
- The Smugglers Notch Scenic Highway and State Park (hiking, rock and ice climbing, skiing, biking, fishing in Sterling Pond, etc.)
- Brewster and Lamoille Rivers (swimming, fishing, paddling). Points of special interest include:
 - Brewster River Gorge Park
 - “Irish Springs” (and other swimming holes along Brewster)
 - Lamoille Access Points (near the intersection of State Routes 108 and 15)
- Local Trail Networks
 - Alden Bryan Brewster River Trail
 - West Farm Trail System (hiking, running, horseback riding) Smugglers’ Notch-Notch and Resort
 - Pleasant Valley mountain bike trails
 - Madonna Vasa Trail (hike, ski)
 - Cambridge Greenway Path (walking, running, biking, playing)
 - VAST Trail (snowmobiling)
- Playgrounds
 - Field by Cambridge Health Center (baseball/ softball)
 - Cambridge Village “Fire House Park” -- A small, 0.5 acre park located behind the Cambridge 360 recycling center building is owned by Cambridge Village. The parcel contains a swing set and small playground.
- Smugglers’ Notch Resort (skiing, snowboarding, snowshoeing, skating, hiking, swimming, zip-lining, tree top adventures, disc golf)

Local Business

Local businesses have been built to offer recreational opportunities to the public. Recreational business in the Town of Cambridge should be encouraged for the economic and physical health of the community. The Town of Cambridge presently has the following types of outfitters: Snowmobiling, canoeing, dogsledding, horseback riding, wagon and sleigh rides, fishing, and dance.

Recreational Planning Needs in Cambridge's Future

Concerns have been expressed regarding the limited age group served by current programs. At this time there are no programs serving adult recreational needs, and there few programs addressing high school age recreational needs. In the future, a comprehensive plan for the adequate provision of recreational activities for a wide variety of users is needed.

The Arts

The Cambridge Arts Council (CAC) is a local non-profit organization that sponsors events, artists, workshops, and discussions on the arts. CAC was integral in getting Lamoille North Supervisory Union to continue development of a standards-based pre-kindergarten through grade-12 art education curriculum for the district.

CAC receives funding through grants, fund raising, and with corporate sponsorship and membership. One third

of funding comes from Town appropriation. A majority of events have no set admission but request donations which cover approximately one third of the cost.

Cambridge is fortunate to have such a healthy and active local arts council. The planning commission should meet with CAC to discuss future facility needs and other ways that the Town can support the arts and CAC.

Educational Facilities and Services: Objectives, Policies & Actions

- Objectives:
 - In a fiscally responsible manner, provide for a comprehensive educational experience for all students in a physically and emotionally safe, stimulating, and supportive environment.
- Policies:
 - Maintain and enhance facilities for a variety of academic, athletic, social, cultural, and community activities.
 - Manage residential growth in a planned, graduated, and predictable pattern and at a level consistent with the Town's fiscal capacity to accommodate its impact on the education system. Maintain a matrix of estimated students based upon current rate of housing growth to plan for corresponding costs of education.
 - Future design of educational facilities should consider community needs and multiple uses subject to the State of Vermont Education Funding Formulas and restrictions on education spending.
 - Cambridge encourages efforts to improve the safety of children walking and or riding their bikes to school.
- Actions
 - Representatives and Senators representing Cambridge should work to ensure State of Vermont education funding formulas are equitable towards Cambridge residents and businesses.
 - For school transportation safety, Cambridge should enact an ordinance ensuring that all road signs, including those on private roads, meet Federal Manual on Uniform Traffic Control Devices (MUTCD) standards.
 - The Planning Commission and Select board should solicit input from the School Board on all Act 250 development projects that may have an impact on educational facilities
 - The Planning Commission should work with School Boards to share information to better understand how to address impacts created by increased residential growth.
 - Work with the School District to define highest priority road crossings for students on Route 108, Route 15, and other State Highways.
 - Continue with upgrading school related crosswalks and signs to improve safety and enhance visibility to motorists.
 - Continue with upgrades to the pedestrian infrastructure in Jeffersonville to support children walking to school.

Educational Facilities and Services Report

This report is drafted from an amended version of the Town and Village of Cambridge Municipal Development Plan 2003. Other sources have been referenced as appropriate.

Land use decisions that affect future growth have significant implications for educational services and their related costs. The Planning Commission must coordinate planning decisions with the School Board and Selectboard to avoid adverse fiscal impacts on the Town.

Educational Facilities and Services

Administration

Students in pre-school through sixth grade attend classes at Cambridge Elementary School in Jeffersonville (Cambridge School District jurisdiction). Seventh through twelfth grade students attend classes in Lamoille Union High School in Hyde Park (Lamoille North Modified Unified Union District jurisdiction). Cambridge students attending vocational classes go to the Green Mountain Technology and Career Center, also located in Hyde Park. All are in the Lamoille North Supervisory District, with offices in Hyde Park.

The Cambridge Elementary School Board is a five-member elected board whose vision is “Equity, Access and Opportunity” for all students.

The Lamoille Union High School Board disbanded in 2017. Oversight of the LUHS, LUMS and GMTCC is now under the jurisdiction of the LNMUUSD. Included under that board are the elementary schools in Belvidere, Eden, Hyde Park, Johnson and Waterville.

Act 46

The passage of Act 46 in 2015 led to the creation of the Lamoille North MUUSD. This single district contains the towns of Belvidere, Eden, Hyde Park, Johnson and Waterville. Cambridge voters elected not to join the merged district, once in April 2016 and again in March 2017. In May 2018, the Acting Secretary of Education recommended to the State Board of Education that Cambridge Elementary join the Lamoille North MUUSD. The State Board will make a final statutory decision in November of 2018 on the governance of Cambridge Elementary.

In the event that Cambridge joins LNMUUSD, it will take effect July 1, 2019. The Cambridge School Board will then disband by December of 2019. Oversight of Cambridge Elementary will subsequently fall to the LNMUUSD Board, which is an 18-member board, with proportional membership. Cambridge currently has five representatives.

School Enrollment

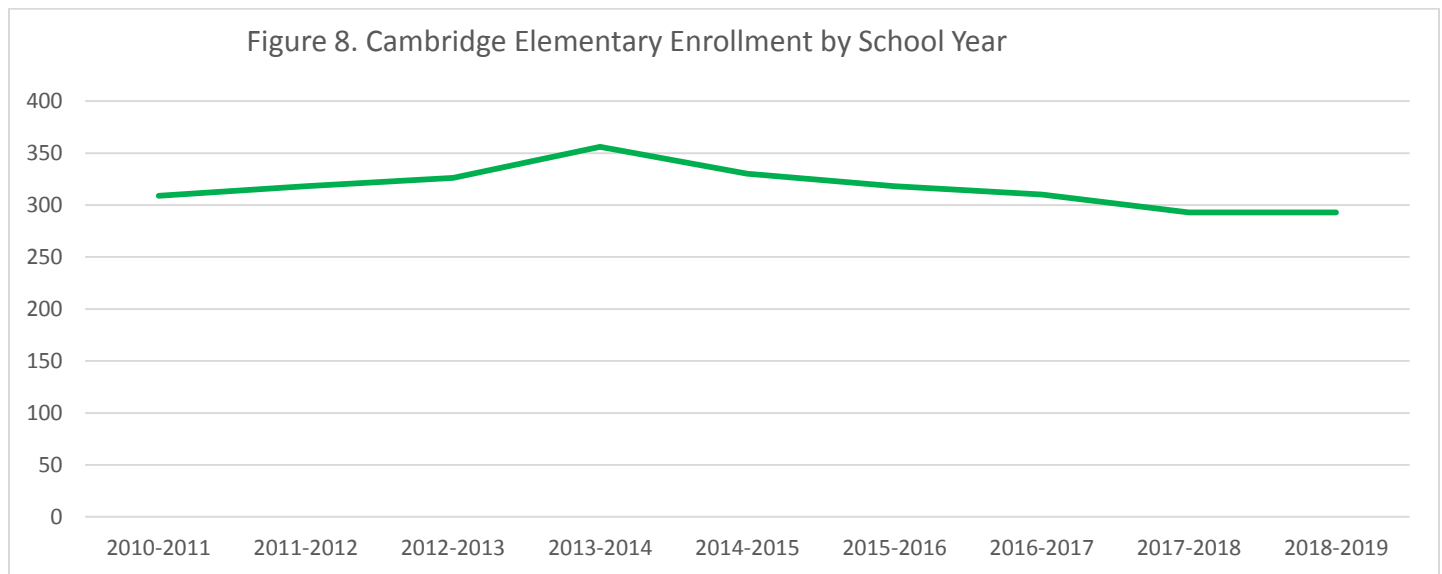
Please note for the most up to date enrollment information please reach out to Cambridge Elementary School Administration. The CES web site is: <http://www.cesvt.net/>

Between 2010 and 2018, the total enrollment at the Cambridge Elementary School rose to a peak of 356 K-6 students in 2013-14 before dropping to its current enrollment of 293 K-6 students (see Table 10). Note that the early part of the 2010's differed from statewide trends of declining enrollments, while the later years have shown a return to common statewide trends.

Table 10. Cambridge Elementary School K-6 enrollment by school year

2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
309	318	326	356	330	318	310	293

Source: Cambridge Elementary School enrollment data



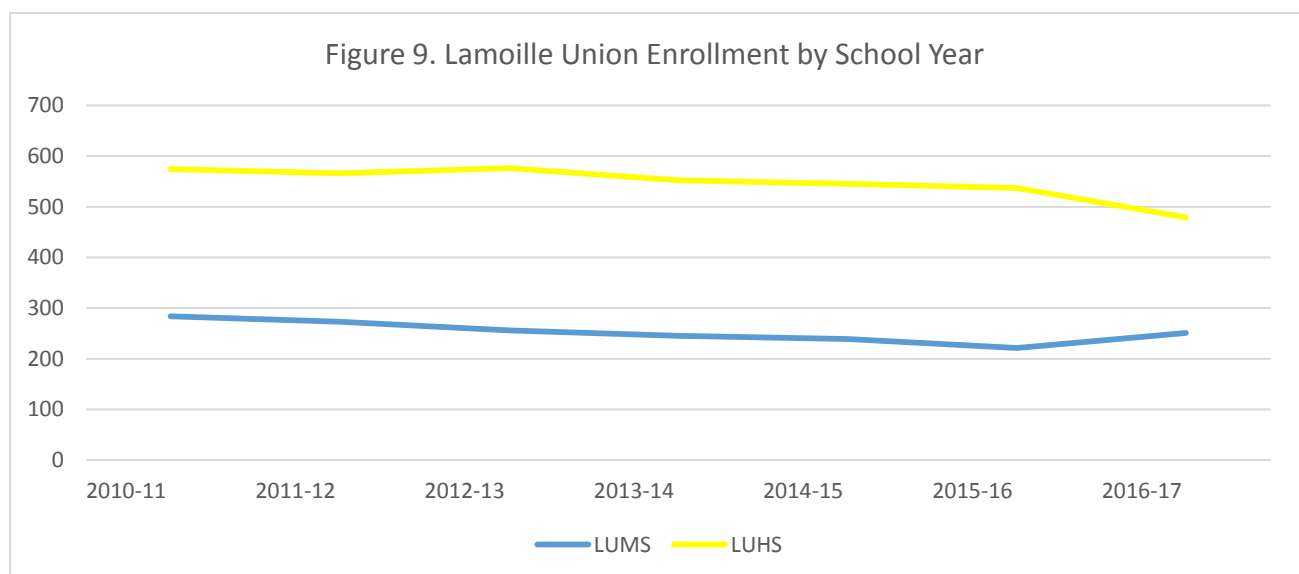
Source: Cambridge Elementary School enrollment data

The total school enrollment for Lamoille Union High School began the decade relatively flat enrollment year-to-year, but over the last five years has seen a significant decrease, resulting in a 24% drop in enrollment from 2010-11 to 2017-18 (see Table 11).

Table 11. Lamoille Union Enrollment by School Year

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
LUMS	284	273	256	245	239	221	251	275
LUHS	574	566	576	552	545	537	479	437

Source: Vermont Department of Education Enrollment Report



After a slight dip, enrollment in lower grades at the Cambridge Elementary are projected to rise slightly. Following this bubble through the higher grades over the next few years should lead to a steady or slow increase in student population.

Table 12. Cambridge Elementary School enrollment by grade

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
K	56	45	62	60	47	43	35	39	45
First	54	55	49	62	53	47	44	32	39
Second	45	56	54	49	52	45	46	40	32
Third	38	46	53	54	47	47	49	44	40
Fourth	35	36	41	53	46	46	46	48	44
Fifth	47	33	37	41	50	44	47	44	48
Sixth	34	47	30	37	35	46	43	46	45
Total K-6:	309	318	326	356	330	318	310	293	293

Source: Vermont Department of Education Enrollment Report

Facilities and Services

Cambridge Elementary

The Elementary School buildings are all located on the School District's 6.15-acre parcel in Jeffersonville. Recreational facilities, including school ball fields, are located on an adjacent 3.0 acre parcel. The Cambridge Elementary School is made up of three connected buildings, ranging in age from 15 to 80 years old. The combined square footage of the buildings is about 51,600 square feet. Between 2000 and 2002, the Town conducted a series of assessments to examine the need for expanding the elementary school. The building was renovated in 2005.

Efficiency Vermont conducted an energy audit of the building in 2010. This audit found that Cambridge Elementary School is one of the most efficiently built and operated schools that Efficiency Vermont has visited.

Lamoille Union High School

The High School facilities are located on a 56.2 acre parcel in Hyde Park. When it was built in 1965, the building was designed to serve 800 students. A new middle school facility was added on site in 2002 to accommodate the growing student population. The facilities should now be adequate to accommodate increased students for the coming years.

High school juniors and seniors, as well as a limited number of adult learners, also have access to career training and educational opportunities at Green Mountain Technology and Career Center (GMTCC) located on the same campus as Lamoille Union Middle and High School in Hyde Park. GTMCC offers technical programs in thirteen areas of study and is accredited through the Association of New England Schools and Colleges. Programs include forestry and land management, automotive technology, culinary arts, HVAC, and other technology/career focused courses of study.

Transportation

The Elementary School District continues to own its own buses. They are used for transportation to and from the Elementary School and to transport the High School students to the Union High School and GMTCC in Hyde Park on a contract basis.

With the passage of Act 156 in 2012, Transportation oversight moved from the individual school districts to the Supervisory Union. Bus drivers and the bus coordinator for Cambridge are since employed by LNSU. Expenses for transportation are charged back to Cambridge Elementary in the LNSU assessment. Issues have been raised regarding the amount of time students are spending each day on buses. The dispersed development occurring in the district contributes to this. As more families live farther out in the rural areas, transportation costs and the time spent riding on the bus increase. According to information provided by the School Board, buses begin to pick up elementary school students at 6:50am and arrive at school by 7:30 am. Some students spend nearly an hour on the bus each way. Some high school students were spending an hour and a half each way riding the school bus. It is estimated that each individual bus stop requires at least 30 seconds.

Locating new development closer to Village and Growth Areas (see Land Use section) would reduce school bus travel time for students living in those developments. Encouragement of clustered type development patterns would reduce the length of new roads needed to be served by school buses. Tightly clustered development, such as condominium, cottage, and townhouse style development, could be served by common bus stops. Such changes in the development pattern could begin to address rising transportation costs and the continued increase in time students spend in transportation

Safe Routes to School

Cambridge Elementary School is located in the Village of Jeffersonville and is in walking distance for many residents of the Village and nearby areas of the Town. In addition to the health benefits of walking to school, mild exercise such as walking can improve a student's concentration and educational performance. Unfortunately, despite the School's location, students face several barriers to walking to school.

Previously, there were no sidewalks along School Street or Carlton Avenue. At 2017 and 2018 Town Meetings, the town approved money for new sidewalk construction. A planned project for summer 2018 will include new sidewalks connecting Main Street and the school along both School Street and Carlton Avenue. The project also includes repaving the affected streets, the school parking area, and the school bus lanes. The new sidewalks will eliminate one impediment for student pedestrian traffic in the village.

Another impediment is that there aren't marked or controlled crossings on Route 15. As a result, it is unsafe for students living north of Jeffersonville or outside the Village to walk to school. While there are existing crosswalks on Church Street and Main Street, the markings of these crossings could be enhanced. VTrans approval must be granted before new crosswalks are created on State highways. This approval is only granted if "warranted" by a substantial number of existing pedestrian crossings or if the crossing has been identified as an important walking route to school by the local School Board.

In addition to these infrastructure barriers, some parents have expressed concern about the safety of children, especially those in the younger grades, walking to school unsupervised. Formal supervision by parent and community volunteers and school staff may be necessary to allay this concern.

Population, Housing Growth and Total School Enrollments

During the 1980's, Cambridge and Eden were the fastest growing communities in the LUHS District in terms of

overall population growth. Through the 1990's Cambridge had the greatest increase in population with 519 new residents. Cambridge, therefore, contributes more students to the High School than other towns in the district and is also the fastest growing community.

