

2015
WESTFORD
TOWN PLAN

First Adopted: July 1971
MOST RECENT ADOPTION: May 14, 2015

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* Note: These maps were done in **color**, 11"x17" format, and are available for review at the Town Office. Digital versions (Adobe PDF) of the maps are also available. The maps can also be viewed on the Town of Westford web site at: www.westfordvt.us

1 INTRODUCTION

1.1 Forward

The Westford Town Plan is the principal policy statement for the Town of Westford presenting a snapshot of existing conditions and a vision for the future. Specifically addressed in this plan are the following subjects: demographic trends, housing, economic development, natural resources, greenways and trails, energy, facilities, utilities and services, education, transportation, historic resources, future land use, and flood resiliency.

The plan is implemented through Westford's various regulations and ordinances, which include the Zoning Regulations and Subdivision Regulations, as well as its boards, commissions and committees.

1.2 Purpose

1. Provide a framework for planning the future of the Town.
2. Serve as a policy document in the Act 250 process. Any ambiguities in this plan shall be resolved by reference to the Westford Zoning and Subdivision Regulations.
3. Provide a framework from which the Zoning Regulations and Subdivision Regulations can be updated and amended.
4. Serve as a source of data to be used by Town officials, residents, potential residents and businesses in Westford.
5. Recommend studies or other programs to address specific community issues.
6. Serve as the basis for the Capital Budget and Program, All Hazards Mitigation Plan, and other implementation measures, as needed.

This Plan is founded on the assumption that landowners have the right to use their property, providing their use does not endanger the health, safety, and welfare of other residents of Westford, as well as providing that the use conforms to all local regulations and ordinances including the Zoning Regulations, Subdivision Regulations, and Health Ordinance.

1.3 Vision Statement

Westford will plan for and manage growth while protecting and preserving the rural character, historical sites, natural resources, and working land of the Town. We envision a Town Center Area with a mix of commercial, residential, and municipal uses designed to promote community interaction and identity. We also envision a sustainable, working landscape in Westford's rural areas that allows low density residential use and low density, small scale commercial use in appropriate areas while preserving the Town's essential rural character and conserving the Town's natural resources and working lands. Westford will search for innovative ways to achieve higher density growth in the Town Center Area and conserve open space outside of the Town Center Area.

In the interest of stabilizing the tax rate and ensuring the most efficient use of community resources, innovative techniques and grants shall be used as much as possible to enhance this vision of the Town.

1.4 Priorities

The following list outlines the Town of Westford's top implementation priorities for the time period between 2015 and 2020:

1. Proposed Westford Land Use & Development Regulations
 - a. Implement Form Based Zoning in Town Center Area.
 - b. Implement Context Sensitive Design for non-residential development along paved corridors.
 - c. Implement unification of the Westford Zoning & Subdivision Regulations.
(Refer to *Section 11 -Implementation Plan* categories titled *Town Center, Economic Development & Natural Resources*)

2. Town Center Area Vitality
 - a. Implement Form Based Zoning in Town Center Area.
 - b. Study & Develop innovative community wastewater systems to serve municipal facilities, community facilities, existing development and future growth in the Town Center Area.
 - c. Implement the *Westford Town Common – Conceptual Master Plan*.
(Refer to *Section 11 -Implementation Plan* category titled *Town Center*)

3. Natural Resource Conservation
 - a. Conduct a town-wide natural resource inventory.
 - b. Preserve working lands (agriculture & silviculture).
 - c. Develop a Forestry District and/or Conditional Use Review criteria in order to preserve and conserve Significant Natural Resources.
 - d. Investigate creation of a local land trust to assist property owners in the conservation of lands containing valued natural resources.
(Refer to *Section 11 -Implementation Plan* category titled *Natural Resources*)

4. Town Services with Consideration of Demographic, Economic & Technological Trends.
 - a. Develop and implement emergency preparedness, response and recovery plans.
 - b. Maintain and improve the public road system.
 - c. Enhance communications infrastructure to serve the Town.
(Refer to *Section 11 -Implementation Plan* categories titled *Transportation & Emergency Preparedness & Response*)

1.5 General Goals

The Town of Westford has established the following goals based on the results of community surveys, public forums and opinions contributed by the citizens of Westford. These Goals have been developed to meet the challenges and opportunities that face Westford now and into the future.

1. Preserve Westford's unique rural character and conserve open spaces outside of the Town Center Area, while respecting landowner rights and allowing low density development in appropriate areas that do not have significant value to the town in terms of natural resources, aesthetic value, and cultural, historical and economic importance.
2. Maintain and improve a strong sense of community to bolster citizen participation, cohesion among residents, and an overall sense of Westford as a unique and valuable town.
3. Protect and encourage agricultural and forestry activities, and recognize the social and economic benefits they contribute to the community.
4. Plan for the development of the Town Center Area in such a way that higher density, mixed use development is encouraged and appropriate infrastructure exists, or is planned for, to allow this area to serve as the Town's growth center.
5. Recognize the importance of our historic background and historic structures and encourage the preservation and protection of our historic and cultural resources.
6. Work towards community self-sustainability by reducing the amount of solid waste generated and energy consumed, harnessing alternative energy sources, and fostering the production of agricultural products.
7. Identify and address transportation related problems and increase alternatives to automobile based transportation and promote public transportation.
8. Continue cooperation and coordination between all segments of Westford's town government to foster a sense of community and implement economic development goals.
9. Encourage the development of small scale business to increase local employment options and opportunities.
10. Encourage a diversity of housing types, including affordable and elderly housing.
11. Ensure that residents are provided with an adequate level of town services and infrastructure and that new growth does not outstrip the town's ability to continue to provide this level of service to existing and future residents.
12. Encourage diverse recreational opportunities for all residents.
13. Encourage conservation and appropriate stewardship of natural resources, natural areas, wildlife corridors, waterways, floodplains, scenic areas, open land, forest land, steep slopes and sensitive areas.
14. Encourage the development, use and conservation of public trails.

1.6 Planning Process

The Town of Westford has been involved in comprehensive planning since 1972. With the assistance of the Chittenden County Regional Planning Commission, a municipal plan was developed and adopted which laid the groundwork for developing the Zoning and Subdivision Regulations that provided for orderly growth in our community. Over the years, various amendments to the plan and regulations have been adopted in order to respond to ever-changing conditions and to manage growth.

The Town of Westford has an appointed Planning Commission, whose duties include preparing the Town Plan, Subdivision Regulations and Zoning Regulations and presenting those draft documents to the Selectboard for approval as well as carrying out and implementing planning studies. In 2008, the Town moved from a Zoning Board of Adjustment and Planning Commission to a Planning Commission and Development Review Board form of government. The full-time Planning Coordinator, whose duties include preparing board documents, providing technical assistance, and serving as a liaison between the public, local boards, and regional, state and federal agencies, staffs both the Planning Commission and Development Review Board.

Comprehensive planning represents a community's best effort to examine its past and its present and to set a course for the future. The concept of community is important to Westford residents and maintaining it is becoming more challenging.

This plan is a revision of the 2010 Town Plan.

1.7 Relationship to Plans for Adjacent Towns and the Region

This Plan is generally compatible with both the Chittenden County ECOS Plan (2013) as well as Town Plans from the surrounding municipalities.

Chittenden County ECOS Plan (2013) – Westford’s Plan embodies the same focus on village growth centers that is emphasized in the ECOS Plan. Westford’s Plan seeks to accommodate a limited share of the County’s growth and development where feasible, recognizing the Town’s infrastructure limitations, and that the County’s core metro and transition areas will continue to be the primary focus for future development. It also recognizes and seeks to conserve the significant natural resources and open spaces that make Westford an important part of the County’s rural landscape.

Georgia (minor portion of north-west corner) – The Georgia Town Plan identifies one land use area along the border. The Recreational Zoning District (20 acres per lot) encompasses a mountainous area of Town, which is generally unsuitable for development due to steep slopes, poor soils and high elevations. Maintaining land in its natural state for environmental and recreational purposes is the primary goal of this District. The Westford Plan is largely compatible with the Georgia Plan, especially given the low density development, steep slope and natural resource conservation goals described in Westford Town Plan.

Fairfax (majority of northern border) – The Fairfax Town Plan identifies three land use areas along the border. They are the Residential, Conservation and 100 Year Flood Zone Overlay Zoning

Districts. The Residential District (1 ½ acres per lot) encompasses areas suitable for development located outside of, but adjacent to, Fairfax's Growth Center and Mixed Use Zoning Districts. The Conservation District (5 acres per lot) encompasses lands that are generally not suited for development and contain significant natural resources. Conservation of significant natural resources is the primary goal within this area. Therefore, clustering is encouraged in this District to preserve working lands, natural resources and the rural character. The 100 Year Flood Zone District encompasses significant rivers and streams with floodplains. This District is generally unsuitable for development. Protection of water resources for recreational, water quality and disaster prevention purposes is the primary goal of this District. The Westford Plan is generally compatible with the Fairfax Plan given water resource conservation, natural resource conservation and flood resiliency goals described in Westford Town Plan.

Cambridge (portion of northern border) – The Cambridge Town Plan was amended in 2013, but Cambridge still does not regulate growth and development via zoning. Subdivision regulations were adopted in 2006 and a land use map was created in 2008. The land use map identifies the area adjacent to Westford as Rural Residential and Agricultural. This zoning designation/concept is generally compatible with Westford's Plan for this area of the Town. Route 15, a major transportation corridor, runs through the northeast corner of Westford and continues into Cambridge via the shared northern boundary. Westford's Plan envisions small scale business in this area which is consistent with current uses and development in this area of Cambridge. Additionally, Cambridge is in the process of drafting flood hazard regulations. The Westford Plan is generally compatible with the Cambridge Plan given rural residential, agricultural and flood resiliency goals described in the Westford Plan.