Since Cambridge is located close to the St. Albans and Burlington/Essex employment centers, it serves as a bedroom community for those areas. Access to employment, combined with the recreational opportunities in the community, make it a desirable place in which to live and raise a family.

Classroom space will need to be reorganized in order to accommodate changing population patterns. For example, one of the special education resource rooms will be relocated, and the computer lab will become mobile. If enrollment continues to grow at similar rates, additional changes may be needed.

Post-Secondary and Adult Education

In addition to GMTCC, which offers multiple courses eligible for college credit, Northern Vermont University (formerly Johnson State College) in neighboring Johnson offers a variety of graduate and undergraduate degree programs, along with other continuing education services. The Community College of Vermont (CCV) also operates a campus in Morrisville, offering Associate Degrees, certificate programs, and online instruction in various pre-professional concentrations. Finally, additional adult educational opportunities are available through Central Vermont Adult Basic Education (CVBAE) in Morrisville, which offers instruction for students that are not enrolled in public schools.

Early Education and Child Care

Early education has been shown to be critical to the future success of children in school. There are a variety of early care and educational opportunities available to residents of Cambridge. The Lamoille Family Center (LFC) offers a range of early education services through a coordinated service network known as Children's Integrated Services (CIS). Programs offered through this network include Maternal Child Health, Early Childhood and Family Mental Health, and the Early Intervention Program for children with developmental delays.

The availability of childcare is a critical concern for parents in the workforce. Building Bright Futures, a program of the Vermont Department of Children and Families operates an online childcare directory. (see www.brightfutures.dcf.state.vt.us.) As Cambridge continues to grow, additional home and center based childcare facilities may be needed.

Public Pre-Kindergarten opportunities continue to expand for families with children ages 3-5. Act 166, passed by the Vermont legislature in 2014, entitles all three, four, and five year-olds not enrolled in kindergarten to ten hours per week of publicly funded Pre-Kindergarten education (Pre-K) for the thirty-five week school year. In addition to the Pre-K program at Cambridge Elementary School, the district partners with prequalified private childcare programs to offer high quality Pre-K opportunities at 16 locations in Chittenden and Lamoille County.

Transportation Facilities and Services: Objectives, Policies and Actions

- Objectives:
 - To provide for safe, cost and energy efficient, and flood-resilient transportation infrastructure, including signage for vehicular and non-vehicular use.
- Policies:
 - Maintain and manage local road infrastructure in accordance with [Town Highway Standards](http://townofcambridgevt.org/document/town-of-cambridge-highway-standards-ordinance/). <http://townofcambridgevt.org/document/town-of-cambridge-highway-standards-ordinance/>
 - Maintain scenic quality of roads and adjacent landscapes as described in the Scenic Resources section of the plan.
 - When planning for a new road or resurfacing an existing road, consider needs of all potential users and design accordingly. For example, to accommodate bicyclists and other non-motorized users, consider incorporating wide road shoulders, bike lanes or shared travel lanes.
 - Support initiatives that expand multimodal transportation infrastructure.
 - Engage in initiatives that result in safe pedestrian travel.
 - New development should incorporate pedestrian connectivity into design plans, particularly when in proximity to Village and Growth Areas.
 - Decrease transportation energy and/or carbon-emitting use by supporting measures such as installing charging stations for electric vehicles and encouraging efforts to improve public transit, develop existing and additional park and ride locations, and increase carpooling and vanpooling by local commuters.
 - Work to mitigate river and road conflicts. Strategies to consider could include upsizing bridges and culverts or restoring floodplain areas disturbed by past infrastructure investments.
 - Limit road construction in high priority interior forest areas and high priority habitat connector areas.
- Actions:
 - The Town should continue to evaluate alternatives to mitigate flooding at Pumpkin Harbor Road and select the most cost effective alternative to implement.
 - The Town should continue to update Road Surface Management System and a Culvert Inventory System to estimate a road system condition and the approximate costs for future improvements.
 - Monitor the take rate of the town gravel pit and identify long-term solutions for the town's gravel needs before the supply of the current pit is exhausted.
 - Improve park-and ride facilities and explore opportunities for development of new public parking facilities.
 - Commission a study to scope potential pedestrian/bike connections between Cambridge Village and Jeffersonville. This could include support for extension of Cambridge Greenway to Williamson Road (Cambridge Rail Trail Commission).
 - Address the type and amount of development along Routes 15, 104, 108 and 109 to maximize highway capacity and avoid strip development (Planning Commission).
 - Identify and construct marked or signalized pedestrian crossings on VT Route 15 in Jeffersonville and Cambridge Villages to facilitate pedestrian access to businesses, services and recreational facilities.
 - Spearhead effort to install wayfinding signs to the Lamoille Valley Rail Trail and Cambridge Greenway.
 - Install bike racks in Village areas.
 - Continue discussions with VTrans regarding safety preparations, State compensation and long-range planning for those times when local roads (particularly Upper and Lower Pleasant Valley

Roads) are used as detours for State roads.

- When private airstrips/helipads are developed, work with the property owner to provide for use of these facilities during emergency situations.
- Continue discussions with the state in regard to management of riverway constrictions that are known to exacerbate flooding (e.g. at wrong way bridge and Rt. 15 culverts).
- Support efforts to install charging stations for electric vehicles.

Transportation Facilities and Services Report

The transportation network serving Cambridge is critical to all aspects of life in Cambridge: commerce, recreation, commuter travel and general mobility. The efficient and safe movement of people, goods, and services, both within and between communities, is needed to maintain the vitality of Cambridge.

Cambridge manages its town highways in accordance with the Town Highway Standards ordinance.^{*4} The ordinance establishes standards for construction, improvement, and use of public highways, and a process by which highways are classified, reclassified, discontinued, or accepted by the Town.

Transportation Infrastructure and Resources

Cambridge's transportation network encompasses the following infrastructure and resources:

Roads, Bridges and Culverts

There are approximately 107 miles of road in the Town of Cambridge. The Town owns 75 miles and the State, via Vermont Agency of Transportation, owns the remaining 32 miles.

The Town also owns and maintains bridges and culverts located on town-owned roads. The State reviews Town and State bridges over 20 feet in span, rates them according to the Federal sufficiency rating, and assigns a score from 0-100. (0 is the poorest, 100 is the highest) The bridges are determined to be (1) not deficient, (2) structurally deficient, or (3) functionally deficient. Cambridge is responsible for approximately a dozen bridges 20-feet and over that are inspected by the State. These bridges have a range of sufficiency ratings from 33 to 89. This information is on file at the Lamoille County Planning Commission and can also be obtained through the VTrans Structures division. As noted above, Cambridge has adopted State Bridge Standards. The Town also owns 463 culverts. The Town utilizes the Road Surface Management System (RSMS) methodology to provide an overview and estimate of a road system's condition and the approximate costs for future improvements. The System provides a systematic approach for the Selectboard to answer basic questions about the road system, to gauge current network conditions and to guide future improvement and investment in line with municipal Capital Improvement Programs. Updating of the RSMS is the Selectboard's and Road Foreman's priority.

The Town maintains its road infrastructure out of a main garage located on VT108 south and owns and maintains a fleet of heavy trucks and equipment in support of our local roads maintenance.

Sidewalks and Other Pedestrian Infrastructure

Sidewalks in Cambridge Town are located within Cambridge Village and Jeffersonville Village. In Jeffersonville, the sidewalks are located in the village core and are maintained by the Jeffersonville Village Trustees. Currently, the lack of a pedestrian crossing of VT Route 15 in Jeffersonville creates a significant barrier to pedestrian circulation between the Village and the Lamoille Valley Rail Trail.

The only official sidewalks in Cambridge Village are a narrow asphalt walkway along Lower Pleasant Valley Road from the Village to the Bridge and a disconnected sidewalk on the Wrong Way Bridge. Pedestrians, especially children, face numerous challenges utilizing the side roads. There is a desire in Cambridge Village to address these challenges while both preserving the historic/aesthetic nature of the Village and attending to concerns about flooding. In 2015, the Town and Village completed a small visioning exercise to consider ways

^{*4} <http://townofcambridgevt.org/document/town-of-cambridge-highway-standards-ordinance/>

to improve safety in this area. The meeting confirmed the community's desire to address pedestrian challenges in Cambridge Village by proposing solutions for road crossing, travelling along side roads and reconnecting the bridge sidewalk. *⁵

Commuter Park-and-Rides

There are two park-and-ride lots located on VT Route 15. These are located west of Cambridge Village and east of the roundabout with VT Route 108. The municipality recognizes the need to upgrade existing and develop new public parking areas that will contribute to recreation and village access.

Lamoille Valley Rail Trail and Cambridge Greenway

The Lamoille Valley Rail Trail will be 93-mile long, four-season, multi-use transportation path in northern Vermont built on the corridor of the former St. Johnsbury and Lamoille County Railroad. At this time, only two segments of the future 93-mile trail have been fully reconstructed and are available for year round use. Cambridge is home to one of the finished trail segments which begins near Cambridge Junction and runs 17 miles east to Morristown. At Cambridge Junction, LVRT connects to a local Cambridge Greenway Trail that continues to Jeffersonville.

The Cambridge Greenway is a 1.3 mile long, packed gravel surface recreation path located in Jeffersonville. The trail is overseen by a volunteer Greenway Committee. The path begins west of Jeffersonville, runs adjacent to the Lamoille River passing underneath the VT Routes 15 and 108 bridges, and ends at the historic Poland Covered Bridge in Cambridge Junction, where it intersects with the Lamoille Valley Rail Trail. A portion of the Greenway is located on a rail spur that once connected both Cambridge Village and Jeffersonville to the Lamoille Valley Rail Road. The Greenway Committee is currently working to extend the trail to the intersection of Williamson Road and Pleasant Valley Road, and, in the long term, with appropriate shoulder and signage improvements, allow one of these roads to serve as a multimodal connection between the two Villages.

Smugglers' Notch Scenic Highway Corridor

The Smugglers' Notch Scenic Highway Corridor is a 3.5-mile section of VT Route 108, of which approximately 2/3 is in Cambridge, with the remainder in Stowe. At this writing, Cambridge is actively engaged in joining the Vermont Byway Program, extending the Green Mountain Byway to include Cambridge sections of Routes 108 and 15, and using the byway designation to benefit the local economy.*⁶ Additionally, Smugglers Notch Partners are engaged in a project to protect and enhance the unique and fragile natural resources in the Notch by managing the human impact on the area through enhanced facilities and informational signage.*⁷

Public Transportation Services

VT Route 15 commuter bus service is operated by Green Mountain Transit (GMT) and provides transportation between Jeffersonville and Burlington. The route currently includes stops in Cambridge Village and Jeffersonville Village. The long-term viability for the Route 15 Commuter Bus route is in question and those

*⁵ Guidelines for these alternative techniques for improving pedestrian safety can be found in the Federal Highway Administration "Small Town and Rural Multimodal Networks" handbook.

*⁶ <https://www.vermontvacation.com/byways>

*⁷ Smugglers Notch Partners is an advisory group that consists of various entities including the Agency of Transportation, the Agency of Natural Resources, Smugglers' Notch Resort, Stowe Mountain Resort, University of Vermont, Green Mountain Club, and the Towns of Stowe and Cambridge among others. The Lamoille County Planning Commission facilitates the Partners' work.

seeking up-to-date information should refer to: <http://ridegmt.com/>

Additionally, a variety of human service agencies provide transportation services in Lamoille County. These include Central Vermont Council on the Aging, Lamoille County Mental Health, Lamoille County Vocational Rehabilitation, Out and About Adult Day Care, and Central Vermont Community Action Council.

Availability of rail and airport systems is important to the integrity of Cambridge's transportation system and the local economy. The closest AMTRAK railway stations are located in Waterbury and Burlington. The closest airports are in Burlington and Morrisville.

Transportation and Natural Resources

Like all aspects of the built environment, transportation infrastructure can have a significant impact on natural resources. Improperly maintained roads and ditches can have negative impacts on water quality. Undersized or improperly installed culverts lead to downstream channel erosion and results in ponding of water that can undermine the road bed. In addition, some culverts may create barriers to the migration of fish and other aquatic species. Roads may also create barriers for the movement of wildlife and fragment important wildlife habitat. The "Willow Crossings" area on Route 15 between Hubbard Drive and the Johnson Town line has been identified as an important wildlife crossing critical to animal populations traveling between Mount Mansfield and the Northern Green Mountains. VTrans workers at the district garage have reported a high number of collisions between deer and motor vehicles in this area.

Many of these issues can be addressed through maintenance and planning. The Vermont Local Roads Program provides educational materials and financial assistance for reducing erosion on gravel roads. Undersized culverts should be replaced, and new culverts should be properly sized. In addition to reducing downstream erosion, constructing culverts wider than a stream's normal width can also facilitate passage of certain species such as fisher and bobcat. Providing periodic breaks in guardrails can improve the permeability of a road for moose and deer and can increase human safety by allowing large animals to cross the road quickly. The construction of new roads in un-fragmented core forest habitat areas should be limited in order to avoid impacts on this important resource.

Impacts of Flooding on Transportation Network

Cambridge's transportation network is vulnerable to flooding and Cambridge has been working methodically to address the flooding issues.

Cambridge Greenway Trail Bridge Replacement

In 2017, Cambridge replaced an older bridge over the Brewster River. The bridge is a part of the Cambridge Greenway Trail. The bridge had a low elevation and as a result was affected by flood waters on an almost annual basis. The new bridge is adequately sized and will reduce the potential for flooding in Jeffersonville village core. The bridge replacement project included removing the existing abutments and restoring the floodplain in the vicinity of the abutments. In 2018, flood mitigation in this area will continue and new culverts will be installed that will aid in channeling floodwaters away from Jeffersonville village center and toward the Lamoille River.

Pumpkin Harbor Road Flooding

Flooding remains a perennial problem on the Route 15 Wrong Way Bridge and Pumpkin Harbor Road. The surface of Pumpkin Harbor Road is currently located below the two-year flood elevation, and floods at least once every 2-5 years. When this occurs, nearly 60 homes on Bartlett Hill Road become isolated by floodwaters and inaccessible to emergency vehicles. The Town has investigated two options to address this

issue:

- Creating an emergency access through an existing Class IV road over Bartlett Hill. The road would be open only to emergency vehicles. Even with significant grading, the average slope of this road would be ~17% -- far in excess of the maximum grade found in the Town's Road Standards.
- Elevate Pumpkin Harbor Road one foot above 25-year flood level (the Project). This will result in an average fill depth of 2.4 feet. This elevation was selected based on hydraulic modeling which found it to be the greatest elevation that could be achieved without having significant impacts on downstream flood levels and velocities.

Due to the potential costs of both options (estimated in excess of \$1million), the Town is also exploring whether any property-owners would be willing to provide easements for a shorter, secondary emergency access road.

Emergency Detours

Traffic detours caused by the flooding of VT Route 15 in the Wrong Way Bridge and Jeffersonville Villages areas represent ongoing transportation challenges in our community. When the flooding occurs, traffic is routinely detoured onto Upper and Lower Pleasant Valley Roads, which currently provide the only alternative routes between Lamoille County and the Burlington area during major flood events. While detoured, traffic volumes on these local roads increase from about 900 vehicles per day to more than 7,000 vehicles per day. Neither road has the adequate base or geometry to accommodate such volumes on a regular basis and both roads incur heavy damages as a result.

Housing: Objectives, Policies & Actions

- Objectives:
 - Cambridge seeks to have a variety and quantity of appropriate and affordable housing available to meet the needs of all community members, visitors, and seasonal workers.
- Policies:
 - In support of state planning goals to make housing in Vermont affordable, Cambridge supports accessory apartments within or attached to single family residences, and allows multifamily housing and manufactured housing in locations similar to those generally used for single-family conventional dwellings.
 - Cambridge supports a mix of housing types so that people of all ages, income levels, and household types have the opportunity live in town.
 - Higher density housing should be located near Villages and Growth Areas to enable ease of access to services and reduce the expense of municipal services.
 - Housing should minimize long term living costs through high quality design, efficient land use patterns and energy efficient construction.
 - Cambridge encourages land use patterns that are inherently more affordable by nature of cost efficiencies associated with construction (e.g. shorter access roads, common walls, proximity to public utilities, smaller lot sizes).
 - Efforts by private developers and non-profit organizations, (e.g. Lamoille Housing Partnership) to provide increased opportunities for affordable home ownership will be supported, provided the efforts are consistent with other elements of the Cambridge Town Plan.
 - Cambridge supports Home Sharing as a tool to create new housing options for residents.
 - The Town will support efforts that assist elderly, disabled, or special needs residents who want to remain in their homes including community based health care systems.
 - Cambridge supports the development of, assisted living, and nursing home facilities that are compatible with the physical and cultural characteristics of the community.
 - The Town supports efforts to identify solutions for seasonal employee housing.
- Actions:
 - The Town shall consider undertaking a study to determine the feasibility and potential appropriate locations for senior housing, assisted living, or nursing home facilities in Cambridge.
 - The Town shall investigate single family home conversions into multi-family homes to ensure safe conditions of these properties.