Underhill (eastern border) – Underhill identifies the bulk of the border area as Rural Residential, which allows medium density development in suitable areas. The Underhill Town Plan notes that Planned Unit Developments are available to property owners, but does not specifically encourage or require them. Underhill also identifies and seeks to protect streams and wetlands in this area, similar to Westford's efforts to protect its water resources. The Underhill Plan is generally compatible, although the base density for its rural residential area (3 acres per lot) is substantially greater than Westford's Agricultural, Forestry and Residential 1 District (approx. 10 acres per lot). However, a small portion of the border is located in the Soil and Water Conservation District, which seeks to protect significant natural resource with the larger minimum lot sizes (15 acres per lot). The Westford Plan is generally compatible with the Underhill Plan given its Soil and Water Conservation District and water resource conservation goals described in the Westford Plan.

Jericho (minor portion of south eastern border) - Westford shares a small boundary with Jericho along its southeastern corner. The Jericho Town Plan designates this area as Agricultural. The purpose of this area is to provide open land for agriculture, forestry, and rural housing. Minimum lot density is 10 acres and planned Unit Developments are encouraged within this area. This designation is compatible with Westford's Plan.

Essex (southern border) – The Essex Town Plan designates areas along Route 128, Pettingill Road, Chapin Road, and Old Stage Road as Agriculture Residential. Planned Unit Developments are encouraged in this area. The base density for this area is somewhat higher (3 acres per lot) than in

Westford's Agricultural, Forestry and Residential Districts I and II (5-10 acres per lot). Areas within the Browns River and Alder Brook River are designated as floodplain. As in Westford, development is severely restricted in these areas. The remainder of the border areas with Westford is designated as Conservation. Only low density development (10 acres per lot) is permitted in this area. The Westford Plan is generally compatible with the Essex Plan given the rural residential, agricultural and flood resiliency goals described in the Westford Plan.

Colchester (minor portion of south-western border) - Colchester identifies the area bordering Westford as Agriculture. It is composed primarily of agricultural lands and very low density housing (25 acres per lot). This is compatible with the land use on the western half of Westford, which is designated as the Agriculture, Forestry and Residential I Zoning District (10 acres per lot).

Milton (western border) – Milton's eastern border is identified as one of Milton's main rural areas. It is composed primarily of low density residential with agricultural and forestry uses. Soil conditions and topography pose development constraints in much of this area. Milton has designated their boundary area as Forestry/Conservation/Scenic Ridgeline (approx. 14 acres per lot) and Agricultural/Rural Residential (approx. 9 acres per lot) Zoning Districts. This is compatible with land use on the western half of Westford, which is designated as the Agriculture, Forestry and Residential I Zoning District.

1.8 General Goals & Objectives

Communications with Adjoining Towns - Communicate and work in conjunction with adjacent towns to ensure adjoining zoning districts have compatible uses and to determine the effect of increased development and commuter traffic on roads used for regional travel.

2 HISTORIC FEATURES

2.1 Policy

It is the policy of the Town of Westford to consider the effect of new development on historic resources early in the planning process so that impacts can be identified and assessed. Most historic resources are privately owned, but their preservation should be encouraged because of their important character and community function.

2.2 Inventory & Discussion

2.2.1 Introduction

Westford's historical resources provide tangible links between past and present. The Town's historical resources range from evidence of earliest human settlement in the prehistoric period to mill sites abandoned in the early twentieth century. Many of Westford's residences and other structures, including barns, churches, library and covered bridge are historic (over 50 years old, and often much older). Much of the landscape can be considered historic: field patterns, stone walls, woodlots, sugar maple stands and roads are the reminders of past residents and their activities.

Some evidence of the Town's heritage is familiar and easy to recognize, such as the Town Common, the covered bridge, cemeteries, and agricultural fields. Equally important historic resources are less familiar; including Native American camp sites along the Browns River which are thousands of years old, extensive sawmill remains next to Roger's Brook and old farmsteads.

2.2.2 Westford's Past

Westford was granted as a town on June 8, 1763 to Henry Franklin and 64 associates in a charter from King George III signed by Gov. Benning Wentworth of New Hampshire. The town as granted covered 36 square miles (23,040 acres). The first settlers did not arrive until the 1780's. By 1791, the Town's population was only 63. The first Town meeting was held on March 25, 1793, during which the Town was organized.

The Browns River flowing north through town afforded good mill privileges to the early nineteenth century residents. The first sawmill was started by Elisha Baker in 1795. Soon after, Joshua Stanton built a forge and gristmill, which attracted settlers to the village center. The population in 1810 was 1,107 and by 1850 it had increased to 1,458. In the late 1800's, the village had two stores, three blacksmith shops, a cabinet and wheelwright shop, one sawmill, a gristmill, a cider mill, a cheese box factory, a tannery, a school, and two doctors. The population in 1880 was 1,133.

Westford has always been an agricultural town. In an 1881 gazetteer listing of some 311 households, only 64 did not list farming as an occupation. Brookside was a thriving neighborhood at one time. From 1893 to 1910, it had its own post office. A variety of industries were located there, including two sawmills, a cider mill, a boot and shoemaker, a cheese box factory and the Union Cheese Factory Co., which was organized in 1865. The Cloverdale section in the eastern part of Town developed around Westford's only rail stop. The railway ran until 1938. This area was mainly

agricultural, although a dealer in marble, a manufacturer of tombstones, and a creamery were located here.

In the early 1900's, with its industries diminishing, the Town was left primarily a farming and logging community. By 1950, as agriculture became less profitable, the Town experienced a substantial decline in population. In the 1960's, the population expanded and residential development increased. The Town, however, retained its rural character. The influx of people in the 1980's, most commuting to work elsewhere, raised the 1960 population of 680 to 1,740 in 1990. In 1990, there were only seven working farms left.

The Town's first school districts were established in 1797. Eventually 12 were organized. Within each district, parents shared, according to the number of children they had in school, in providing "boarding around" for the teacher and a quota of wood for the school stove. In the 1880-81 annual report, superintendent Macomber noted "...but when we consider that a good school in each district contributes largely to the support of virtue, morality and civil liberty, the sacrifice seems none too great". This comment was made with respect to the year's school expense of nearly \$3,000. By 1951, three school districts were left: in the village, Brookside, and Cloverdale. By the 1960's, the village school was serving nearly all the children in Town. In 1965, the present Westford Elementary School was built and dedicated to Carl S. Paige in recognition of his outstanding service to Westford, including the offices of road commissioner, town representative, and over a quarter of a century as a School Director. Only one of the old one-room school houses still stands, and it has been converted to a residence. The village school was razed in 1971, and the new Town office building was built on the spot in 1973.

Westford's library was started in 1895/96. First located in the lower level of the old Town hall (the present library building), the library opened with 117 books. In 1919, the library and its 3,000 volumes were housed in a small building, which had been built about 1885. This small building was moved twice, serving as a post office between the "hotel" and the bridge and as a store at the upper end of the Common. It was heated by a woodstove that was also used by the librarian, Irene Allen, to treat the children to toasted marshmallows. In 1973, funds to renovate the old Town hall were approved and the library moved back into the building where it began.

The Baptist, Congregational, and Methodist churches were organized between 1798 and 1821. Each group had a building in the village. In 1919 the congregations were federated. Services now are held in the Congregational Church. The Baptist Church is now used for community functions. The Methodist Church was moved north and converted into a barn in the 1920s; the barn was demolished in the 1990's.

In the spring of 1921, Clark B. Paige and Eugene Domingue, with the help of 34 interested townspeople, brought electricity to Town. Electric lines were not installed in the more remote parts of town until 1935, when the Rural Electrification Administration encouraged expansion of electric utilities.

Two and one-half acres for the Common were given to the town by the estate of Elizabeth Camp in 1819. Extensive tree planting on the Common was undertaken in the late 1800's. The only surviving

trees from this effort are those on the level below the Congregational Church. At one time there was a bandstand on the Common which was moved from one end to the other several times during the years that Roland Pigeon and Dan Jackson were strapping young lads. In the late 1800's various networks of walking paths crossed the common connecting the various businesses and residences.

Picturesque landscapes remain throughout the community. Many roads provide historic and contemporary views of farming and rural living. Most of the roads we use today are the original ones laid out by the early townspeople. Cambridge Road came into existence in the late 1820's when the Vermont Supreme Court appointed a committee to survey a market road from Burlington to Derby. Only a few small roads disappeared between 1857 and 1869. In the 1970's roads in the eastern part of Town that hadn't been used for 40-50 years were formally eliminated. Cloverdale is now accessible only by main roads through adjacent towns. Route 128 was first hard-surfaced in the 1940's.

2.3 Historic Resource Goals & Objectives

1. **Historical Society** - It is the mission of the Westford Historical Society to assist the community in protecting the Town's historical and cultural resources. Its objectives include:
 - a. Protect, preserve, maintain, and restore historic structures and sites.
 - b. Educate residents on the historical aspects of the Town.
2. **Cultural & Historical Resource Protection** - Maintain the historic character of the Town Common, Town Common structures, and historical structures located in Town as a whole.

3 POPULATION, HOUSING & EXISTING LAND USE

3.1 Policy

It is the policy of the Town of Westford to encourage the availability of a diverse housing stock that is affordable and accessible to a wide range of current and future residents, provide for an expanding population, and plan to accommodate its proportionate share of regional growth.

3.2 Inventory & Discussion

3.2.1 Population

In order to plan for future development, it is important to understand the elements affecting population growth in Westford. Analyses of population and demographic trends can assist the Town in evaluating present and future needs with respect to town services, housing, transportation, employment, etc. Some of the most basic demographic information is discussed below. More information can be found on the U.S. Census Bureau's American Factfinder website (http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml)

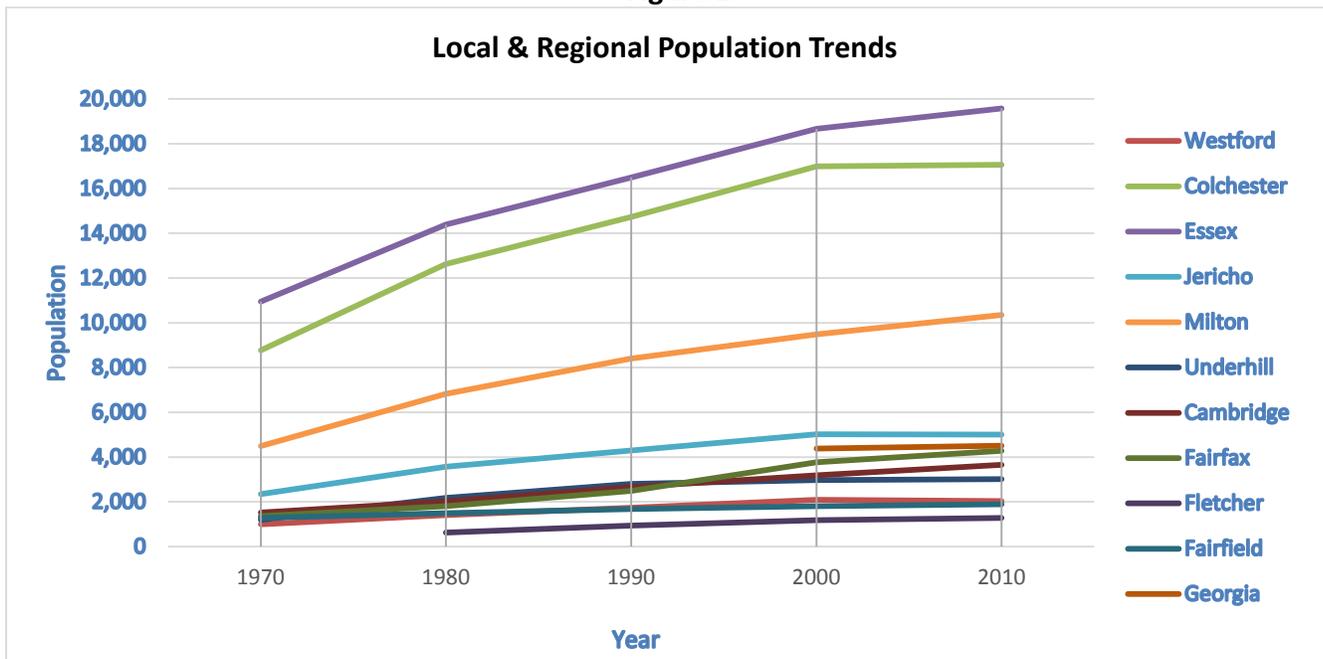
According to the 2010 United States Census, the 2010 population of Westford was 2,029 persons.

Table 1
Local and Regional Population Trends

	1970	1980	1990	2000	2010	% Change
						2000-2010
Chittenden County	99,121	115,525	131,759	146,571	156,545	6.8% ↗
Westford	991	1,413	1,740	2,086	2,029	-2.7% ↘
Colchester	8,776	12,629	14,731	16,986	17,067	0.5% ↗
Essex	10,951	14,392	16,498	18,676	19,587	4.9% ↗
Jericho	2,343	3,575	4,302	5,015	5,009	0% →
Milton	4,495	6,829	8,404	9,479	10,352	9.2% ↗
Underhill	1,198	2,172	2799	2,980	3,016	1.2% ↗
Cambridge	1,528	2,019	2,667	3,186	3,659	14.8% ↗
Fairfax	1,366	1,805	2,486	3,765	4,285	13.8% ↗
Fletcher		626	941	1,179	1,277	8.3% ↗
Fairfield	1,285	1,493	1,680	1,800	1,891	5.1% ↗
Georgia				4,375	4,515	3.2% ↗

Source: U.S. Census Bureau & Town Plans, 2010

Figure 1



Source: U.S. Census Bureau & Town Plans, 2010

Table 2 Scenarios A and B depict future population estimates which are subject to external conditions such as the availability of employment in the region and the health of the overall economy in the region, state, and nation. Scenario A assumes a similar migration rate as seen from 1990 to 2000 when the national economy was generally healthy. Scenario B assumes a similar migration rate as seen from 2000 to 2010 when the national economy was in a recession.

**Table 2
Vermont 2010 Census Count Projections, 2020, 2030 – Scenario A**

	2010 Census	2020	% changes from 2010	2030	% change from 2010
Towns in Chittenden County					
Westford	2,029	2,086	2.8%	2,110	4% ↗
Colchester	17,067	17,621	3.2%	17,901	4.9% ↗
Essex	19,587	20,556	4.9%	21,138	7.9% ↗
Jericho	5,009	5,173	3.3%	5,254	4.9% ↗
Milton	10,352	11,067	6.9%	11,531	11.4% ↗
Underhill	3,016	3,059	1.4%	3,076	2% ↗

Towns in Close Proximity & Other Counties					
Cambridge	3,659	4,396	20.1%	5,074	38.7% ↗
Fairfax	4,285	5,232	22.1%	6,054	41.3% ↗
Fairfield	1,891	1,993	5.4%	2,090	10.5% ↗
Fletcher	1,277	1,424	11.5%	1,548	21.2% ↗
Georgia	4,515	4,822	6.8%	5,095	12.8% ↗

Source: Vermont Agency of Commerce and Community Development, 2013

Vermont 2010 Census Count Projections, 2020, 2030 – Scenario B

	2010 Census	2020	% changes from 2010	2030	% change from 2010
Towns in Chittenden County					
Westford	2,029	2,037	0.4%	2,001	-1.4% ↘
Colchester	17,067	17,206	0.8%	16,981	-0.5% ↘
Essex	19,587	20,074	2.5%	20,057	2.4% ↗
Jericho	5,009	5,051	0.8%	4,984	-0.5% ↘
Milton	10,352	10,808	4.4%	10,945	5.7% ↗
Underhill	3,016	2,987	-1.0%	2,917	-3.3% ↘

Towns in Close Proximity & Other Counties					
Cambridge	3,659	3,945	7.8%	4,119	12.6% ↗
Fairfax	4,285	4,981	16.2%	5,535	29.2% ↗
Fairfield	1,891	1,894	0.2%	1,904	0.7% ↗
Fletcher	1,277	1,354	6.0%	1,412	10.6% ↗
Georgia	4,515	4,583	1.5%	4,643	2.8% ↗

Source: Vermont Agency of Commerce and Community Development, 2013

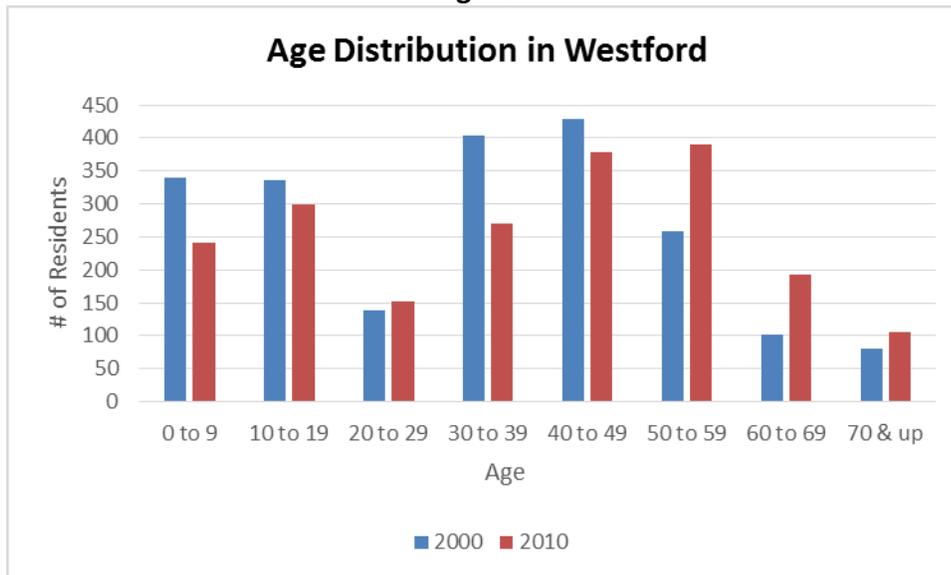
The age distribution of the population is shown below.

Table 3
Age Distribution in Westford

Age Range	# of People	% of Population
0 to 9	242	11.9
10 to 19	300	14.7
20 to 29	152	7.4
30 to 39	270	13.3
40 to 49	378	18.7
50 to 59	390	19.2
60 to 69	192	9.5
70 & up	105	5.1

Source: US Census, 2010

Figure 2



Source: US Census, 2000 & 2010

The 2010 U.S. Census Bureau report on population growth in Westford shows that the 0 to 19 year old population decreased and the 50 year old and over population increased from 2000 to 2010. It is expected that the population of individuals 19 or younger will stabilize over the course of the next 15 years and the elder population will increase dramatically. Future demographics will play an important role in determining which projects and services the Town plans for and implements.