Housing Report

The availability of adequate housing to all people in the community reflects on, and contributes to the economy, tax base, and quality of life in Cambridge. Total population and population distribution by age and income level are important factors for consideration. As the population ages, housing needs change. As income levels change, the demand for different types of housing changes.

The economy of the area also influences housing demand. Should the economy of the area decline, demand for higher priced housing would likely decline and demand for rental units would likely increase. Changes in the tourist/recreation aspect of the economy could also bring a shift in demand for second homes.

The amount, type, and cost of housing in town directly impacts the quality of life of the area. The availability of affordable housing has also been identified as a factor in attracting business and industry to an area. Additionally, the type and amount of housing may also determine whether young families, retirees, and individuals with special needs have the ability to live in a community.

The overall goal for housing in Cambridge is to have an adequate supply of safe and affordable housing available in a variety of types for all income levels and for those with special housing needs. Housing should be located conveniently in relation to employment, services, retail centers, and educational and recreational facilities. Residential development should maintain the character of existing neighborhoods, allow ample open space, and be compatible with the physical capabilities of the land and existing facilities and services.

Housing Demographics ^{*8}

Projected population and housing growth

By 2030, Cambridge population is projected to increase by 821 people (22.7%) - from 3,776 in 2016 to 4,597 in 2030. Estimating the average household size at 2.5 people, the projected population growth translates to 328 new housing units. In the next five years, the largest growth is expected to occur in households, age categories 55-64 and 65-74. (Note: This is a county-wide projection).

Recent housing characteristics 2000-2016

Between 2000 and 2016, the total number of housing units in Cambridge increased by 295 units - from 1,363 to 1,658 units. Of the 295 added units, about 37% units were added in the villages - 3 units in Cambridge Village and 106 units in Jeffersonville.

Between 2000 and 2016, over half of housing growth occurred in rental units. Of the 295 new units, 179 units were rental and 116 units were owner occupied.

Most of Cambridge's rental stock is in its villages. In 2016, Jeffersonville had 58% of housing units that were renter occupied. In Cambridge Village, 48% of units were renter occupied. Rental vacancy in 2016 was low- at 0% in Jeffersonville and at 8.7% in Cambridge Village. In town overall, rental vacancy was 0.7%.

In 2016, housing was unaffordable for 28% home owners with a mortgage and 48% renters. ^{*9} These households spent more than 30% of their income on housing. Cambridge has taken steps to make affordable housing available. As of 2018, there were 39 subsidized/affordable rental units – all located in Jeffersonville.

^{*8} Data sources: U.S. Census Bureau and VT Department of Taxes.

^{*9} The federal department of Housing and Urban Development defines an affordable dwelling as spending no more than 30 percent of household income on housing, regardless of income.

Brewster River Housing on Main Street has 7 units. Jeffersonville Family Housing on Mann's Meadow has 10 units. Jeffersonville Senior Housing, also on Mann's Meadow, has 22 units.

Between 2000 and 2017, 371 residential units were sold. Median value of the sold units varied from \$191,000 in 2011 to 242,000 in 2016. Between 2000 and 2016, seasonal units decreased from 59 to 36.

Cambridge housing stock has a substantial portion of older structures. Pre-1940 structures in Cambridge Village represent 68% of housing stock. In Jeffersonville, it is 35% and in Cambridge overall, it is 22% of housing stock. The high percentage of units built before 1940 is evidence of both historic value and potential need for repair and rehabilitation.

Possible Avenues to Increase Affordable Housing

Towns have limited opportunities to impact affordable housing. There are generally two ways to increase affordable housing- on a project by project basis, or through regulations such as subdivision and zoning. As Cambridge does not have zoning, there are limited ways in which local policies might impact affordable housing in the community. Any bylaws, if adopted, should not prohibit or unduly burden affordable housing efforts.

One method of solving affordable housing issues is through project implementation. An example of this was the Lamoille Housing Partnership's project called the Jeffersonville Community Housing. This project was completed in December 2001 and included a mixed income, intergenerational development with 22 senior housing units and ten low income family units. These types of projects take time and money. Cambridge should continue to support efforts by Lamoille Housing Partnership to develop such projects in Town.

There are also programs and resources that address housing affordability for Vermonters. HomeShare Vermont assists elders and persons with disabilities to live independently in their own home by bringing them together with persons who are seeking affordable housing, and/or care giving opportunities. The State's "Vermont Neighborhoods" program offers projects that contain affordable housing and are located in proximity to State "designated village centers." The program provides relief from Act 250 and certain state taxes. It also provides a small amount of financial incentives for communities that host new affordable housing. The State of Vermont maintains the following website with links to housing resources of many types: accd.vermont.gov/housing/partners

Specialized Housing Options

Within every community there are those with special housing needs. The elderly and families with children living in poverty are examples of groups with special needs that are found in most communities. Those with disabilities may also require special arrangements. A final category of special needs housing is group quarters or institutional care. Living arrangements such as nursing homes, correctional facilities, group homes, and homeless shelters fall into this category.

The amount of special care housing depends upon the community's situation. Some individuals need only a special construction (handicapped accessibility for instance), while others need assisted living arrangements (visiting nurses), while still others may require full institutional care. Cambridge has a low demand for special housing (see below). Therefore the Town may need only some new services to meet current and future needs.

The 2016 American Community Survey summarizes some of the characteristics of those who may have special housing needs.

- Seniors:
 - There were 340 seniors over 65 of age years living in Cambridge.
- People living in poverty:
 - About 447 people, or 12% of the population lived in poverty. Included in this number are 73 families with children under 18 years of age and 10 seniors over 65 years of age.
- People with disabilities:
 - About 203 people reported disability status.

Seasonal Worker Housing

As the host Town for a major ski-resort and associated service-based businesses, Cambridge should consider issues related to housing for seasonal workers. These workers generally need inexpensive housing with short-term or no leases. Providing affordable housing for seasonal workers is an important factor for Cambridge's tourism industry.

Energy: Objectives, Policies & Actions

- **Energy Sources Objectives:**
 - For Cambridge to reduce dependence on outside sources of energy through energy efficiency and the use of locally available renewable sources.
- **Energy Sources Policies:**
 - Cambridge encourages the development and use of renewable energy sources.
 - All energy production projects situated within the Town of Cambridge should consider their impact on natural resources, wildlife, and working lands including farm and forestland.
- **Energy Sources Actions:**
 - Cambridge should conduct an inventory of all renewable energy opportunities in town including wind, wood, hydroelectric and solar. Special attention should be given to opportunities that may exist on municipally owned properties.
- **Energy Providers Objectives:**
 - Residents and businesses in Cambridge should have reliable power types suitable to meet their needs.
- **Energy Providers Policies:**
 - Cambridge supports efforts to upgrade energy transmission and distribution systems in order to increase efficiency, providing upgrades are consistent with the goals of the Natural Resources chapter of this plan.
- **Energy Providers Actions:**
 - Zoning bylaws, if adopted, must address the needs of fuel providers. The bylaws should include areas in town for bulk storage of heating fuels including renewable energy fuel sources (biofuel) and specify locations for gasoline service stations and electric car charging stations.
 - The Town should work with utility representatives to determine what role the Town has in promoting increased efficiency of electrical energy usage and existing local utility lines.
- **Energy Consumers Objectives:**
 - Promote energy efficiency and conservation in the design, construction, and use of municipal structures and all new construction.
- **Energy Consumers Policies:**
 - Energy conservation and the use of renewable energy resources will be considered in town buildings and operations as appropriate.
 - Energy efficiency will be included as a factor in municipal construction, purchases and uses. A Life cycle cost analysis method will be used by the town in evaluating capital expenditures as appropriate.
 - Cambridge supports energy efficiency programs as appropriate to increase energy efficiency and reduce costs.
 - Development and site design which uses siting and landscaping techniques to reduce building requirements for power, lighting, heating, and cooling are encouraged.
 - Ridesharing, and/or development of bike and pedestrian paths and park and ride lots, and increased public transportation opportunities to reduce transportation costs are encouraged.
 - Home occupations and home based businesses that reduce transportation energy consumption and fuel expenses are encouraged.
- **Energy Consumers Actions:**
 - The Town should develop a local Energy Committee to conduct regular energy audits of municipal buildings and provide educational outreach on weatherization practices and incentives.
 - The Town should coordinate the citing of future Park and Ride lots with CCTA's Jeffersonville

- to Burlington public transit line and coordinate to maintain current lots.
- The Town should explore the idea of implementing a PACE (Property Assessed Clean Energy) Financing District in Cambridge. For more information on PACE visit:
[http://pacevermont.wikispaces.com/Welcome+to+ PACE+Vermont](http://pacevermont.wikispaces.com/Welcome+to+PACE+Vermont)
 - The Planning Commission should collaborate with members of the community and LCPC to develop an Enhanced Energy Plan as defined by the State of VT.

Energy Report

Energy for light, heat, transportation, and the operation of equipment is essential for the economy and well-being of the community. Too heavy a reliance on any one source or type of fuel to provide that energy can leave the population vulnerable to wide market swings in energy costs. Production and consumption of energy resources may have negative environmental effects including water and air pollution and the loss of valuable working landscapes and natural habitat areas. These impacts may in turn contribute to public health problems.

Many of the factors that determine the availability and cost of fuels are beyond the control of the community. However, there are measures the Town of Cambridge and its residents can implement to influence both the Town and Lamoille County's energy future. These measures may include encouraging the development of diverse energy sources, the use of renewable energy, and implementation of conservation measures including promoting energy efficiency in proposed developments and existing structures. All energy production projects situated within the Town of Cambridge should consider their impact on natural resources, wildlife, and working lands including farm and forestland.

Energy plans are generally divided into three sectors- electricity, heating, and transportation. The first section will discuss current and potential sources of energy within each of these sectors. The remaining sections will examine energy providers and consumers by sector.

Energy Sources

Electricity

Electricity can be generated from a variety of sources including hydro, nuclear, coal, oil, co-generation (wood fuel), and natural gas. Other potential sources of electric energy include solar, water and wind. For the most part, renewable sources of electricity are found locally while the non-renewable sources are from outside the state.

The Town of Cambridge encourages the production of local net-metered, non-intrusive power generation. However, the siting of these power-generation facilities is limited by local topography. For more information on the distribution of wind resources within the Town of Cambridge, visit the Vermont Renewable Energy Atlas at www.vtenergyatlas.com.

While commercial wind resources in town are limited, private landowners may consider putting up small-scale wind turbines. Cambridge supports these efforts provided they are placed where they do not have a significant negative impact. When siting wind turbines, appropriate safety and noise distances should be measured from a property line to the turbine(s). Safety distances must be sufficient to ensure sound levels will not exceed standards set the Vermont Public Service Board.

In terms of solar resources, the Town of Cambridge has great potential for residential PV (Photovoltaic) roof-top solar systems. The Town of Cambridge encourages both roof-top and ground level solar projects to be designed in a manner that considers the impact on productive agricultural and forest lands as well as natural resources. The siting and development of commercial solar and wind projects are exempt from local zoning and are examined by the Public Service Board under the Section 248 review process. For more information on this process visit www.state.vt.us/psb/index.stm.

Home Heating

The heating of homes and businesses is an important sector of energy plans, especially here in northern Vermont. According to the Vermont Public Service Department, within Lamoille County home heating accounts for over 31% of total energy consumption. One local renewable energy source for home heating is wood. Solar power has also been used effectively to heat water (which is another component of home heating). Other sources of heating fuel include oil, kerosene, geothermal, and gas. Cambridge residents are encouraged to explore efficiency improvements to home heating systems to reduce overall consumption rates and air pollution caused from the burning of petroleum-based fuel products (oil, kerosene, propane). For information on home weatherization tips and local certified contractors visit Efficiency Vermont's webpage at www.efficiencyvermont.com.

Transportation

According to the 2011 Vermont Comprehensive Energy Plan, statewide transportation accounts for 34% of the total energy demand, accounting for one third of Vermont's energy use. Countywide, the transportation sector accounts for 31% of the Lamoille Region's total energy consumption. The Statewide Energy Plan calls for renewable energy providing 90% of the state's energy use, and transportation changes are a major part of that effort.

The municipal fleet accounts for the largest share of the town's energy costs. Additionally, personal transportation requirements constitute the largest share of a family's energy costs. Energy demand for transportation can be influenced by the location and type of roads provided, convenience of services and facilities, structuring of routes for school buses, the proximity of existing homes to local employment centers, and the siting of new residential developments. The Town of Cambridge encourages mixed use, compact development near the villages to stimulate local employment opportunities and reduce commute distances for town residents.

Most transportation is powered by fossil fuels (gasoline or diesel) and will be for the foreseeable future. Innovations in hybrid and electric cars continue to bring improvements in vehicle fuel efficiency.

Energy Providers

Electricity

Vermont Electric Cooperative and Green Mountain Power (formerly Central Vermont Public Service Corporation) are the two utilities that provide electric service in Cambridge.

Home heating

Home heating fuel, such as oil, kerosene, and LP (Liquid Propane), wood/wood pellets, and geothermal heat are provided entirely through private companies. Wood for woodstoves is generally provided through private individuals in the area.

Transportation

Fuel for transportation (gas and diesel), is provided locally by privately owned and operated service stations. As electric vehicles become common in the near future, the local electric company may explore providing some electric charging stations.

Energy Consumers

Municipal facilities and services

The Town and Village departments are major energy consumers. Over the last fifteen years efforts were made to improve the energy efficiency of buildings and operations, however, further gains may yet be realized.

Building efficiency technology and methods continue to improve, and can benefit the town as current municipal buildings are renovated, or new constructed.

Increasing efficiency of energy use within all aspects of the Town and Village government will not only reduce the amount of energy consumed, but also save on local government costs.

Electricity

Electrical costs are a large expenditure for the Town and Village. The largest municipal consumer of electricity is the school. Like other energy conservation efforts, efficiency in design and operation are critical to saving energy and tax dollars.

Heating

For all buildings maintained by the town, heating fuel is a large factor in budgeting. Similarly, the town clerk's office, town garage, and other associated facilities such as the fire department have heating expenditures. Energy efficiency is the key to saving tax dollars. Any renovations or new construction to municipal buildings and community facilities should take into account energy efficiency in the design and construction process to save taxpayer dollars over the lifetime of the project.

Financing Strategies for Improving the Efficiency of Municipal Buildings

There are a variety of methods for financing efficiency improvements for municipal facilities including grants, efficiency incentives, budgets/capital reserves, loans, bonds, performance contracts and a tax-exempt lease purchase. Efficiency Vermont offers financial incentives for municipalities improving the efficiency of town facilities and services (street lights). For more information visit www.efficiencyvermont.com.

Transportation

Municipal transportation expenses fall into two major categories- public transportation (school buses) and road maintenance.

Road maintenance does not have a fuel line item in the budget but it is a significant consideration in budgeting. Similarly, the fire and rescue services require diesel and gasoline for their trucks. These expenses are not as large as those for road maintenance.

Residential, commercial and industrial

Electricity

Statistics on electricity use by individuals and businesses are generally more difficult to obtain because the utility companies keep these figures confidential. According to Efficiency Vermont, in 2010 energy efficiency projects/conservation measures conducted in commercial and industrial buildings within the Town of Cambridge saved 200,220 kilowatt hours of electricity. During that same time period residential sector energy efficiency upgrades accounted for a 2.4% reduction in electricity use (savings of 341,008 kilowatt hours).

Heating

The 2010 ACS (American Community Survey) indicates heavy reliance upon oil as the primary heating fuel. In town, 48% of all households use fuel oil or kerosene as their primary heating fuel. Gas (usually liquid propane) was the second most common fuel and was used by 23% of houses. Wood fuel was third with 20% of houses utilizing it as a primary heat source and the remainder was split between electric heat and other fuels.

Table 13. Home heating fuels by type, number of households, and year

Type of fuel	2000	2010	% change 1980-2010	% change 2000-2010
Gas	323	336	+572.0 %	+ 4.025%
Electric	20	113	+36.1%	+465.0 %
Oil, kerosene	722	699	+9.9%	- 44.7 %
Coal	0	0	-100%	0.0%

Source: US Census Bureau

Heating fuels have shifted in use over the past thirty years in Cambridge. Table 13 shows the changes since 2000 of the types of heating fuels. Gas heat (LP primarily) is the fastest growing heating fuel over the past twenty years. Oil continues to be the most popular and is growing at a steady rate. However, despite the recent shift in heating fuels and residential energy conservation efforts, per capita energy consumption is on the rise.

The popularity of wood heat fell during the 1990's but has since seen a resurgence. Wood heat continues to be used in many homes as a supplement. As heating costs continue to rise, heating with renewable sources is increasing popularity. Gas and oil are more convenient, but wood heat still continues to play a significant role in home heating as newer, more efficient wood and pellet stoves ease the burden of rising fossil fuel costs. Increased efficiency in these heating systems has allowed homeowners to switch back to utilizing wood as a primary heating fuel source.