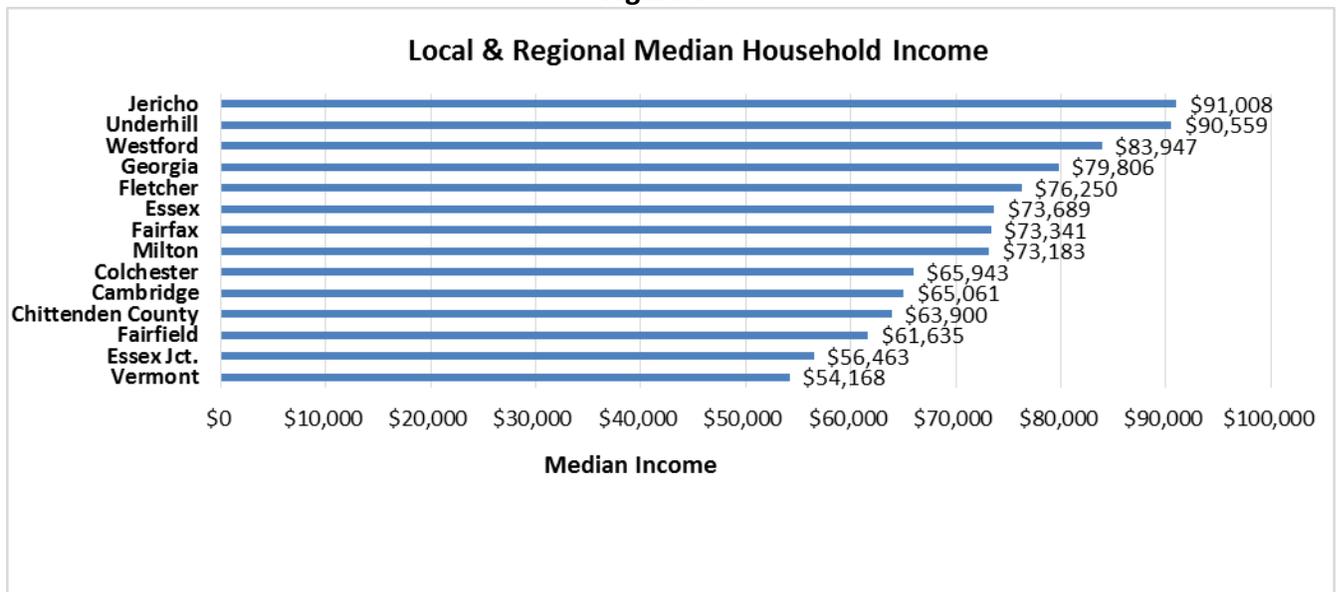
Household income is also reported in the 2012 American Community Survey. The following table and figure illustrate median income and income distribution for Westford and the surrounding area.

Table 4
Median Household Income

Vermont	\$54,168
Essex Jct.	\$56,463
Fairfield	\$61,635
Chittenden County	\$63,900
Cambridge	\$65,061
Colchester	\$65,943
Milton	\$73,183
Fairfax	\$73,341
Essex	\$73,689
Fletcher	\$76,250
Georgia	\$79,806
Westford	\$83,947
Underhill	\$90,559
Jericho	\$91,008

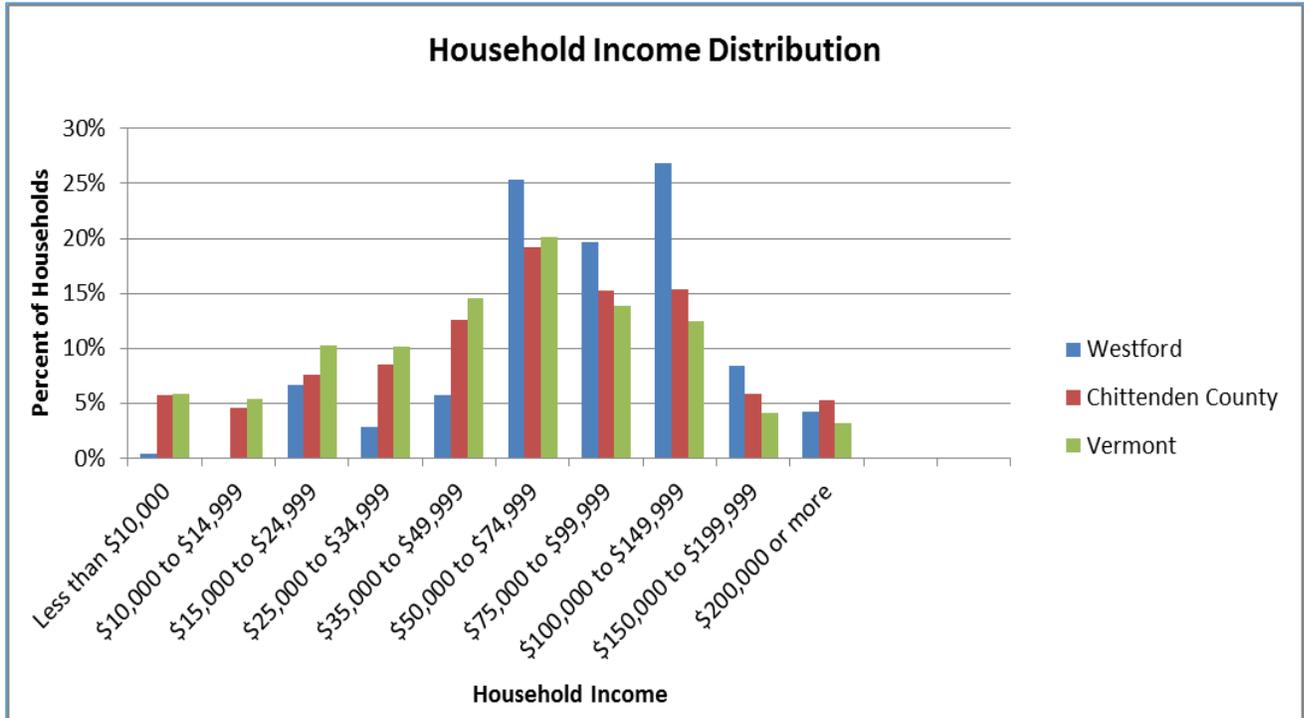
Source: American Community Survey, 2012

Figure 3



Source: American Community Survey, 2012

Figure 4



Source: American Community Survey, 2012

According to the 2012 American Community Survey, approximately 1.7% of the total population of Westford lives below the poverty line. This percentage is well below that of Chittenden County and Vermont as a whole.

3.2.2 Housing

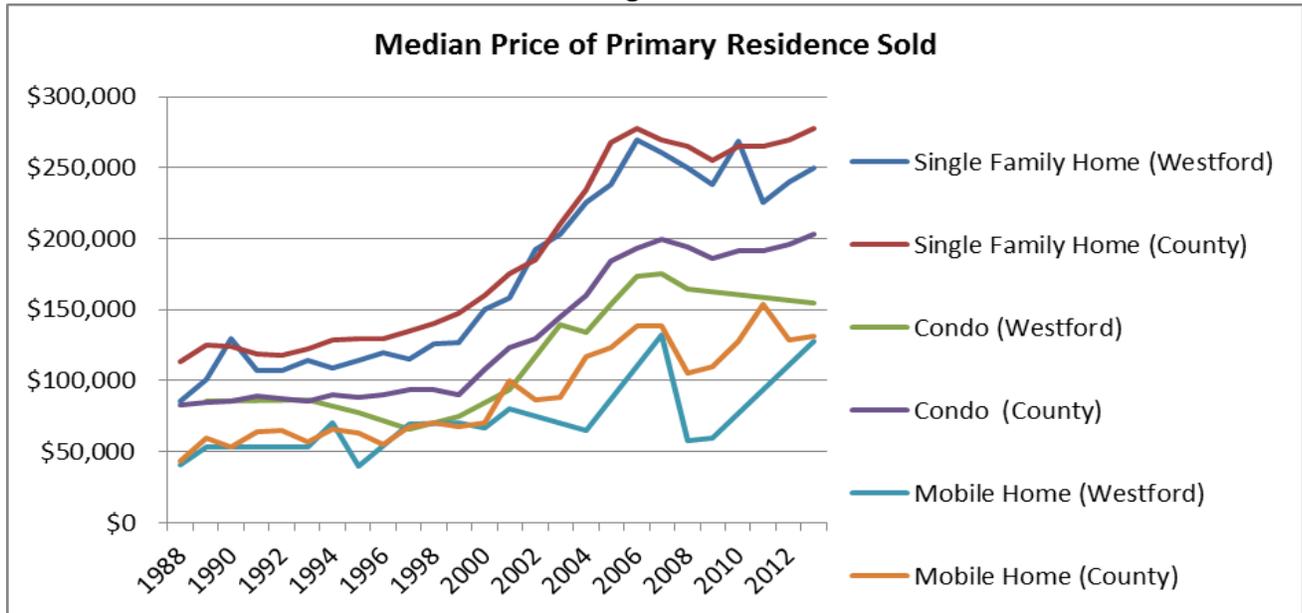
Housing is an essential component of any community. The type, cost, distribution, and location of housing impacts the social make-up and physical appearance of a community. Housing provides many benefits to a community, such as providing shelter to its residents, creating a customer base for local businesses, and serving as the focal point for family and community life. On the other hand, housing also places demands on public services and if built or placed inappropriately, can negatively impact natural resources. Planning for housing requires the consideration of many factors, including the type, cost, and location of new development.

Westford's Existing Housing Stock

Westford's existing housing stock consists primarily of detached, owner occupied units. According to the 2012 American Community Survey, there are a total of 796 housing units in Westford, 778 of which are occupied. Of the 778 occupied housing units, 738 (95.1%) are owner occupied and 40 (4.9%) units are occupied by renters. Similarly, 747 (93.8%) of existing housing units are detached single family homes or mobile homes, while only 49 (6.2%) are in structures with multiple dwellings. Housing costs in Westford climbed rapidly since the late 1990's. However, the median price has actually dropped slightly from a high of \$270,000 in 2006 to 247,000 in 2013, though it still represents a significant increase in the cost of housing since 1998, when the median sales price was \$125,000.

The median sale price for a home varies widely depending on the type of housing. For example, in 2013, the median sale price for a single family home in Westford, excluding condominiums, was \$249,500 (\$277,500 for a single family home in the county), the median sale price for a condominium was \$155,000 (\$203,000 for a condominium in the county) and the median sale price for a mobile home with land is \$127,500 (\$131,300 for a mobile home in the county).

Figure 5



Source: VT Housing Data Website (www.housingdata.org), 2013

Housing Affordability

Housing is considered affordable to a given household when no more than 30% of the household's annual income is spent on housing expenses. Housing costs for renters include rent and utilities. Housing costs for home owners include mortgage payments, property taxes, insurance, and association fees (if applicable.) Based on this information, a household would need an income of \$71,977 to afford a median priced single family home (\$80,054 for a median priced single family home in the county), \$45,128 to afford a median priced condo (\$58,765 median priced condo in county), and \$36,976 for a median priced mobile home (\$38,286 for median priced mobile home in county). Source: VT Housing Data - Home Mortgage Calculator

In Chittenden County, the 2013 median household income was \$63,989. "Affordable housing" refers to housing that is affordable to a household earning 80% of median income or less. 80% of median household income is \$51,191. The "affordable housing" prices for these demographics are \$176,000. Source: VT Housing Data - Home Mortgage Calculator

Given the figures above, a household earning the median household income for Chittenden County could not afford to purchase a single family home in Westford, but could afford a condominium or mobile home.