Other low cost heating sources include natural gas systems. These systems are not commonly found in northern Vermont homes and commercial buildings for a variety of reasons, including the lack of a natural gas pipeline extending to communities such as Cambridge, limited energy storage opportunities, and the potential for exposed natural gas to cause significant water and air pollution. Due to potential pollution impacts, in 2011 the State of Vermont placed a 3-year moratorium on the increasingly used natural gas extraction method known as "fracking" (horizontal drilling).

New residential and business structures can affect energy savings in siting as well as in selection of materials and design (e.g. locating on a south facing exposure, installing small energy efficient windows on the north side of structures, and larger energy efficient south facing windows, properly insulating walls, basement and attic).

Financing for Efficiency Projects in Commercial and Residential Buildings

The Town of Cambridge encourages both commercial and residential property owners to invest in efficiency upgrades to conserve energy and lower long-term heating and electric costs.

Commercial and residential property owners can apply for financial incentives through Efficiency Vermont's Energy Star Home Performance and Building Performance programs. For more information on Efficiency Vermont incentives visit www.efficiencyvermont.com.

Transportation

In 1989, 28 percent of Cambridge residents traveled over a half hour to their place of work. By 1999 this increased to 59 percent. In 2010, the estimated travel time to work was 32.9 minutes. With more people in town and a greater percent commuting out of town to work, the highways are becoming busier during the early morning rush. Adding to the growing problem, Cambridge also is experiencing an increase in commuting traffic that passes through town. Future development should be sited in a manner that provides safe and

convenient access to local employment opportunities and services. All new road projects on paved state and town highways should consider pedestrian and bicycle safety and connectivity to other bike/pedestrian facilities (trails, sidewalks, wide road shoulders).

The key to making improvements in transportation is with energy efficiency – by driving less, using more efficient vehicles, carpooling, or using public transportation. According to the 2010 American Community Survey, 77.7% of all commuters from Cambridge drove alone to work while only 15.6% carpoolled. As gasoline prices fluctuate and automobile emissions continue to impact air quality, efforts should be made to encourage commuters to share rides and to investigate other ways to reduce the individual's dependency on the private automobile. Viable alternatives need to be safe, convenient and enjoyable as well as energy efficient.

In addition to ridesharing and utilizing public transit, the Town of Cambridge should explore the need for additional or improvements to existing pedestrian and bike facilities. As required by the 2011 Complete Streets legislation, new road projects should be designed in a manner that safely accommodate all users including non- motorists. Increasing pedestrian and bike connectivity (widen road shoulders, extend sidewalks in villages) throughout the Town of Cambridge can provide safer travel routes and reduce residents' and visitors' dependence on automobiles for local commuting and shopping trips. For more information on promoting energy efficiency in the transportation sector please refer to the Transportation chapter of this plan.

Integrating Flood Resiliency into Energy Practices

While the above conservation strategies identify areas for energy efficiency improvements and cost savings, often times, local energy plans fail to address concerns related to the impact of local flooding events. In more recent years, the Town of Cambridge has experienced an increase in major re-occurring flood events, causing repetitive damage to private properties and local infrastructure including utility lines. Past flood damage has primarily been concentrated within the two villages (Jeffersonville and Cambridge Village) and at low elevation points along Route 15 and 108. With several structures situated within the 100-year floodplain, it is critical for Cambridge property owners and utility providers to consider strategies to prevent future damage to utility lines, private heating and cooling systems, and to reduce pollution caused by leaking fuel tanks. Strategies to prevent such future damage and property loss may include raising circuit breakers, furnaces and other HVAC system components above the local base flood elevation, burying utilities underground, tying down fuel tanks, and considering the switch to non-renewable energy sources that are less likely to contaminate floodwaters (wood pellets, solar, etc.)

Historic, Scenic, and Archaeological Resources: Objectives, Policies & Actions

- Objectives:
 - Cambridge encourages the maintenance, restoration and continued functional use of historic structures (bridges, etc.), sites, and areas.
 - Maintain the scenic character of Cambridge's landscape including the working landscape and natural beauty, Lamoille and Brewster rivers, high elevation ridgelines and traditional compact village center development.
 - Identify and preserve Cambridge's archaeological record.
- Historical Resources Policies:
 - Efforts to compile a history of Cambridge are supported.
 - Development within any designated historic district should be in character with the surrounding architecture.
 - Cambridge supports the efforts of the Cambridge Historical Society in order to implement the goals and policies of this chapter.
 - Plans for transportation and other infrastructure improvements should consider impacts to historic resources.
 - The Town should provide informational resources to owners of historic buildings.
 - Cambridge supports applications for Village Center Designation tax credits and Historic Preservation grants.
- Historical Resources Actions:
 - The Cambridge Conservation Commission shall research and implement tree planting and other landscaping within the Old Cambridge Village Green to enhance the physical appearance of the Village and provide a buffer between North and South Main Street and commuter traffic on Route 15.
 - The selectboard will actively coordinate with the State Department of Transportation (VTRANS) to ensure any upgrades to Route 15 through Cambridge Village are mindful of the historic character of the area.
 - The Planning Commission will seek to maintain Village Center designation for Cambridge Village.
- Scenic Resources Policies:
 - Cambridge supports development that helps to maintain or enhance the working landscape and natural beauty of the Town.
 - The Town recognizes the importance of the Lamoille River and the Brewster River and their enduring scenic and recreational values.
 - Telecommunications towers, wind turbines, and other large obvious structures shall be designed and carefully sited to minimize impacts on scenic resources. Community input shall be sought and considered through all phases of the permitting and development process for such structures. Where ridgeline development occurs, it shall be designed and sited so as to maintain the natural scenic character of Cambridge.
- Scenic Resources Actions:
 - The Development Review Board and Planning Commission shall regularly consult to determine if updates to the subdivision regulations are needed in order to provide clarity to applicants and achieve the goals and objectives identified in this Plan.
 - The Planning Commission should review the Cambridge tower ordinance to ensure the provisions are adequate to achieve the scenic goals of this Plan.
 - The Planning Commission should consider developing a ridgeline ordinance to regulate development in certain scenic areas of town.

- The Planning Commission should develop clear community standards regarding use of scenic resources, including, but not limited to, ridgelines, scenic vistas, and the traditional landscape, based on extensive input from the community.
- Archeological Resources Policies:
 - Projects occurring in archaeologically sensitive areas in Town should contact the VT department of historic preservation to ensure development does not negatively impact archeological resources.
- Archeological Resources Actions:
 - Where an archaeological site is discovered on an undeveloped property or part of a property, the Town supports the purchase of the property or development rights on the affected portion as a means of compensating landowners for the loss of development potential. Purchase of development rights are always on a willing seller basis.
 - The Planning Commission should develop a comprehensive set of provisions within the zoning bylaws to achieve the policies of preservation of archaeological resources.

Historic, Scenic and Archeological Resources Report

Special features that reflect the cultural development and character of the Town include its historic sites, buildings, districts, and scenic areas. The visual character of a community is of value to its residents, businesses, and visitors.

Historic Resources

Evidence of Cambridge's past is found throughout the Town and Villages in the form of its historic buildings and areas. These historic resources not only provide a physical link to the past, but also contribute to the present landscape. While preservation of historic structures recognizes them as an important component of the overall fabric of the community, it should not prevent innovation and the expression of different styles.

History

The Town of Cambridge has a long and varied past, which is responsible for the values and traditions held by residents today. The Town should ensure that the history behind the Town is available for residents, new and old, to enjoy. Several accounts of the history of Cambridge have been written. More information about the History of Cambridge can be found by contacting the Cambridge Historical Society.

Historic Structures and Districts

The National Register of Historic Places is the nation's official list of historical, architectural, and archeological resources of local, state and national significance. (To be eligible for the National Register, buildings, districts, or sites must be at least 50 years old and must be distinctive and well preserved examples of their type and period. They should also have strong associations with important historic events or persons or have the potential of yielding significant information on our history or pre-history.)

National Register designation does not affect the owner's right to modify, maintain, or dispose of the property. However, projects that involve Federal funds or permits must adhere to Federal guidelines which do affect structural modifications. There may be tax or grant incentives available to support rehabilitation that preserves existing important historic features. The Cambridge Meeting House and the Jeffersonville Historic District are listed on the National Register.

In the late 1970's and early 1980's The Vermont Division for Historic Preservation conducted a survey of "historic" structures and sites in Cambridge. Two historic districts (Jeffersonville and Cambridge Borough) and 64 independent sites/structures were listed in the inventory. Most of the "independent" structures are privately owned homes and farms scattered throughout the community. A preliminary review of the inventory indicates some inaccuracies that need to be corrected if it is to be useful in future planning activities.

While Cambridge Village is not officially listed as a "Historic District," it is the historic center of the community. In keeping with the historic pattern of Vermont villages, Cambridge Village contains a mix of homes, businesses, and civic uses. In addition to the buildings themselves, the historic character of Cambridge Village is defined by the relationship of the structures with one another and with streets and green space. Buildings with generally narrow front yards and front porches line North and South Main Street, contributing to the feeling of a "public" area around the Old Village Green (which is bisected by Route 15).

Village Center Designation

In 2012, at the request of the Cambridge Village Trustees, the core of Cambridge Village received "Village Center Designation" from the State of Vermont (see associated Cambridge Village Center Designation Map). This designation places no restrictions or obligations on private property. Rather, owners of commercial and

multi-family properties within a Designated Village Center are eligible for tax credits to restore or protect historic features of buildings and for code and safety improvements. In addition to these tax credits, many State funding programs, such as the Transportation Enhancements Program, Municipal Planning Grant Program, and Community Development Block Grant Program, give preference to projects located in Designated Village Centers. Some private entities, such as the Preservation Trust of Vermont, also give preference to projects located in Designated Village Centers.

Historic Bridges

There are three covered bridges in the community which are listed on the National Register: Grist Mill Covered Bridge, Poland Covered Bridge, and Gates Farm Covered Bridge (all entered in 1974). The Poland Covered Bridge was restored in 2006, with assistance from the Vermont Agency of Transportation's Transportation Enhancements Program, but is not currently open to vehicular traffic.

Scenic Resources

Scenic resources include views observed from both a stationary point and while moving along a road or path. They include natural scenes or a mixture of natural and manmade elements (such as houses, roads, farms).

There is much natural beauty in the community that contributes to the quality of life of residents and is appealing to its visitors. A drive on almost any of the roads in Town puts the "observer" in contact with farmland, pastures, hills, forests, historic buildings, and views of the nearby mountains, rivers, and streams. Two features in particular contribute to the scenic character of Cambridge -- the traditional landscape pattern and ridgelines.

The traditional landscape pattern includes open fields and meadows with their patterns contrasted by rolling forested hills and ridgelines. Cambridge has a unique and historic built environment of dispersed settlements. The mixture of farmland and small villages nestled between the ridgelines of the Green Mountains creates a rolling landscape of scenic visits. The Lamoille River and Brewster River add to this landscape. The blend of historic sites and picturesque natural scenery also contributes to Cambridge's resemblance of a traditional New England town, with a vibrant village center surrounded by rural country side. It should be noted that these landscapes are the result of more than two centuries of farming.

Prominent ridgelines, including Mount Mansfield and the Sterling Ridge, provide a scenic background to Cambridge, both within Town and on major approaches from neighboring communities. In addition to their scenic values, these features offer other natural resource values. Undeveloped ridgelines are parts of important core habitat, provide important corridors for wildlife, and often also contain head waters of local streams, seeps, and ground water recharge areas. Ridgelines are also prized locations for high-end residential development. Poorly planned residential development could compromise the scenic qualities of these areas. However, it is possible to locate development in the Town's uplands in a manner that preserves scenic qualities by careful placing structures below the top-of-ridge and minimizing site clearing and grading.

As noted previously, the portion of VT 108 south of the Smugglers' Notch Resort has been designated as a State Scenic Highway. The Smuggler's Notch Scenic Highway encompasses approximately 3.7 miles of VT 108 in the Towns of Cambridge and Stowe and is one of two State-designated scenic highways in Vermont (The other is VT 125 through Middlebury Gap). Smuggler's Notch is most noted for its dramatic cliffs, winding and narrow roadway, scenic vistas, and hiking and climbing opportunities. The Notch is also part of a 5,000 acre natural area hosting a variety of unique geological and ecological features, including several rare arctic plants and nesting pairs of Peregrine Falcons -- a State and Federally protected species. Open to vehicles from May through November, thousands of visitors pass through Smuggler's Notch as sightseers or commuters, while

others stop to hike and explore the trails or to climb the boulders and cliffs.

Cambridge's scenic resources have not been fully inventoried. Future efforts to protect scenic resources require the development of criteria for evaluating a specific scenic area. Such criteria should be as objective as possible and should be locally developed with participation by a broad range of members of the community.

Methods for Preserving Scenic Resources

Scenic resources, while valued by residents and visitors alike, are difficult to regulate. Cambridge values its many beautiful vistas, forested hills, and open fields, but it would be unfair to deny the right to develop based on how one's property looks from a roadway. In order to balance the rights of property owners with requirements for attractive and safe development, the Town should consider adopting site plan approval for all non-residential proposals.

The purpose of site plan approval is to promote quality development rather than preventing development. Poorly designed projects or ones that are inflexible to commission recommendations may be denied approval, but the intent is for the standards to be flexible. In developing guidelines, the Planning Commission should strive for standards that will promote quality, attractive developments. Where possible, proposals should protect open space, retain natural vegetation, screen parking lots from view, be of a pleasant appearance, and other similar requirements.

Subdivision regulations should also reflect these principles. Lot lines should protect open space and scenic ridgelines, as should conserved areas of any planned residential developments. Subdivision standards can provide a mechanism for a property owner to fully develop their land while situating new lots in a way that maintains the scenic quality of the area (for example, by placing building lots at field's edge or along windrows). This is especially important along State routes that are most heavily traveled and contribute to Cambridge's attractiveness to the tourism industry. Any subdivision standards related to scenic resources should be carefully crafted based on extensive community input and should provide clear guidance for the Development Review Board, property owners/applicants, and other interested parties.

Telecommunication towers are another area of special concern with respect to scenic resources. Towers cannot be barred from Town, but they can, and should, be regulated to ensure they are sited and constructed appropriately. Where feasible, rather than constructing multiple towers, antennae should be collocated on a single towers.

Both Mount Mansfield and the Sterling Ridge have been identified as sites with the potential for wind energy development. If such development occurs, service and access roads shall utilize existing woods roads and trails whenever possible in order to limit the amount of forest fragmentation, and clearing around turbines shall be limited to what is necessary to provide for safe operation of the facility. Any warning lights installed on the facility shall utilize motion sensors so as not to disturb the night sky when aircraft are not present.

Finally, it is important to note that both of the scenic resources listed above – the traditional landscape pattern and forested ridgelines -- are the result of active management of land by property owners. Ensuring that use of land for agriculture and forestry is economically viable may be the most effective means of maintaining these resources.

Archaeological Resources

Cambridge contains an archaeologically sensitive corridor associated with the Lamoille River valley and extending up to Smugglers' Notch along the Brewster River. Archaeologically sensitive corridors are areas that

have certain environmental factors present which make them more likely than elsewhere to have had early human occupation. These factors include topography, sunlight exposure, distance to water, and availability of food and other important resources. Federal and State laws protect archaeological sites. Developers planning to work in the potentially sensitive corridor should contact the Vermont Department for Historic Preservation while in the early planning stages of a project to determine whether the location of a proposed project could have an impact on a significant archaeological site.

Land Use and Development: Objectives, Policies & Actions

- Objectives:
 - Development and growth in Cambridge shall occur in a reasonable and sustainable manner so as to protect the natural resource base, to use services efficiently, and to preserve Cambridge's rural character and historic settlement patterns. To this end, development should be organized based on type and density, so that higher densities are directed toward Villages and Growth areas, with consideration of infrastructure and natural resource constraints.
- Policies:
 - Cambridge supports development that is sensitive to the inherent limitation of the land and its impact on the environment, community services, and the visual landscape.
 - Mixed-use developments are encouraged in Village and Growth Areas to allow commercial, business, low-intensity industrial, and residential uses to be located near each other.
 - Growth and development in the Route 108 South Area should be designed and located so as to minimize disruption of scenic views along the corridor and to ensure smooth traffic control and organized access management.
 - Especially in the Rural Residential and Conservation/Forest areas, the clustering and/or siting of development is encouraged in order to protect rural and scenic character and to maintain contiguous tracts of resources and open space.
 - The Flood Hazard area is intended to protect life and property within Federally-designated flood hazard areas. Development in this area shall not exacerbate flooding or fluvial erosion upstream or downstream. Any new or substantially improved structure should be elevated or flood proofed at least one foot above the 100-year flood elevation. Use of structural piers and other techniques that allow floodwaters to flow beneath a structure is preferred over use of fill, which displaces floodwaters onto other properties.
 - Land within the Conservation/Forest Area and Flood Hazard Area should receive high priority for conservation funding.
 - Infrastructure investments made by the Town, Villages, and State should reinforce the development patterns outlined in this Plan.
- Actions:
 - The Planning Commission should work with local developers, landowners, and businesses to encourage development activity that will enhance the rural character of the community.
 - The Planning Commission should ensure that the Cambridge Subdivision Regulations are effective in implementing the goals and objectives of this Plan. If the Subdivision Regulations are found not to be effective, the Planning Commission should initiate a public process to discuss potential amendments to address any deficiencies.
 - The Planning Commission should facilitate regular communication with the Development Review Board regarding current development trends.
 - Cambridge should investigate the need and support for local development controls that will implement the goals and objectives of this Plan while encouraging flexibility and creativity as part of the development process.
 - The Planning Commission should engage in a community discussion and review of appropriate use and development of flood hazard areas.

Land Use and Development Report

The land use pattern of any community is typically characteristic of several interdependent influences: physical constraints of the land, historical development patterns, transportation routes, economic influences, and personal preferences. This pattern of uses and development gives a community character and serves as the foundation for future development.

Current Land Use Pattern

The development pattern of Cambridge is typical of the communities throughout northern Vermont. This pattern is one of traditional New England settlement with compact village centers surrounded by agricultural and forest lands. The Villages of Cambridge and Jeffersonville, both located along the Lamoille River, serve as activity centers with community services, commercial and industrial activity, and higher density residential development.

The Lamoille Valley bisects the Town from east to west. The valley also provides important transportation corridors providing access to the community via State highways. The flood plains along the Lamoille River serve as the primary location for agricultural activity in Town - with high concentrations of prime agricultural soils.

Areas such as the Pleasant Valley, and North and South Cambridge have their own concentrations of agricultural land uses. These farmlands are typically divided by other land uses creating smaller and more dispersed units of farmland than along the Lamoille River. North Cambridge in particular has more dispersed farmland, smaller lot sizes, and higher density rural development than other parts of the community with the exception of the village centers.

The community's higher elevations and steep slopes are mostly forested - much of which is covered with mixed hardwoods and with stands of softwood dominating the highest ground. Most of this forestland is in medium sized blocks from 100 to 500 acres and serves as private woodlots with some commercial harvesting. Larger forestland parcels from 500 to 3000 acres are found along ridgelines and mountaintops. In addition to wildlife, recreational, and economic benefits, these forestlands provide the backdrop for the seasonal display of color that dominates the landscape every fall.

Cambridge's high elevation land is also home to the Smuggler's Notch Ski Resort. Smuggler's Notch is located in the southern tip of the community and encompasses the northern faces of Morse Mountain, Madonna and Spruce Peaks, and the old settlement area of Morse's Mill. The Village at Smuggler's Notch is characteristic of a compact, high- density mixed-use development. Surrounding the ski area is predominantly forested land - most of which is part of the Mount Mansfield State Forest.

It is this combination and hierarchy of land use activity, in combination with contrasting open and forested land, that provides the essential character of Cambridge. It is this pattern and character of development that the community wishes to maintain into the future.

Land Uses

The following section provides an overview of various land uses. This section will provide information on the types and scale of uses and will describe where various uses should be allowed or encouraged in the future, based on the Land Use Areas outlined above

Agriculture

The viability of existing agricultural operations in the community should be protected. Prime agricultural soils, proximity to markets, agricultural infrastructure, and other agricultural operations must be maintained in order to ensure the existence of a critical mass of farms in the Town.

Agricultural land uses can occur only where the necessary land base is available and, therefore, cannot be placed or moved as a community or as adjacent landowners see fit. This is especially important when planning additional residential or commercial development adjacent to agricultural lands. Such development must take into consideration the inherent activity, noise, and odors associated with agriculture when considering development options.

Development in agricultural areas must take efforts to minimize the fragmentation of existing farms and concentrations of prime agricultural soils. Where development of agricultural land is necessary and desirable, development should be clustered on marginal lands so as not to negatively impact the continued viability of any remaining or adjacent farms. Consideration should also be given to maintaining access to remaining working farmland, the visual impact of development, and the loss of open space.

A diversity of agricultural operations throughout the community is encouraged in an effort to maintain working open space, to support the viability of other farms, and to diversify the community's economic base. Agricultural land uses should be sensitive of their potential impact on surface and ground water quality and adjacent non-agricultural land uses.

To achieve the goals of this Plan, the rural residential area will play a prominent role in the future of agriculture in Cambridge. This area should offer the most flexibility to balance agricultural uses and development. Residential development is expected in this area. In order to reduce conflicts between agricultural and new residential uses, clustering of residential development to protect agricultural soils and open space is encouraged and could be required. Careful siting of certain land uses may minimize these situations. In addition, new residential subdivisions may be required to provide screening or buffering along the subdivision boundary and adjacent agricultural uses and soils, and/or to include "right-to-farm" language in deeds protecting neighboring agricultural uses from nuisance lawsuits.

Forest Land

As with agriculture, the continued viability of Cambridge's forested lands must be preserved. Continuity of forestland at higher elevations and its dispersal throughout lower elevations should be maintained. Efforts to maintain a diversity of forest uses and benefits, both private and public, must be considered.

Like agriculture, forestland management can occur only where the necessary land base is available and, therefore, cannot be placed or moved as a community or as adjacent landowners see fit. This is especially important when planning additional residential or commercial development adjacent to commercial forestlands. Such development must take into consideration the inherent activity, noise, and traffic associated with forestry when considering development options.

The costs of fragmentation, the forest's ability to provide multiple resource benefits, and the viability of commercial forestry need great consideration when development is proposed. The clustering of development should be encouraged so as to minimize the impact on the multiple private and public benefits and to maintain contiguous blocks of forestland throughout the community. Continued access to forested parcels for management activities and the availability of the resource for commercial uses should

be assured. Special consideration for impacts caused by soil erosion and runoff should be given when developing forestlands due to the typically steep nature of the site.

All development and management activities on forestland should give consideration to wildlife habitats and travel corridors, recreational uses, water quality and quantity, and the visual landscape.

The conservation/forest area is proposed in order to protect commercial tracts of timberland from fragmentation. Active management of timber is expected in the rural residential area as well. On-site value added operations, such as “back-yard” and portable mills, are also expected in these areas.

Residential

High and medium density residential development is encouraged in Village and Growth Areas. The rate and timing of such development must be in consideration of the availability and capacity of municipal facilities and services. To ensure the availability of affordable housing options for all residents, a variety of residential densities and housing options must be encouraged.

The community also recognizes that many people desire to live in a more rural setting. Rural and seasonal residential development in areas important for resource conservation and use should be clustered in such a way as to minimize its impact on resource use, recreation, wildlife habitat, and the visual landscape. In addition to resource protection, such clustering should serve to minimize the cost of housing, energy use, and the provision of municipal services.

All residential development should take into consideration the inherent limitations of the land to support development, the conservation of productive resource lands, and its visual impact on the landscape. In addition, large multi-unit residential development should be phased over a reasonable period of time in order to minimize its impact on community facilities and services.

All residential development must be designed with:

- Adequate septic disposal systems that protect both the public health and the environment;
- A safe drinking water supply without interference to adjacent private and public wells;
- Necessary access for fire and rescue vehicles and personnel; and
- Safe access to the Town’s highway network that provides the minimum interference with existing traffic patterns.

The highest density of residential development is expected in the Village of Cambridge, Cambridge Junction, and Ski Area. Residential development, including seasonal worker housing, is also expected along Route 108 South, focused between Pratt and Stebbins Road. . Residential development within the rural residential area should be lower density. In this area, overall density will be dependent on specific site conditions. For example, higher overall densities are appropriate on parcels with few natural resource constraints and/or with access to State highways or paved local roads. Residential development is also expected in the Route 108 South Area, provided aesthetic and highway access management considerations are met

Commercial and Industrial Development

Cambridge encourages commercial and industrial development within the community where that development is in keeping with the scale and character of the community, is compatible with adjacent land uses, and is sensitive to the inherent limitations of the land and community services. Careful consideration should be given to siting of any commercial or industrial use to minimize impact on neighboring properties.

Commercial Goods & Services

Land uses associated with commercial goods and services are typically those which are responsible for the distribution of goods and services and do not add value to a commodity. These include businesses such as wholesalers, retailers, and professional services.

These land uses should be encouraged both separate from, and where appropriate, mixed with residential development in or near Village and Growth areas. Small home businesses are acceptable in the rural residential area, provided such businesses are of a scale and design that is in character with the surrounding neighborhood. Strip development along highway corridors is strongly discouraged.

Commercial development should be of such scale and character so as to be compatible with existing land uses and structures and considerate of the availability and affordability of housing for employees and the availability and capacity of municipal services. Such development is encouraged to be clustered in such a way so as to minimize impact on resource lands, traffic congestion, aesthetics, and municipal services and should make efforts to lessen the proliferation of signs and lighting.

Commercial recreational opportunities are encouraged throughout the community. Any new commercial recreation should serve to enhance Cambridge's viability as a quality, small-scale resort community by taking advantage of the community's natural assets, existing recreational opportunities, and rural landscape.

Industrial

Land uses associated with industrial development are generally those which add value to a commodity or product. These may typically be defined as those involved in the manufacture, processing, fabrication, packaging, or assembly of goods. In addition, firms involved in the movement, storage, and in some cases sales of products are included. Such uses might also include trucking, construction, and warehousing.

Industrial development should be of such a scale and character so as to be compatible with existing land uses and structures and is encouraged to locate near public facilities, such as water, sewage, and power. Associated space and access requirements and noise and traffic impacts should be considered when locating in or near village centers. Industrial development should be developed sequentially so as to minimize the potential burden on the community's services and infrastructure. Industrial development must also be considerate of potential impacts on water and air quality, adjacent land uses, resource lands, transportation systems, the availability and affordability of housing for employees, and the visual landscape.

In order to achieve the character and scale of industrial uses to be compatible with existing land uses and structure, industrial uses can be classified by their intensity of use. Higher intensity, heavy industrial development is expected in the Enterprise area. This includes industrial processing that uses flammable or explosive materials and/or potentially hazardous conditions, those that emit noxious fumes or obnoxious noise and lighting, or those with heavy truck traffic.

Lower intensity, light industrial uses could locate in Villages provided they are not disruptive to the nearby village setting. This would include processing, packaging, or assembling goods, technology or research based facilities, artist/artisan studio space, and indoor storage/warehousing of goods incidental to the principal use. Such uses would not require unenclosed structures or outside storage, would not cause adverse environmental pollution, would not emit noxious fumes or obnoxious noise and lighting. Such low intensity industrial uses must be designed to fit into the existing historic character and pedestrian scale of the Village. These uses would have minimal adverse impacts. Examples of low intensity industrial uses could include value-added food and drink processing facilities.

Small home industries should be permitted in rural residential provided they are of a scale and design that is in character with the surrounding neighborhood.

Future Land Uses and Areas

Land Use ties together each of the other elements found within this Plan. This section provides a broad vision of Cambridge's future and provides general guidance on limitations and considerations for future land development. This section discusses the proposed land use areas and land uses.

General Land Use Statement

Cambridge is located along a major transportation corridor and between several major employment centers. As a result, Cambridge has evolved into a bedroom community in which many residents commute outside of the town for employment. It is likely that Cambridge will continue to experience increasing residential and commercial development pressures.

At the same time, it is the desire of many residents to maintain the qualities that make Cambridge attractive in the first place. Many of these qualities are the result of a development pattern that has evolved within the community over the past 200 years.

To this end, new growth and development should generally be focused toward five areas in the Town of Cambridge. These areas include the Village of Cambridge, Cambridge Junction, the Ski Area, the Industrial Area, and Jeffersonville. The type and intensity of development in each area will vary based as discussed below. Together, these areas are referred to as Village and Growth Areas in this Section and throughout the Plan.

Areas within Cambridge

Village of Cambridge

The Village of Cambridge is a historic center with higher density residential development, commercial establishments, agriculture, and industrial uses consistent with the scale and surroundings. Until such time as sewerage or other off-site wastewater treatment options become available, density will be limited by the soils' ability to absorb on-site septic systems.

Despite the limitations created by lack of wastewater, there is still potential for some small-scale businesses in these village areas. Certain commercial uses, such as offices and retail stores, require significantly less wastewater capacity than residential uses, making commercial use of existing structures on small village lots a viable option. For up-to-date guidance from the State of Vermont, please visit: <http://dec.vermont.gov/water/ww-systems>.

As a result, property owners could conceivably develop new, small businesses in existing buildings and lots within Cambridge Village. None-the-less, the Table also demonstrates the limits of this option. For example, it would be difficult to develop even a moderately sized café on many village lots without additional wastewater capacity. If the lack of sewage capacity is identified as an issue, or if failing on-site wastewater systems becomes an issue in the future, the community should investigate the feasibility of alternatives

such as developing a decentralized wastewater system (a single or series of community leach fields) or connecting to an existing sewage treatment plant.

Agriculture is expected to continue especially in the flood hazard area in the north and in large agricultural parcels in the southern portions of the village.

Cambridge Junction

Cambridge Junction is expected to continue as a small cluster of commercial, residential, and industrial development. Cambridge Junction is connected to the Village of Jeffersonville by the Cambridge Greenway, Lamoille Valley Rail Trail, and Route 15. Cambridge Junction is also located close to the Windridge Trail System on Junction Hill Road. As further investments are made into amenities such as a LVRT trailhead and river access, Cambridge Junction may grow into a hub for recreational development.

Smugglers' Notch Resort

Smugglers' Notch Resort has been provided its own area on the grounds that it has its own sewage treatment facility. The resort is expected to have a mix of residential, commercial, and recreational development. Protection of the scenic and aesthetic qualities of the area, both within and outside the resort, is critical. When feasible, development in this area should be accessed via Route 108, or private roads managed by the resort, rather than public side roads. If side roads are used to access major development related to the resort, improvements to the roadway and road structures, commensurate with new traffic generated, should be required to accommodate additional traffic.

Cambridge Industrial Park

The Enterprise area was established to provide an area for industrial growth that has good highway access and where businesses can operate without conflict with residential areas. Most lots in the Enterprise area are fully developed, with the exception of several small lots with severe restrictions to development due to steep slopes.

Jeffersonville

The Village of Jeffersonville is an important commercial, civic, and residential center. Information about future land uses planned for Jeffersonville may be found in the Jeffersonville Village Plan.

Route 108 South

This area includes lands along Route 108 south of Jeffersonville. This area has been established to balance the pressure of commercial and visitor development with aesthetic and scenic concerns as well as the need for safety along this highway corridor. In the future, development in this area should be of a scale and character that maintains the historic feel of the road and continues to protect stretches of open space along the route to the notch.

This corridor provides access to the Smugglers Notch Resort, other tourist destinations, and the Smugglers Notch Scenic Corridor. The scenic nature of this route, which includes views of the Sterling Range, Brewster River Valley, and Mount Mansfield, is also an important facet of this area. Finally, many residents from Cambridge commute to destinations in communities to the south. Development in this area should be

designed to balance these sometimes competing objectives. When feasible, shared access points and/or internal circulation roads should be developed between parcels along Route 108 South. Further, new buildings and development sites should be designed and located so as to minimize disruption of scenic views along the corridor.

In order to prevent the appearance of strip development along Route 108, the most intense development should be focused toward existing development clusters located between Pratt and Stebbins Road. Mixed use development is encouraged in this area, as is seasonal worker housing. Several notable open green spaces exist in this area. Development on these parcels should attempt to retain green space, and organize new structures to give the appearance of a “village green” or foreground meadow. Pedestrian connections, either sidewalks or recreational trails, are encouraged to connect developments within this area.

Rural residential

The rural residential area is a broad area covering lands all over Cambridge. Development within the rural residential area should be consistent with specific site conditions and at a scale consistent with its proximity to major highways and existing growth centers. Protection of open space and natural resources and the maintenance of existing working landscapes are additional objectives in these areas.

Conservation/Forest

The conservation/forest area has been established to protect the scenic ridgelines and to provide an upper elevation limit (1500 feet) where development may occur in Town. The conservation/forest area will provide habitat for wildlife, wilderness for recreation, and large tracts of working forestland. Lands within this area should receive high priority for conservation funding.

Flood hazard area

The purpose of this area is to minimize and prevent the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary expenditures and demands on public services that result from floods. Lands within this area should receive high priority for conservation funding.