Housing Type

In addition to housing affordability, housing type is an important consideration. For example, as Westford's population continues to age, some residents may find that they can no longer maintain large amounts of land. Others, such as unmarried individuals and young families wishing to reside in Westford, may not need or want a large single family home at this stage in their lives. A variety of housing types, including single family homes, condominiums, multifamily housing, and elderly housing provide an opportunity for a wider range of people to live within a community, regardless of income. Yet, almost all housing currently constructed in Westford consists of single family homes. This is in part due to market demand and soil limitations, despite the fact that different types of housing have varying implications to/on municipal services and natural resources. The Planning Commission is actively working to address this situation to allow a variety of housing options.

Based on State Statute, homeowners are allowed to construct accessory dwellings (frequently referred to as "in-law apartments") on properties with single family homes. Accessory dwellings are an innovative way to grant homeowners space within their home or on their premises to house parents or adult children and/or to supplement their income with rental income. Additionally accessory apartments represent an opportunity to create additional housing in Westford without developing valuable natural areas. Accessory dwellings are a key component to allowing older resident to "age-in-place". The Planning Commission is exploring how to expand options and opportunities for accessory dwellings.

Of course, some older residents may find that they wish to remain in town, but do not have the space, desire, or resources to create an accessory dwelling. There is currently no designated elderly housing in Westford. Elderly housing is defined as housing that is specifically designed and designate for residents 55 years of age or older. Under Westford's current Zoning Regulations, elderly housing located within the Town Common, Town Village, and Town Center Districts is governed by lot coverage rather than minimum lot size. This allows multiple small units to be located within a single structure or series of structures than would be allowed based on a traditional unit to lot size basis. The Planning Commission is considering expanding this to other zoning districts in order to incentivize elderly housing.

Strategies to Encourage Housing Options

The availability of affordable and reasonably priced housing is a problem not confined to Westford; all communities in Chittenden County are grappling with this issue. While the issue is regional in scope, there are several steps Westford can take to expand housing options within the Town.

The Town amended the Subdivision Regulations to encourage the creation of affordable units by granting affordable housing density bonuses as an incentive. The Town should actively encourage developers to take advantage of this bonus now that it is in place. In doing so, the Town could facilitate partnerships between interested land owners and local affordable housing providers such as Green Mountain Habitat for Humanity and the Champlain Housing Trust. The Town realizes the impact of transportation costs to finding affordable housing. Affordable housing should take into consideration the cost of commuting to employment and services. The availability of public

transportation is key to establishing and maintaining affordable housing in Westford. Please see Chapter 6 for further discussion.

Affordable housing may also be encouraged through the Town's fee structure by reducing or waiving fees for units of affordable housing. Another regulatory change to consider is increasing density for certain housing types (such as affordable housing or multifamily housing) in specific areas of Town (for example, Town Center Area, Plains Road and Rt. 128/Rt. 15).

Furthermore, the goal of allowing commercial space to be mixed with and sustained by small residential dwellings in the Town Center Area supports the goal of encouraging affordable housing. It is also worth considering that in general, smaller dwellings require less energy for heating, air conditioning, and lighting than larger dwellings, making them more affordable. Multi-family attached dwellings, inherently more energy efficient and affordable than most single family detached dwellings because of denser housing and shared common areas, can further achieve higher energy efficiency.

The Town could also facilitate the development of affordable housing by inventorying Town owned properties to determine if any would be appropriate locations for affordable housing. Town owned properties or portions thereof that do not have significant natural resources could be sold or donated to local affordable housing developers for the purpose of creating additional housing. Proceeds from any sales could be invested to create additional housing, purchase more valuable resource land, improve public infrastructure, or further other objectives of this plan.

The State "Vermont Neighborhoods" program is another option to increase the supply of affordable housing. The program enables communities to create "Neighborhood Planning Areas" adjacent to designated Village Centers and Downtowns. The program provides relief from Act 250 and certain state taxes to projects locate within the Neighborhood Planning Area. The program also provides a small amount of financial incentives for communities that host new affordable housing, which could be used to improve wastewater infrastructure in the Town Center Area. The Planning Commission and Selectboard should investigate designating the full Town Common Zoning District as a Neighborhood Planning Area.

3.2.3 Existing Land Use

Westford is predominantly a rural bedroom community. Most of the adult residents in the workforce commute to work out of town. Because the lack of sewer or water service in the Town Center Area hinders growth in the primary growth area, the overall density of the Town is low. There are a total of 25,038 acres of land in Westford and a population of approximately 2,029. This translates to a density of approximately 13 acres per person.

Westford's rural character has been formed primarily as a result of traditional Vermont development patterns, which included a significant agricultural sector and the development of the Town Center Area. This has resulted in low density residential and agricultural uses and an abundance of open land dispersed along existing roadways. Based on the results of the both the 2003 and 2009 community surveys, the preservation of Westford's rural character is extremely important to residents, particularly open space, farmland, and forests.

Specialty agricultural businesses and hobby farms are prevalent throughout Town. The Town plans to foster the development of farming operations and encourage the conservation of land as a means of becoming a more sustainable community. However, a growth in small farming operations is not as likely to result in the preservation of the large amount of land, traditionally associated with larger working farms. Unfortunately, the trend is towards a gradual reduction in the number of large working farms in both the region and Westford. Because of this trend, Westford has changed from an agricultural community to a rural bedroom community, which can create more of a challenge in meeting the Town’s goal of preserving the Town’s rural character.

There are three sizeable businesses in Westford (one of those being a medium sized dairy farm) and numerous small, home-based enterprises. It is likely that more of these small businesses will continue to develop in Westford. (See Chapter 5 for additional Economic Development discussion.)

Every few years or as necessary, the Town updates its parcel data with the thought that the data will help Town officials better understand the total number, distribution, and arrangement of parcels. In 2008, there were a total of 1066 parcels in Westford, up from 924 in 1992 and 747 in 1985. It is apparent from the data below shown in Table 5 that the potential exists for significant additional subdivision activity in Westford. The following table illustrates parcel breakdown by size, number and total area in Westford.

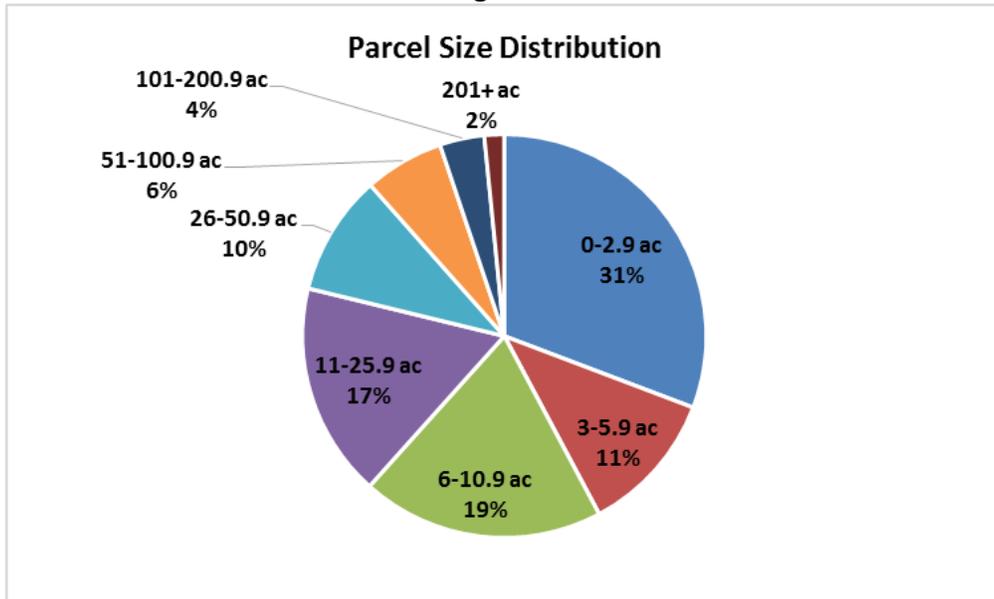
**Table 5
Parcel Quantity & Size Distribution**

Parcel Size Acres	# of Parcels	Total Area	% of Area
0-2.9	328	441	1.8
3-5.9	122	506	2.0
6-10.9	207	1949	7.8
11-25.9	183	2981	11.9
26-50.9	103	3763	15.0
51-100.9	68	4958	19.8
101-200.9	38	5200	20.8
201+	17	5243	20.9
TOTAL	1066	25041	