Board Approved
09-25-2017

Village of Cambridge Designated Village Center

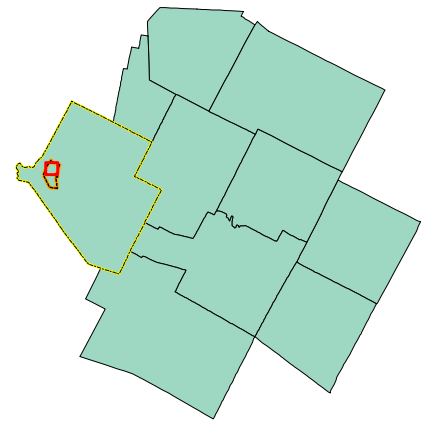
Legend

- Designated Village Center Boundary
- Parcel Boundary
- Religious/Civic
- Commercial/Home Businesses
- Village Boundary



0 250 500
Feet

- 1. Angelina's Restaurant
- 2. Cambridge Regional Health Center
- 3. Cambridge United Church
- 4. Cambridge 360
- 5. Fire House Park
- 6. Cambridge Village Old Rail Station
- 7. Kinney Drugs
- 8. Cambridge Village Market
- 9. Cambridge Post Office
- 10. Gates Farm
- 11. American Legion

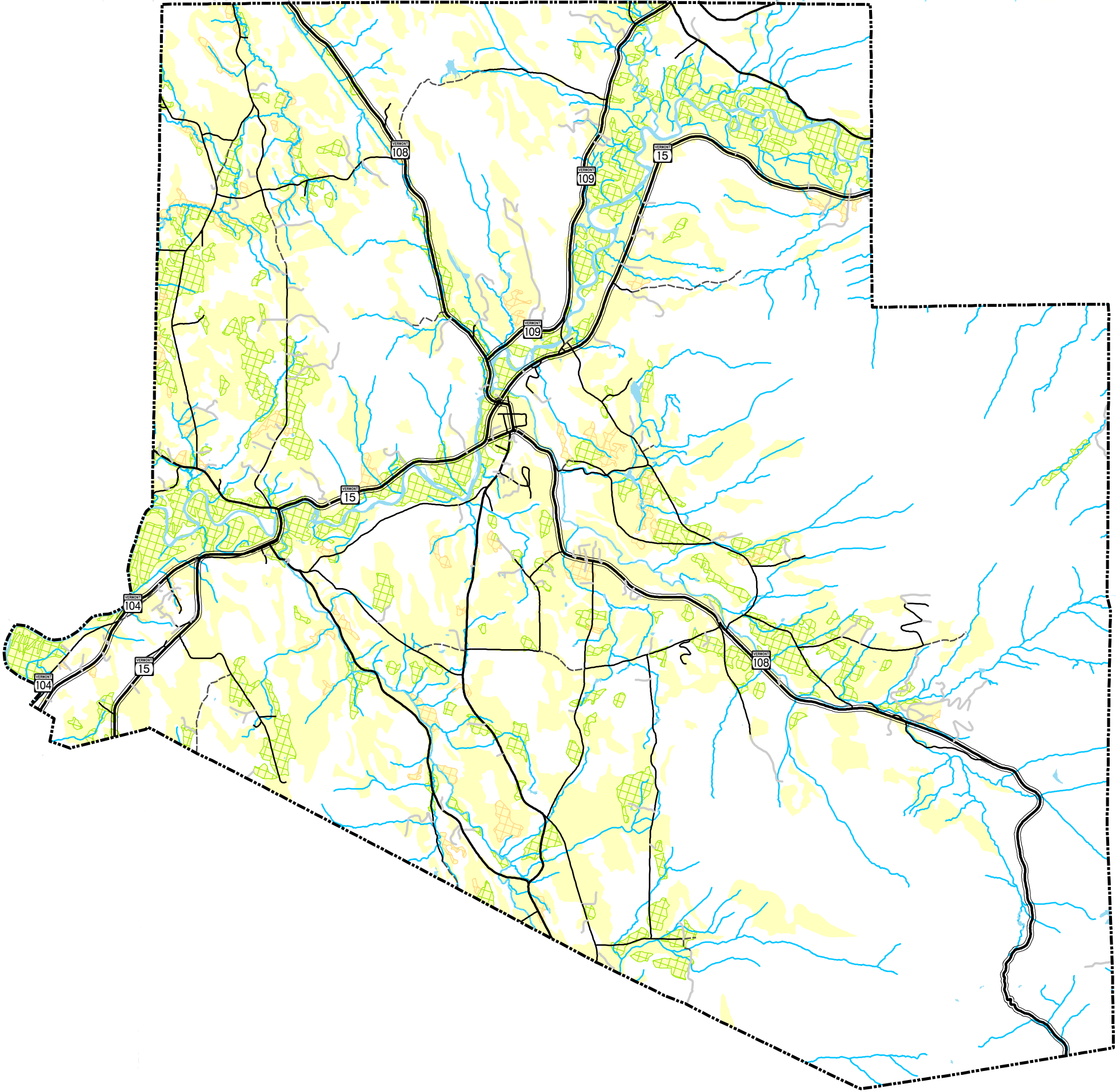


Lamoille County
Planning Commission
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Morrisville, VT 05661
802.888.4548 f 802.888.6938
www.lpcvt.org
August, 2017

Traverse Mercator,
VT State Plane,
Meters, NAD83.

For planning purposes only.
Not for regulatory interpretation.

Agricultural Soils Map
Cambridge, Vermont
2018 Municipal Development Plan



 Stream

 Pond/Lake

 Prime

 Prime (b)

 Agricultural Soils

SOURCES:
SOILS: Optically scanned from 1:20000 USDA-NRCS soil maps, VCGI, 2007.

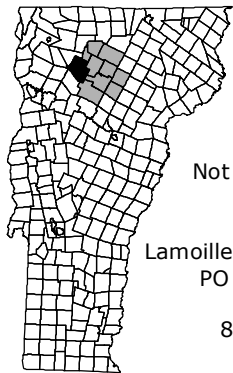
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.

ROADS: VTrans Center Lines, VCGI, 2017.

SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



0.95
mile



Traverse Mercator,
VT State Plane,
Meters, NAD83

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Conserved Lands Map

Cambridge, Vermont
2018 Municipal Development Plan

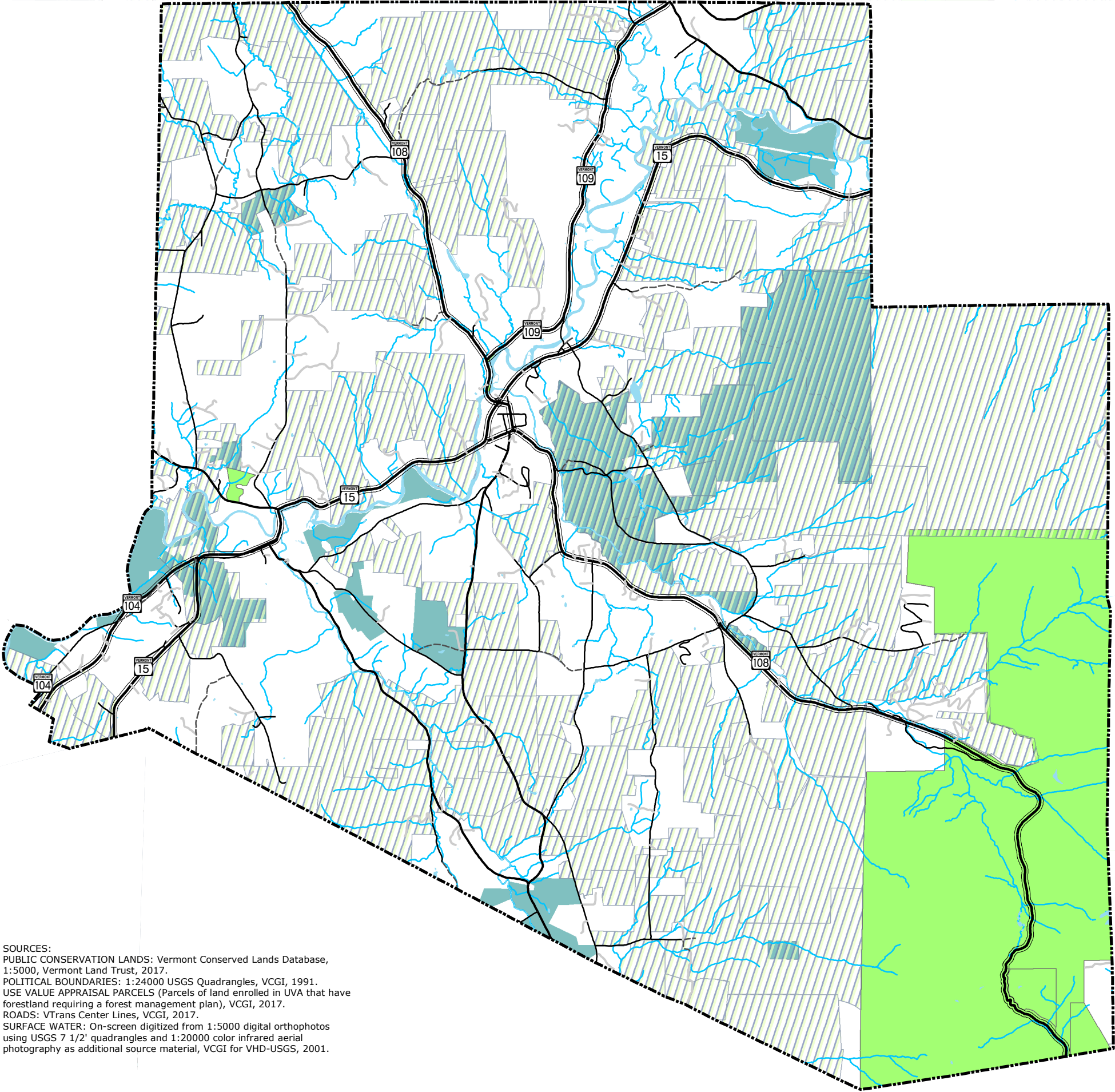
 Pond/Lake

 Stream

 Use Value Appraisal Parcels

 Vermont Land Trust

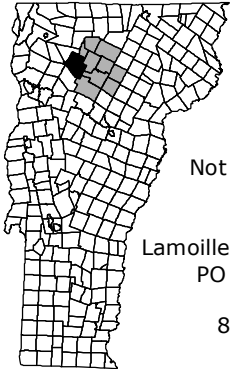
 State Lands



SOURCES:
PUBLIC CONSERVATION LANDS: Vermont Conserved Lands Database, 1:5000, Vermont Land Trust, 2017.
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
USE VALUE APPRAISAL PARCELS (Parcels of land enrolled in UVA that have forestland requiring a forest management plan), VCGI, 2017.
ROADS: VTrans Center Lines, VCGI, 2017.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



1
mile

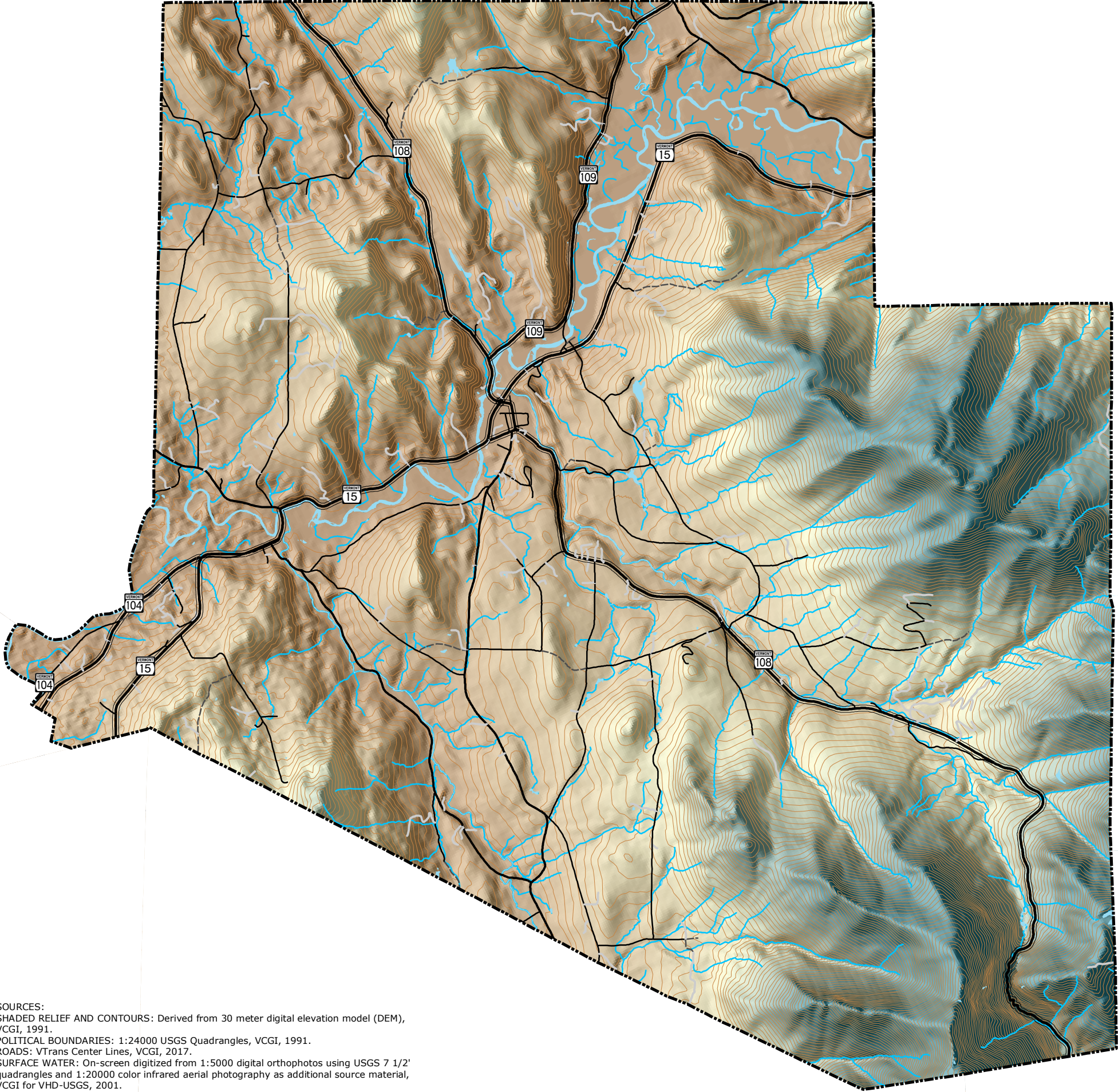


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Contour Map
Cambridge, Vermont
2018 Municipal Development Plan



— 50' Contours

Shaded Relief

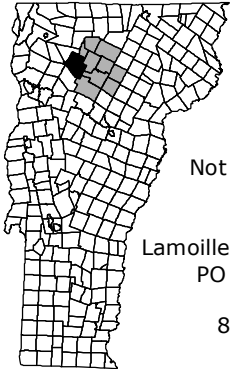
High

Low



0.95
mile

SOURCES:
SHADED RELIEF AND CONTOURS: Derived from 30 meter digital elevation model (DEM), VCGI, 1991.
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: VTrans Center Lines, VCGI, 2017.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



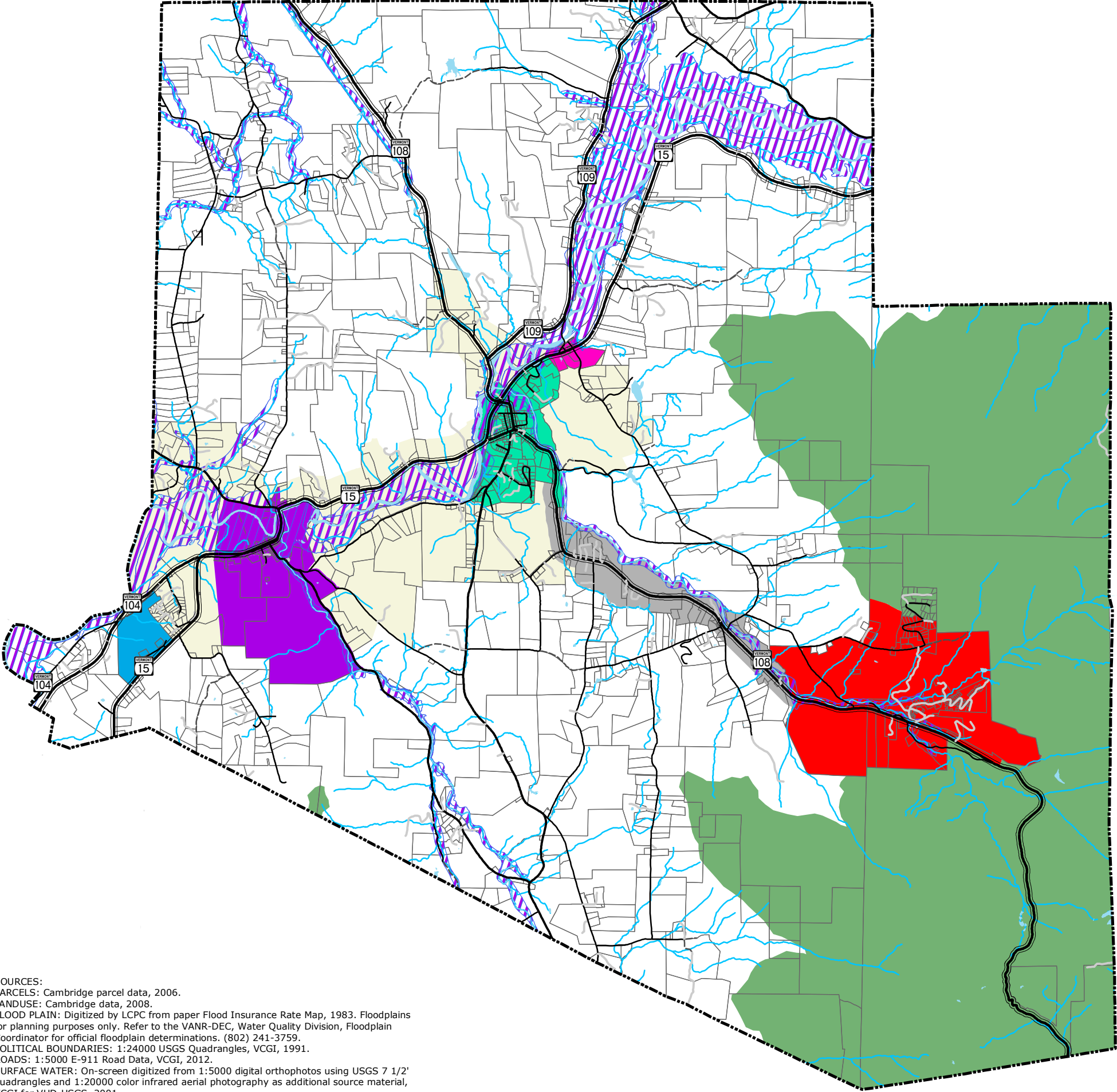
Traverse Mercator,
VT State Plane,
Meters, NAD83

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Future Land Use Map

Cambridge, Vermont
2018 Municipal Development Plan




100 Year Flood Plain


Parcel Boundary

Land Use Areas


Rural Residential


Cambridge Junction


Cambridge Village


Conservation/Forest


Industrial


Jeffersonville

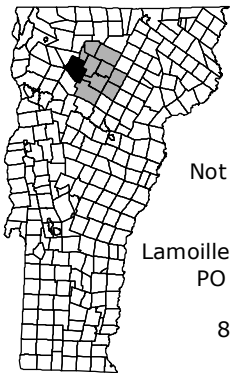

RT 108 South


SKI

SOURCES:
PARCELS: Cambridge parcel data, 2006.
LANDUSE: Cambridge data, 2008.
FLOOD PLAIN: Digitized by LCPC from paper Flood Insurance Rate Map, 1983. Floodplains for planning purposes only. Refer to the VANR-DEC, Water Quality Division, Floodplain Coordinator for official floodplain determinations. (802) 241-3759.
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: 1:5000 E-911 Road Data, VCGI, 2012.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



1
mile



Traverse Mercator,
VT State Plane,
Meters, NAD83

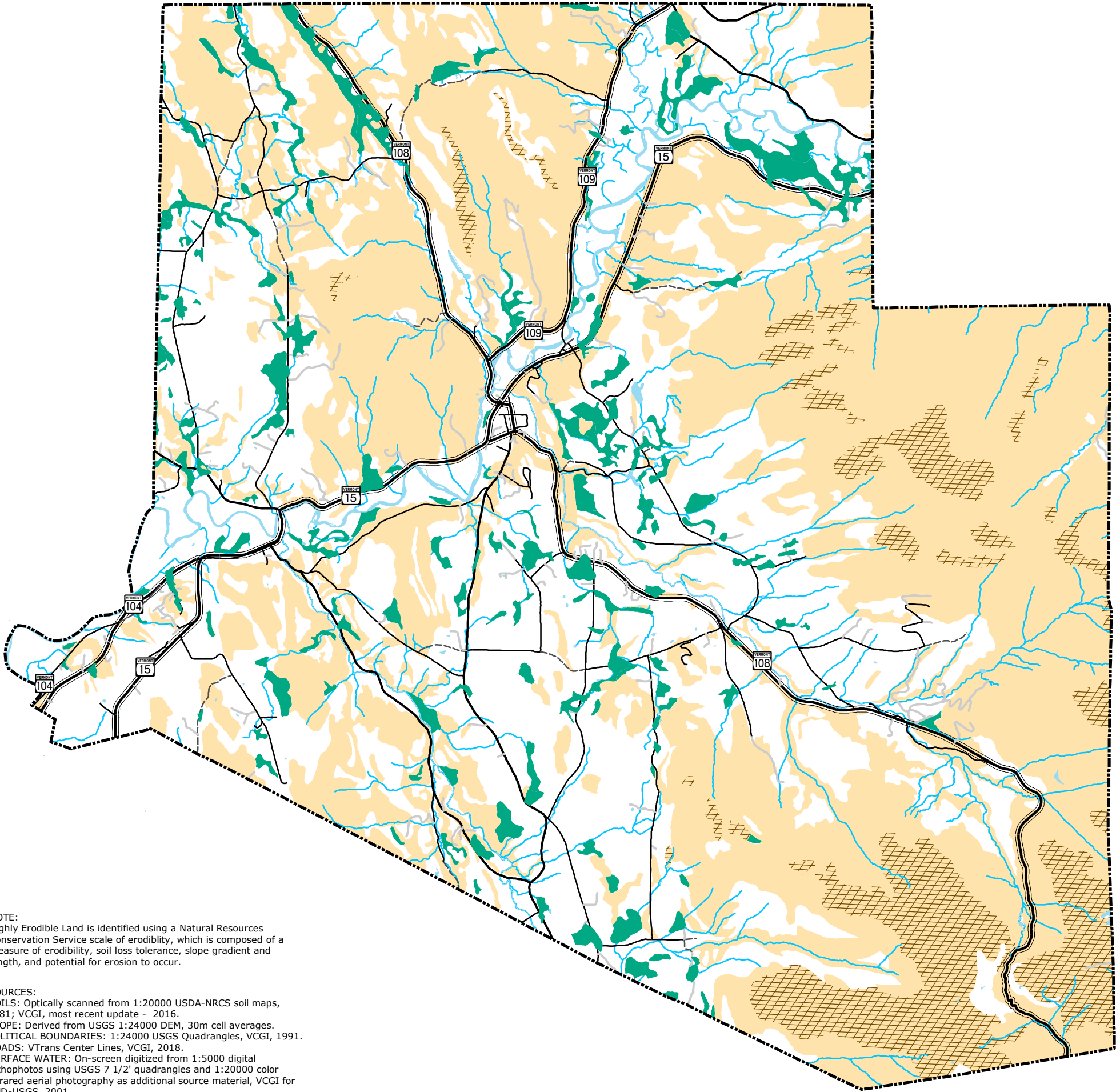
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Soil and Topographic Limitations Map

Cambridge, Vermont
2018 Municipal Development Plan

-  < 24 " to Water Table
-  Pond/Lake
-  Stream
-  < 20' to Bedrock
-  Highly Erodible Land (see note)

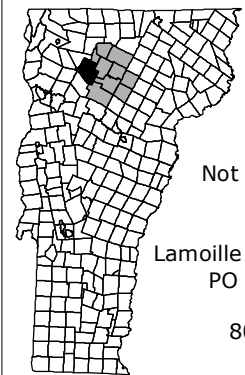


NOTE:
Highly Erodible Land is identified using a Natural Resources Conservation Service scale of erodibility, which is composed of a measure of erodibility, soil loss tolerance, slope gradient and length, and potential for erosion to occur.

SOURCES:
SOILS: Optically scanned from 1:20000 USDA-NRCS soil maps, 1981; VCGI, most recent update - 2016.
SLOPE: Derived from USGS 1:24000 DEM, 30m cell averages.
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: VTrans Center Lines, VCGI, 2018.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



0.95
mile



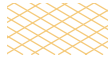
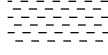
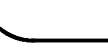
Traverse Mercator,
VT State Plane,
Meters, NAD83

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Soil Resources Map

Cambridge, Vermont
2018 Municipal Development Plan

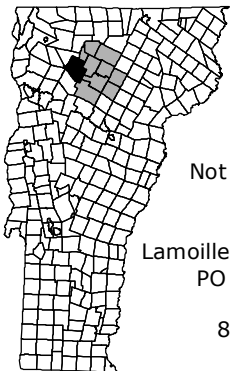
 Sand
  Gravel
  Class I Forest Soil
  Highest Value Ag. Soils
  Primary Ag. Value
  Pond/Lake
  Stream

SOURCES:
SOILS: Optically scanned from 1:20000 USDA-NRCS soil maps, VCGI, 2007.

POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.

ROADS: VTrans Center Lines, VCGI, 2017.

SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



Traverse Mercator,
VT State Plane,
Meters, NAD83

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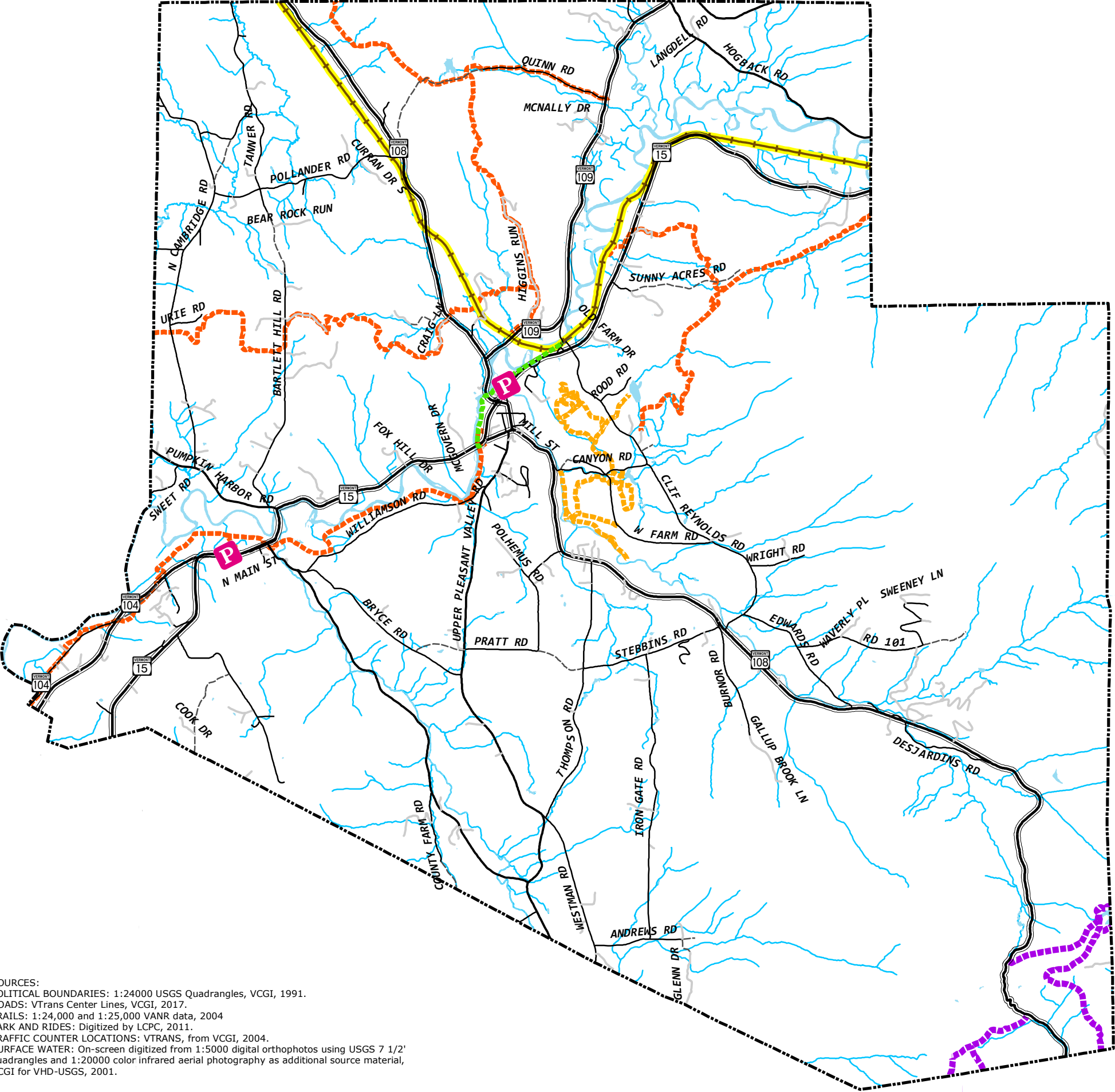
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0.95
mile

Transportation Map

Cambridge, Vermont
2018 Municipal Development Plan



P

Park and Ride

Cambridge Greenway Trail

Roads

State Highway

Class 1 Road

Class 2 Road

Class 3 Road

Class 4 Road

Private Road

Brewster River Uplands Trail

Long Trail

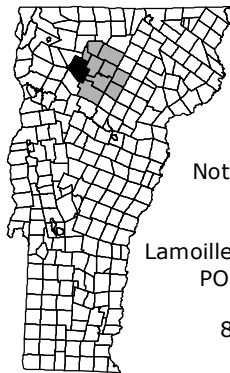
LV Rail Trail

VAST Trail

SOURCES:
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: VTrans Center Lines, VCGI, 2017.
TRAILS: 1:24,000 and 1:25,000 VANR data, 2004
PARK AND RIDES: Digitized by LCPC, 2011.
TRAFFIC COUNTER LOCATIONS: VTRANS, from VCGI, 2004.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



1
mile



Traverse Mercator,
VT State Plane,
Meters, NAD83

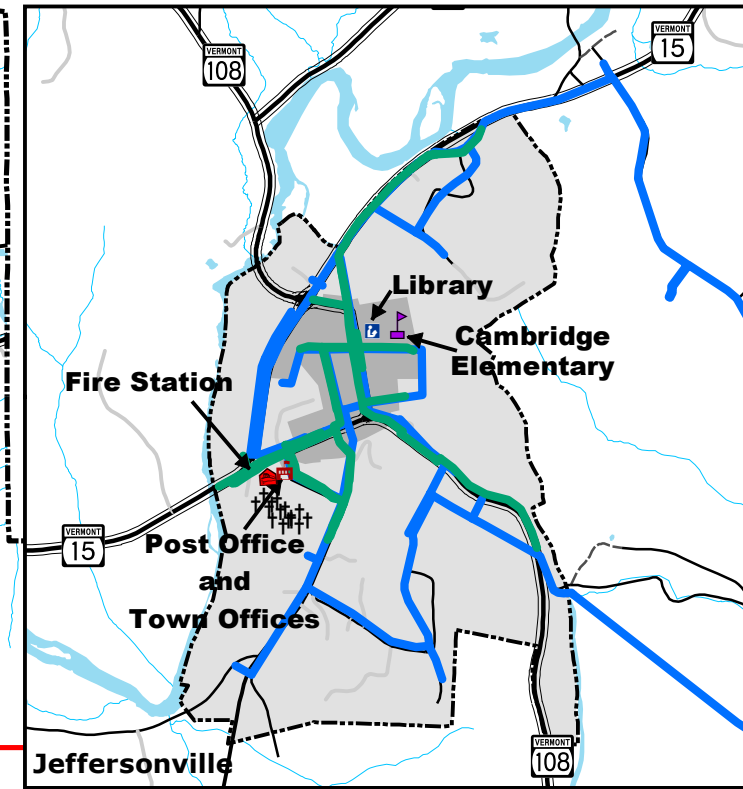
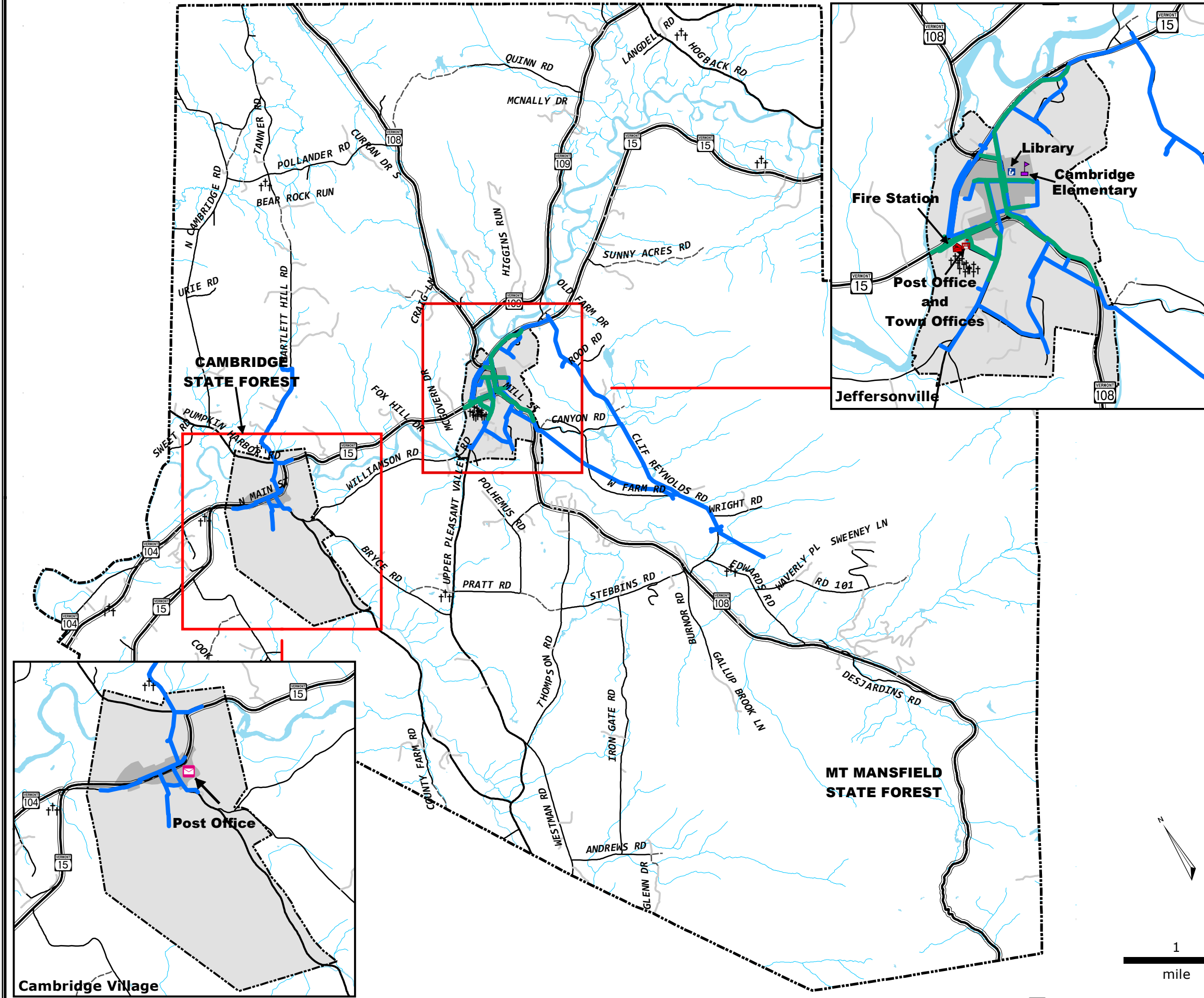
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Utilities and Facilities