*Includes right of ways

Source: CCRPC GIS and Westford Digital Parcel Maps, 2008

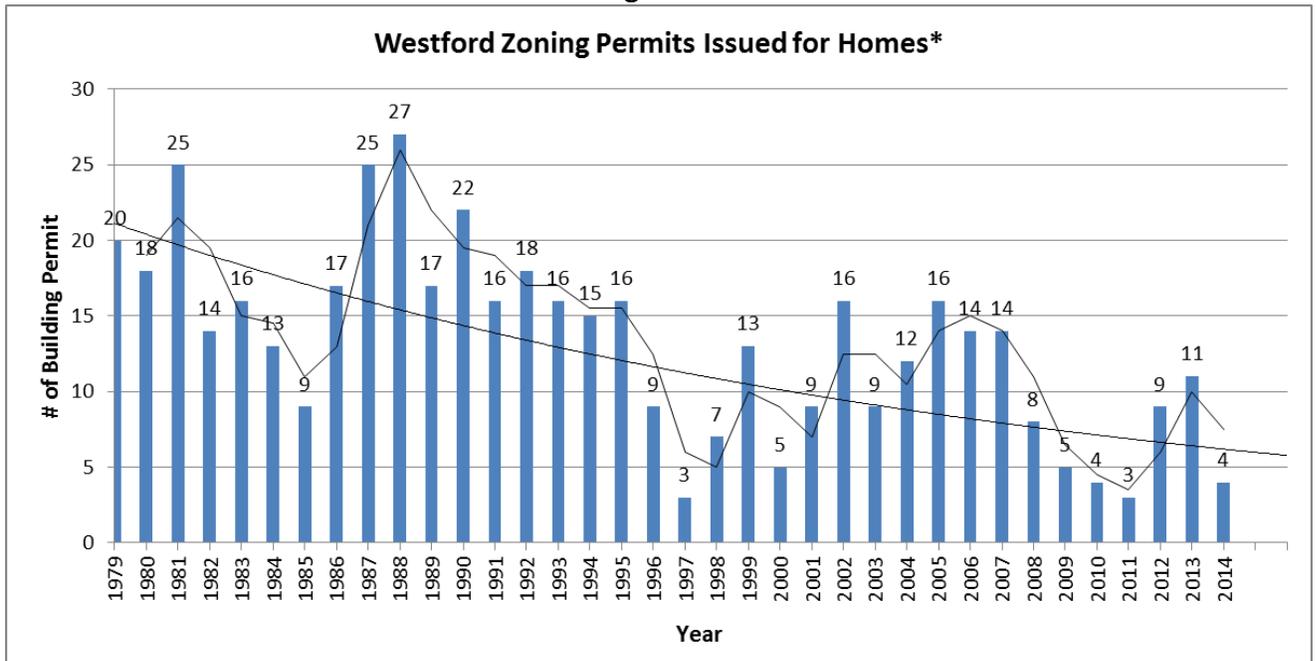
Figure 6



Source: CCRPC GIS and Westford Digital Parcel Maps, 2008

The Town saw a rise in new home construction during the 1980's and early 1990's. This corresponds with the growth of IBM Inc. located in Essex. Furthermore, a small, yet substantial, increase in new home construction occurred in the early 2000's prior to the Great Recession. Figure 3 shows the number of zoning permits issued for new homes from 1979-2013.

Figure 7



* Generally single family dwellings; however, the data may include some replacements

Source: Town Reports

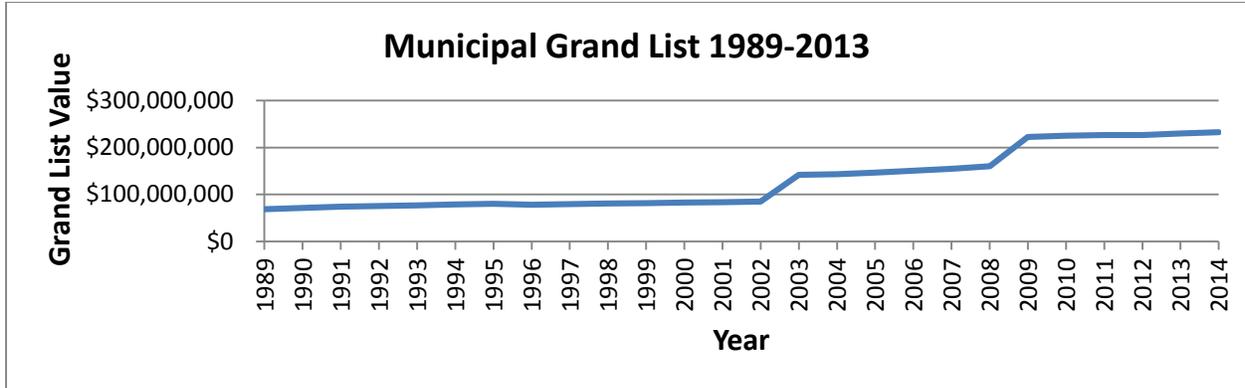
The Town's grand list represents the total listed value of real estate and personal property, minus public utilities/infrastructure, farm stabilization, current use and veteran benefits. Westford's grand list increased 180% from 2000 to 2014 (See Table 6). The large increase since 2000 is due to a town-wide reappraisal conducted in 2003 and another in 2009, which brought property valuation much closer to fair market value. Prior to 2003 the last reappraisal was conducted in 1989.

**Table 6
Westford Grand List 1989-2013**

Year	Municipal Grand List Value
1989	\$68,586,539
1990	\$71,423,084
1991	\$74,052,223
1992	\$75,521,501
1993	\$76,951,261
1994	\$78,833,815
1995	\$80,245,235
1996	\$78,496,314
1997	\$79,232,580
1998	\$80,944,708
1999	\$81,421,098
2000	\$83,111,061
2001	\$83,656,289
2002	\$85,115,268
2003*	\$141,665,226
2004	\$143,494,902
2005	\$146,439,957
2006	\$150,610,182
2007	\$155,075,583
2008	\$159,881,632
2009*	\$222,749,050
2010	\$225,347,650
2011	\$226,307,550
2012	\$226,769,700
2013	\$229,876,000
2014	\$232,693,100

Source: Town Reports

Figure 8



* Large increase in 2003 & 2009 due to town-wide reappraisal

Source: Town Reports

3.3 Population, Housing & Existing Land Use Goals & Objectives

1. **Growth & Services** - Ensure a pattern of residential growth compatible with Westford's rural character and a rate of growth that does not outstrip the Town's ability to provide necessary services.
2. **Growth & Natural Resource Protection** - Facilitate the dual objectives of allowing residential and nonresidential development while conserving working lands, open spaces, and significant natural resources.
3. **Affordable Housing** - Encourage the provision of housing which is affordable to Westford's residents who wish to remain in Westford and to those people who will move to Westford in the future.

4 FACILITIES, UTILITIES & SERVICES

4.1 Policy

It is the policy of the Town of Westford, in the interest of stabilizing the tax rate and ensuring the most efficient use of tax revenue and staff time and energy, to plan for community facilities, services and capital expenses. The Town will strive to provide adequate services to all Town residents and to direct future growth to ensure that services to existing residents are not compromised or their quality reduced. New growth should pay its proportionate share of the cost of providing Town services and facilities.

4.2 Inventory & Discussion

4.2.1 Cemeteries

There are 7 cemeteries in Westford: Cook Yard, Richardson, Osgood Hill, Plains, Cloverdale, Brookside and Pleasant View. See Town Plan Map 7 for locations. Two of these, Brookside and Pleasant View, currently have their own associations to manage their care and upkeep. At some point, these cemeteries will likely be Town owned and managed. The other five cemeteries are under the management of the Westford Cemetery Commissioners. Under Vermont State Law, towns are responsible for cemetery upkeep.

Cook Yard, near the intersection of Cambridge Road and Covey Road, is a very small lot overgrown with brush and trees and has only three markers visible. A future project of the Historical Society and Cemetery Commission is to clear the brush and overgrowth. No additional use is contemplated.

Richardson Cemetery, located on Covey Road near the intersection of Birch Hill (Old Number 11), contains 20 graves. Burials date from 1805 to 1881. Thanks to the Friends of Richardson Cemetery, the cemetery has been restored and continues to be maintained. All plots have been sold and no additional use is foreseen.

Osgood Hill Cemetery has 195 graves and very limited space for future burials, although the cemetery is still in use and is in good physical condition.

Cloverdale Cemetery is located in the eastern part of Westford between Underhill and Cambridge on Route 15. Approximately 220 graves dating from 1805 to the present can still be found. There is limited space for future burials; however, there is no parking available, making use of this cemetery dangerous.

Plains Cemetery is located on Plains Road and contains 250 graves, from 1815 to the present. There is a small area remaining for future burials.

Brookside Cemetery, located on Maple Tree Lane, is one of the oldest and largest cemeteries in Westford, with burials dating from 1800 to the present. There are approximately 675 graves and a large area exists for future burials.

Pleasant View Cemetery is located on Route 128, north of Westford Village. This is also a spacious cemetery with about 460 graves and approximately 200 plots available for future burials.

4.2.2 Fire Department

The Westford Volunteer Fire Department was founded in 1982 and is an all-volunteer force with 19 members and is housed in a portion of the Town Garage. The department maintains a fleet of vehicles and a variety of highly specialized firefighting equipment. The department maintains formal arrangements with other local fire departments to provide mutual aid as necessary. The Westford Fire Department is a duly constituted non-profit corporation that provides services to the Town on an annual fee-for-service basis, which means the Town funds the Westford Fire Department in return for services. The fire department is supported by the Town's budget and by private fundraisers and donations.

Increased growth in Westford has necessitated fire department coordination with the Planning Commission, Development Review Board and Administrative Officer to ensure adequate water supplies and road widths in new developments to allow passage of heavy equipment, and adequate access to dwellings and structures for the easy provision of emergency services.

4.2.3 Library

The Westford Public Library was established in 1895 and currently occupies the original Town Hall building built in 1844. It has been at its present location since 1974. The building is eligible for the listing on the National Register of Historic Places. Serious renovations started in 2002 with the replacement of the slate roof, furnace, carpeting, electrical wiring, light fixtures, shelving, and furniture. In 2008, the building was insulated, re-sided, and painted. A parking lot was constructed on the north side of the building to provide safe and convenient parking for its patrons in 2013. The renovations are complete and any further work will be done as the need arises and monies become available.

The Library provides access to materials, technology (including free internet access), and programs to meet the informational, educational, and recreational needs of the Westford community. It serves as a common area for the community to meet and discuss issues, provides information and resources for personal growth opportunities, and promotes cultural awareness and understanding. The library has strong and successful programming for children and their families. Through the well-attended summer reading program, the library is able to encourage children to read and explore new ideas during the summer. The Library also supports child care providers and grandparents with reading and learning materials to encourage life-long readers from an early age.

The Librarian and the Board of Trustees continue to work on providing the evolving needs of the community. The current long-range plan will guide the operations through 2017. The Library has completely automated its collection and continues to develop the collection and programs to provide for the general information and life-long learning of the community. The Librarian and Trustees' focus is on increasing the number of participants in programs and events, increasing the usage of social media for better communication and fostering collaboration between the library and other groups in town, especially the school. Our goal is to have residents of all ages have convenient, easy, and varied ways to access library services and resources.