Cambridge, Vermont

2018 Municipal Development Plan



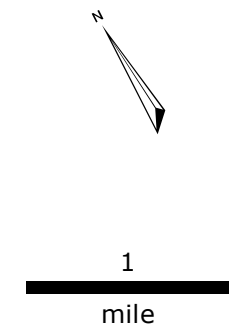
- Sewer Line
- Water Line
- Cemetery
- Designated Village Center
- Village Boundary

SOURCES:
 FACILITIES: Digitized by LCPC, 2013.
 PUBLIC LAND: Conserved lands database, Vermont Land Trust, 2012.
 SEWER AND WATER LINES: Digitized from CAD files, various sources and dates.
 POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
 ROADS: VTrans Center Lines, VCGI, 2018.
 SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.

Traverse Mercator,
 VT State Plane,
 Meters, NAD83

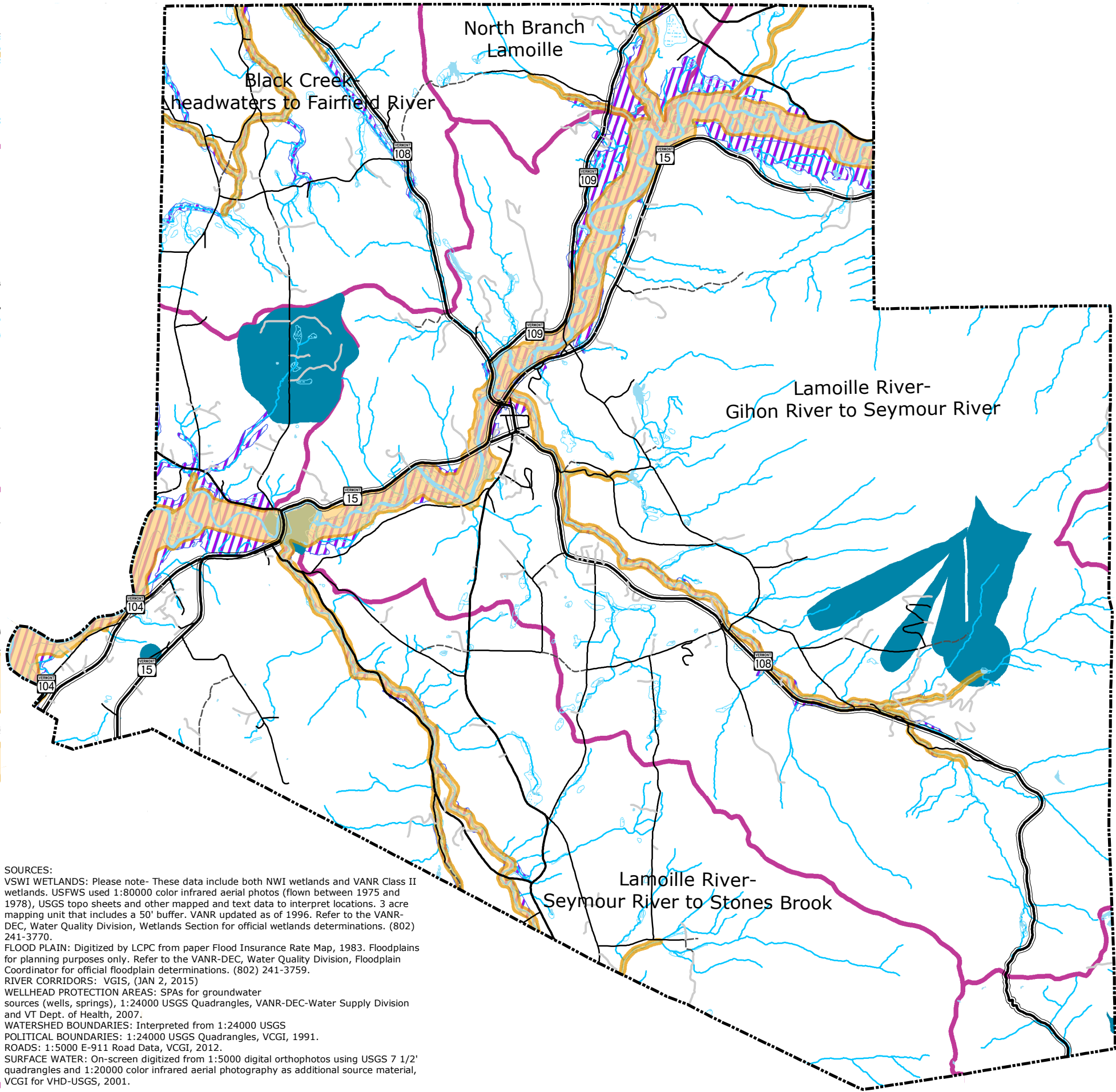
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Water Resources Map
Cambridge, Vermont
2018 Municipal Development Plan

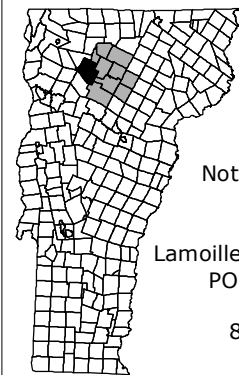
-  Pond/Lake
-  River Corridor
-  Stream
-  Wetland
-  Groundwater Source Protection Area
-  100-Year Floodplain
-  Watershed Boundary



SOURCES:
VSWI WETLANDS: Please note- These data include both NWI wetlands and VANR Class II wetlands. USFWS used 1:80000 color infrared aerial photos (flown between 1975 and 1978), USGS topo sheets and other mapped and text data to interpret locations. 3 acre mapping unit that includes a 50' buffer. VANR updated as of 1996. Refer to the VANR-DEC, Water Quality Division, Wetlands Section for official wetlands determinations. (802) 241-3770.
FLOOD PLAIN: Digitized by LCPC from paper Flood Insurance Rate Map, 1983. Floodplains for planning purposes only. Refer to the VANR-DEC, Water Quality Division, Floodplain Coordinator for official floodplain determinations. (802) 241-3759.
RIVER CORRIDORS: VGIS, (JAN 2, 2015)
WELLHEAD PROTECTION AREAS: SPAs for groundwater sources (wells, springs), 1:24000 USGS Quadrangles, VANR-DEC-Water Supply Division and VT Dept. of Health, 2007.
WATERSHED BOUNDARIES: Interpreted from 1:24000 USGS
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: 1:5000 E-911 Road Data, VCGI, 2012.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.



0.95
mile



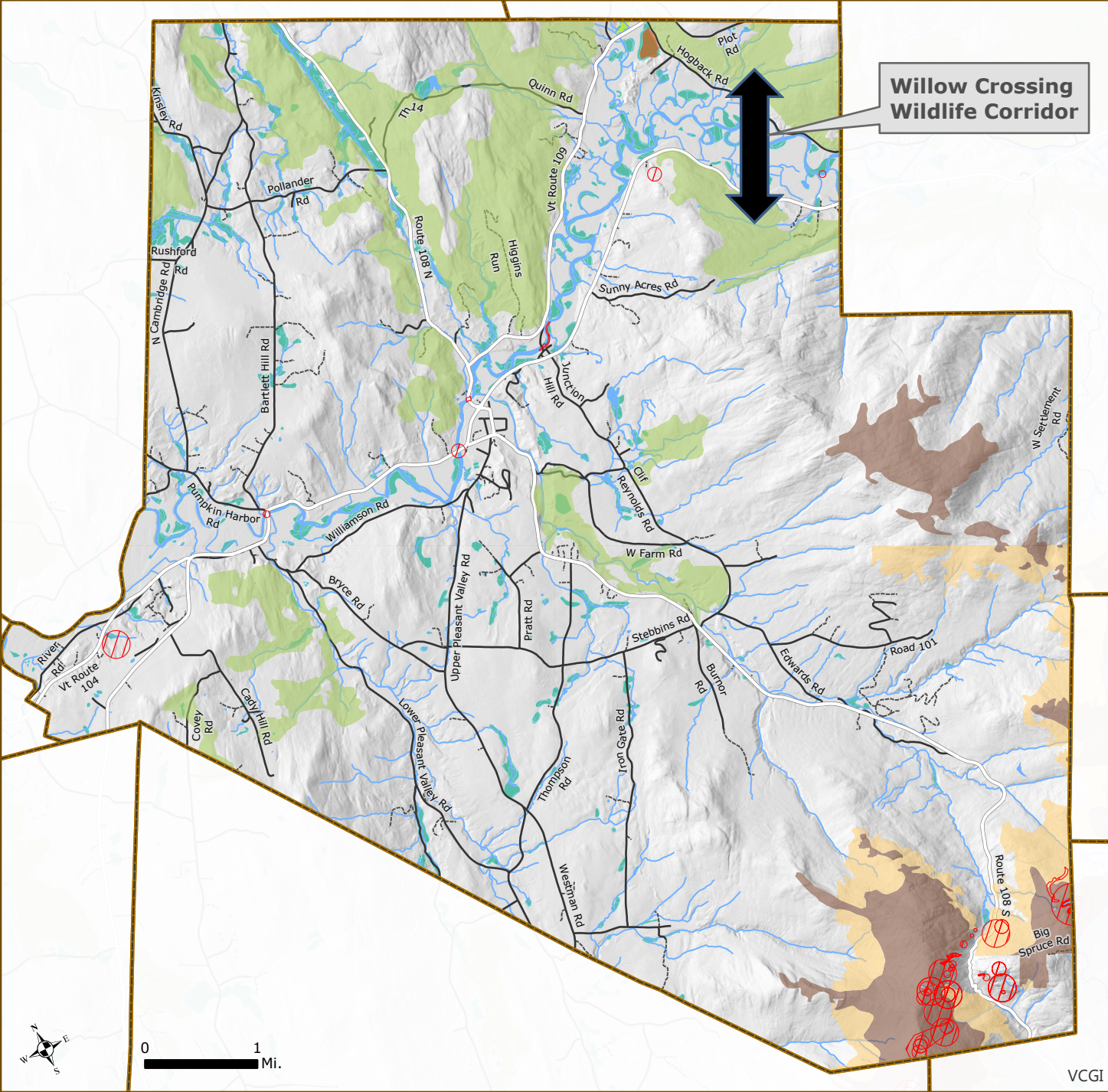
Traverse Mercator,
VT State Plane,
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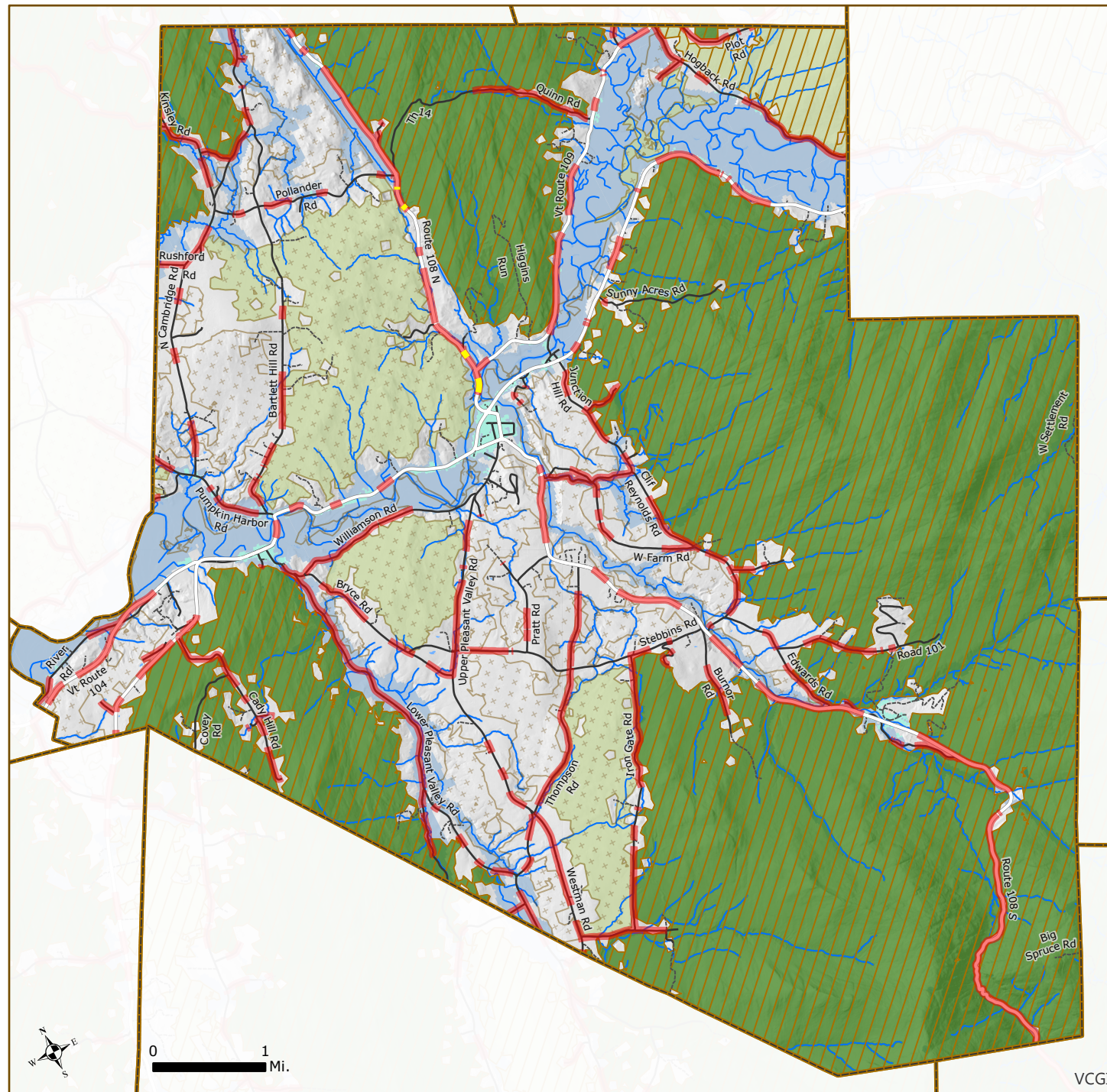
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Critical Habitats

Cambridge, VT



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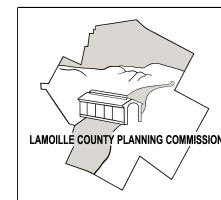


Map Key

- Highest Priority Connectivity Blocks
- Priority Connectivity Blocks
- Highest Priority Interior Forest Blocks
- Priority Interior Forest Blocks
- Highest Priority Wildlife Crossings
- Priority Wildlife Crossings
- Riparian Wildlife Connectivity
- Highest Priority Surface Waters and Riparian Areas
- Priority Surface Waters and Riparian Areas
- State Highway
- Town Highway
- Private Road
- Legal Trail
- Waterbodies
- Streams

Data Sources:

Roads: VTrans Center Lines, VCGI, 2017.
 Surface Waters: VCGI for VHD-USGS, 2001.
 Connectivity Blocks, Forest Blocks, Wildlife Crossings and Riparian Corridor: Vermont Conservation Design, 2015, via VCGI, downloaded 2017.



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