4.2.4 Post Office

The Westford Post Office was moved from the Town Common to a location north on Route 128 in 1988. The location of the Post Office outside of the Town Center Area has detracted from the sense of community that was once felt when the Post Office was located around the Common and residents could walk from there to the Town Offices or Westford Public Library. People currently have to walk to the Post Office along the narrow and dangerous section of Route 128 connecting it and the Common. The Town would be better served if it were relocated back to the Common and expanded its hours of operation. In the meantime, better pedestrian links from the Town Center Area are needed.

4.2.5 Town Common

The Town Common has long been a focal point for the Westford community since the early 1800's. Early in its history, roads and paths connecting a variety of businesses and residences crisscrossed the Common. For some time it served the community as a large, contiguous green space. Unfortunately, poor drainage hampered how it could be used and made tree planting difficult. All of this changed in the mid 1990's thanks to generous donations by Henrik Kruse. Thanks to Mr. Kruse's donations and efforts, extensive drainage was installed in 1994, and a permanent post and beam pavilion was constructed in the center of the Common in 1995. These continued efforts resulted in a completely revitalized Common with tree and shrub plantings, benches, a swing set, and a level area used for an outdoor skating rink in the winter.

The Common is the hub of the Town Center Area and Town in general. It is surrounded by multiple residential and municipal uses that include: Town Office, Westford Public Library, Brick Meeting House and the United Church of Westford. It is used for a wide variety of community events and activities such as: outdoor skating, seasonal farmer's markets, and annual July 4th celebration, summer concerts and ice cream socials, recreation department activities, outdoor summer library programs, and general recreation space for all ages. Public amenities and facilities should be located in the Town Common District.

4.2.6 Recreation

Recreational opportunities abound in Westford, especially outdoor activities that take advantage of Westford's abundant natural resources. Snowmobiling, hiking, cross-country skiing, horseback riding, hunting, fishing, mountain biking, and road walking/running are popular activities in town. The network of Town roads (particularly dirt roads) and trails contribute greatly to these recreational activities, and as such serve the community for far more than just transportation. The Westford Elementary School is also the location of an extensive trail network currently maintained by the Conservation Commission in cooperation with school staff. Organized recreational activities are also available, and help contribute to Westford's positive sense of community. The Selectboard created a volunteer Recreation Committee in 1997, and appointed a part-time Recreation Coordinator to help the Committee facilitate organized recreational activities and better utilize both Town and School facilities. Together, the Recreation Committee and Coordinator help provide numerous activities for children and adults alike in every season. Adult recreation programs and activities include: yoga, volleyball, the annual broomball tournament and co-sponsorship with the Town Library of the summer concert series on the Town Common. Regular sports programs for children regularly participate in fall soccer, winter basketball, after-school cross-country skiing,

spring lacrosse and t-ball, summer soccer, and lacrosse. Additional enrichment programs for children change over time and frequently include arts programs, tennis, gymnastics, and summer camps. School-sponsored sports programs generally are focused on children in the 7th grade or higher, which makes the Town-sponsored recreation programs all the more important for families of younger children. These organized recreation programs offer children and adults a way to be active in their own lives and in the community, and help build lasting connections with other residents throughout Westford.

Most organized recreational activities happen at either the Westford Elementary School or on/around the Town Common. The Town Common underwent extensive work to drain and landscape the land to provide a usable area for a variety of recreation uses for Westford residents, including the summer concert series, the winter broomball tournament mentioned above, and many other events. Indoor events around the Town Common are typically held in the Brick Meeting House (a community space owned by the United Church of Westford and leased to the Brick Meeting House Society for community use) thanks to cooperation between the Recreation Committee and the Brick Meeting House Society. The Westford Elementary School is the location of the Town's recreational fields. There are two soccer/lacrosse fields, a baseball field, a softball field, and a tennis court with basketball hoops. The school property also includes 2 playground areas with swings and structures suitable children of all ages. The aforementioned trail system located at the school is well-marked and is used by the community throughout the year. The Recreation Committee supported the purchase of grooming equipment, and thanks to volunteer efforts, the school trails are groomed for cross-country skiing in the winter months.

Over the last two years, the taxpayers have approved a modest annual amount of \$5000 to the Recreation Department. This money has been spent on upgrading much needed recreation equipment, including the snowmobile used to groom the school cross country ski trails, replacing the Nordic equipment, and upgrading the skating rink. Future expenses that the money will be used for are new jerseys for soccer, basketball and lacrosse, along with new lacrosse goals and the funding of the part-time recreation coordinator salary, which we are hoping to increase from 10 hours a week to 15 hours a week. Many new programs have been added over the last few years, including free activities to the youth of the town, and events like the 5K Pumpkin Run and Holiday Bazaar and Children's Craft Center, which is increasing the amount of time necessary to run the department. We also incurred many years of poor bookkeeping, resulting in very little money being carried over, so the minimal funding from the Town has allowed our programs to continue to run and develop over the years.

Going forward for the next 5 years, the Recreation Committee would like to explore the development of the town owned land on Westford Milton Road, which was given to the municipality with specific deeded rights for it to be used for recreational purposes only. This is a large chunk of land that is currently not in use and the Committee would like to see what potential it has for development. Ideas include new trails, athletic fields, campground, obstacle course, leasing for sugaring (income producing), and community center. The Committee is interested in seeing the potential that this property has, along with exploring public and private grants, and finding out what our community needs and interests are. The goal is to continue to provide local

programming within Westford, meeting the needs of Westford’s youth and adults, while minimizing the costs on taxpayers and residents.

4.2.7 Emergency Response Services

Call 911 for EMS, fire and police assistance.

Westford has no local EMS service. In order to provide the residents with the fastest possible EMS response, the Town of Westford has contracted with two primary EMS service providers: Fairfax Rescue and Essex Rescue. Fairfax Rescue is the primary responding ambulance service in the northern half of Westford and Essex Rescue provides primary response in the southern half of town. The town is divided as follows for EMS E911 purposes:

Town of Westford (North End - Including Route 15 Corridor)

From the intersection of Old Stage Rd and Rogers Rd North (And Associated Roads), Intersection of Woods Hollow Rd & Orchard Lane North (And Associated Roads), Intersection of Brookside Rd & Chase Ln North (And Associated Roads), Intersection of Route 128 & Maple Ridge Ln North (And Associated Roads), Intersection of Osgood Hill Rd & Stony Ridge North (And Associated Roads), and Route 15 Corridor of Westford shall be the following response:

Primary Ambulance:
Fairfax

Backup Ambulance:
Essex

Town of Westford (South End)

From the intersection of Old Stage Rd and Rogers Rd South (And Associated Roads), Intersection of Woods Hollow Rd & Orchard Lane South (And Associated Roads), Intersection of Brookside Rd & Chase Ln South (And Associated Roads), Intersection of Route 128 & Maple Ridge Ln South (And Associated Roads), Intersection of Osgood Hill Rd & Stony Ridge South (And Associated Roads) shall be the following response:

Primary Ambulance:
Essex

Backup Ambulance:
Fairfax

Essex Rescue’s medical direction is affiliated with the University of Vermont Medical Center in Burlington. Fairfax Rescue’s medical direction is affiliated with the Northwestern Medical Center in St. Albans.

However, in 2010 the Westford Selectboard designated the University of Vermont Medical Center (then Fletcher Allen Health Care) as the preferred facility for all Westford residents in instances where persons requiring transport either fail to request a specific facility or are unable able to do so. This designation was made after a survey of Westford residents’ served by Fairfax Rescue was conducted and the responses received overwhelmingly requested that Fletcher Allen Health Care to be the preferred facility for the Town in such cases.

There are two fire departments providing primary emergency response through Westford’s E911 system. The Westford Volunteer Fire Department (WVFD) is the primary service provider for

fire/rescue response throughout Westford, with the exception of the Route 15 corridor section of town and associated side roads. The Underhill Jericho Fire Department (UJFD) is the primary service provider for fire/rescue response in Westford's Route 15 corridor area. Two primary fire/rescue service providers have been established in order to deliver the fastest possible emergency service response time. The WVFD has to travel a long distance along Route 104 through Fairfax and Cambridge to reach the Route 15 corridor of town. The UJFD station is logistically much closer to this area of town and can therefore respond to 911 calls much more quickly there. It should also be noted that the Essex Fire Department is the secondary service provider in Westford if the Westford Fire Department volunteers are not available during business hours.

The Town of Westford contracts with two service providers for police services: the Vermont State Police (VSP) and the Chittenden County Sherriff. The Vermont State Police provide primary E911 law enforcement within the Town of Westford. They serve Westford as part of a tri-town "outpost" which also includes Jericho and Underhill. The Town contracts with both the Vermont State Police and Chittenden County Sherriff Department for additional speed and traffic enforcement.

In 2008, the voters granted the Selectboard the ability to appoint, rather than elect, a Town Constable, whose duties would be restricted to limited forms of local law enforcement. This position is currently vacant and not being advertised due to the law enforcement training required by state statute to carry out duties.

4.2.8 Emergency Planning & Preparedness

The Town has an appointed Emergency Management Director. The Town has adopted a resolution designating the National Incident Management System (NIMS) as the basis for incident management. NIMS compliance standardizes the Town's incident management with state and national procedures; it also makes the Town eligible for certain state and federal disaster mitigation grant funds. The Town also has an All Hazards Mitigation Plan developed with cooperation with the Chittenden County Regional Planning Commission. The All Hazard Mitigation Plan assesses risk and outlines emergency preparedness, response, resiliency and recovery areas the Town should focus on and/or improve upon in the coming years. Lastly, the Town has an Emergency Operations Plan, which lists emergency contacts and is a NIMS requirement.

The Westford Elementary School has been designated as the Town's emergency shelter. The school has an identified capacity of 400 persons, has an emergency generator to provide power to support emergency shelter services, and is an American Red Cross certified shelter. In the event of an emergency requiring sheltering of residents, the Town would request that the American Red Cross open and staff the shelter.

The Town shall develop a detailed set of procedures/chain of command to follow in the event of disaster as well as provide emergency preparedness information and instructions to the public.

4.2.9 Road Department

Westford public roads are maintained by a road crew consisting of 3 full-time employees and supervised by the Selectboard. They are responsible for maintaining all town roads using equipment located at the Town Garage on Cambridge Road.

The Selectboard appoints a Road Committee whose duty is to develop, and amend as necessary, the 5-Year Road Report. The Road Report guides future maintenance, upgrades and replacement of priority Town roads, bridges and culverts.

4.2.10 Schools

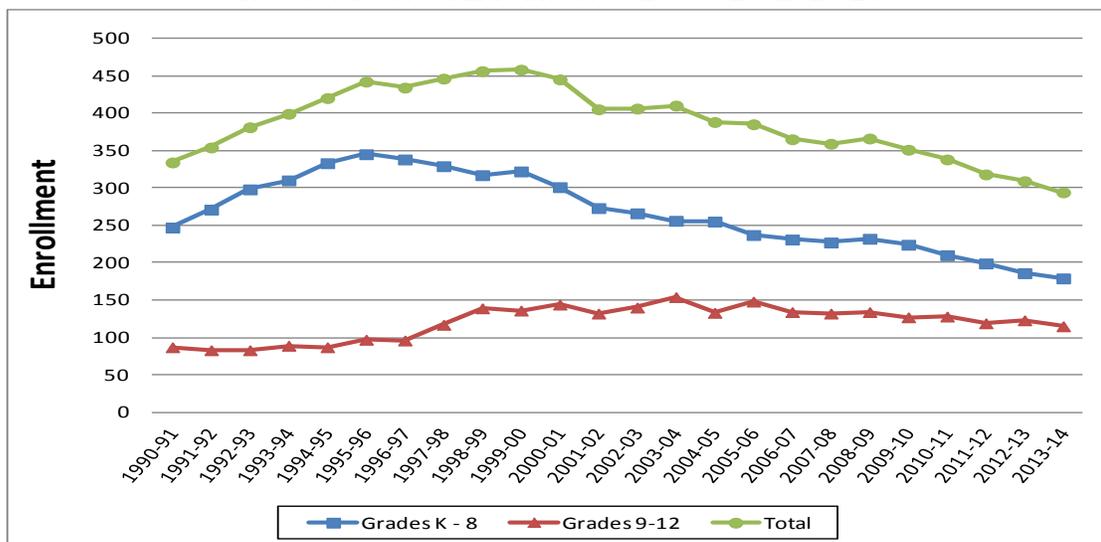
An elected board of 5 Westford citizens governs the Westford school system. It is part of the Chittenden Central Supervisory Union, which is headquartered in Essex Junction. A thorough report of the school department and the District's activities and finances is produced each year and presented to the Town School District prior to and during the annual Town School District meeting.

The Westford Elementary School provides education to students from pre-school through the eighth grade and is staffed by a principal, 14 full-time teachers, 10 part-time teachers, and 13 staff personnel, a combination of full and part-time staff, back them

The Elementary School is housed within a single building located on 78 acres of land on Brookside Road. Refer to Town Plan Map 7. The building was originally built in 1968 and enlarged in 1973, 1986 and 1993. Both students and non-students heavily utilize the athletic facilities that surround the school. Facilities are available for tennis, basketball, football/soccer and baseball. The school grounds house well maintained playgrounds. The equipment is used by pre-school and school aged children, both during and outside of regular school hours. Pre-school children also use the Town Common during school hours. Furthermore, the school has an extensive trail network available to the public for walking, running and cross country skiing.

Westford has no high school. By state law, the Town pays tuition for students to attend the public high school of their choice. Figure 5 shows enrollment trends from 1990 to 2014.

Figure 9
Westford School Enrollment – 1990-91 – 2013-14



Source: Town Reports

The number of Vermont elementary and secondary students has decreased each year since 2000. During this same period of time, the number of Westford students dropped from 458 to 294. However, the National Center for Education Statistics is projecting a change in the trend with minor increases in enrollment for Vermont beginning sometime between 2015 and 2020. Enrollment projections for Westford show stabilization occurring in 2019-20 and carrying through 2030.

The Town makes an extraordinary effort each year to meet the needs of Westford children by funding the town's education costs. For school year 2014-15, the town approved a school budget of \$5,203,985 for 318.52 equalized pupils. Subtracting non-property tax revenues of \$635,752, the education spending per equalized pupil was \$14,342. Westford's education spending per pupil was 2.2% above the average for the State of Vermont that year.

The school system also owns 20 acres of undeveloped land near the southwest corner of Old Stage Road and the Milton-Westford Road.

4.2.11 Child Care

The Town of Westford considers all of its citizens to be equally important components of the overall community and its future. This includes our children, working individuals, homemakers, retirees, and the elderly. In the Five Year American Community Survey Estimate for 2008-2012 based on the Census Bureau's Population Estimate Program, Westford had 95 children under the age of 6, approximately 72% (68) of who had all parents in the labor force. Similarly, Westford had 375 children between the ages of 6-17, approximately 67% (250) of who had all parents in the labor force.

As of October 2014, Westford has one home-based childcare program with a capacity for 4 school aged children. The Westford Elementary School provides morning and afternoon sessions of pre-school Tuesdays through Fridays. In 2014 it provided services to 15 students. The Westford Recreation Department provides some after school programs for Pre-K through 4th grade students. The Westford Elementary School Athletic Department provides after school athletic programs for 5th – 8th grade students.

The Westford Public Library has numerous resources, activities and programs for Westford youths. The Library welcomes and provides a safe, healthy space for unattended children 9 years old and older. However, no public place, including the library, can guarantee the safety of an unattended child; it must be understood that the library does not act in *loco parentis* (in place of the parent) in these cases. The Library is on the Westford Elementary School's bus route. See the Westford Public Library's *Unattended Minor Policy* at <http://westfordpubliclibrary.wordpress.com/> or contact the Westford Public Library for more information.

Due to a decrease in the youth population in Westford, and Vermont as a whole, the number of children needing daycare will decrease. However, there is and will continue to be a strong need for quality care and early education. The Town has taken some steps to allow the provision of day care. The Westford Zoning Regulations currently allow for "nursery schools/day cares" in the Town Common District as a permitted use and a conditional use in all other districts. The Town should

move towards making this use permitted in all districts in an effort to remove barriers for a use that is greatly needed to serve the Westford population.

In 2014 the Vermont State Legislature passed Act 166 (Universal Pre-K) which requires towns to provide and/or pay for 10 hours of preschool to 3-4 year olds for 35 weeks per year. The hope is this program will provide higher quality childcare and pre-kindergarten foundations to ensure children are prepared to enter the public school system for kindergarten. The Town should study with the goal of implementing additional techniques to promote quality daycare, pre-school and afterschool programs. Refer to Town Plan Map 7.

4.2.12 Solid Waste Disposal

Westford is a member of the Chittenden Solid Waste District (CSWD). CSWD is the regional authority responsible for the oversight and regulation of solid waste generated by its members pursuant to the District's Charter, enacted by the Vermont legislature on March 3, 1987. Its authority and responsibilities are described in the District's current Solid Waste Management Plan. CSWD's solid waste management system is based on the following hierarchical priorities: 1) reduction of the toxicity of the waste stream, 2) reduction of the volume of the waste stream, 3) reuse, 4) recycling and composting, and 5) disposal. Membership in CSWD satisfies the municipal solid waste planning requirements of 24 V.S.A., 2202a.

Under contract with a private hauler to provide curb side pickup, Westford residents' trash is disposed of at an approved facility according to the ordinances and regulations of CSWD. Household trash is collected weekly, and recyclables are picked up bimonthly. Household hazardous waste can be delivered to a permanent hazardous waste facility in South Burlington or at the "Rover", a mobile collection facility, which sets up in each of the district's member municipalities at least once a year from April to October. Items such as non-alkaline batteries, cell phones, fluorescent light bulbs and tubes, motor oil and filters, small propane tanks, scrap metal, and TVs are accepted at most of the Drop-Off Centers (DOCs) located throughout the county.

4.2.13 Wastewater Disposal

In 2007 and 2008, the Town conducted a wastewater study in the Town Center Area. The first step of this study analyzed existing septic systems in the Town Center. This included a survey to area residents, research into existing permits, as well as GIS analysis of the area. The study found that many properties, particularly those directly around the Town Common, had significant limitations to new or expanded septic systems. A search of permit files found that, despite these limitations, some property owners had been able to legally construct septic systems. The study did not analyze whether new technologies such as pretreatment systems could be used in these areas, since such an analysis would require onsite investigation and was beyond the scope of the study. This is important because many of the properties directly around the common are limited by high water tables, poor soils and area restrictions, and in some cases, pretreatment technologies can address these issues. Even so, the study confirmed that there are significant constraints to expanding wastewater capacity, particularly on properties in the Common and Village Districts.

The study identified several areas that could support a community wastewater system serving the Town Center, or conversely, a large private development. Most of these areas were located on the

periphery of the Town Center. The study estimated that the costs of developing a community system on these sites would be prohibitive without extensive aid from an outside source.

The study also noted that there are several properties located closer to the Common that could potentially support small shared systems. If such small septic systems were built, these systems could serve public facilities, help existing residents replace failed systems, or allow a limited amount of new development.

One finding of the study that is especially important to planning purposes is that many commercial and institutional uses require significantly less septic capacity than a single family home. For example, an office or store with 9 employees requires one-third of the wastewater capacity required to serve a 3-bedroom single-family home. This finding supports the Town Plan's vision of a vibrant Town Center with a mix of homes, civic institutions, and small, community-based businesses.

In 2012, the Town conducted a wastewater capacity study of a newly-purchased, 1.7 acre parcel known as the Spiller property, located directly south-west of the Common. No suitable wastewater disposal soils were found on the property. However, the existing wastewater disposal system serving the existing dwelling on the parcel is a State-grandfathered, 3 bedroom system.

In 2014, the Town conducted a site specific community wastewater capacity study on the Brick Meeting House, Town Common and White Church properties. The study located an area of soils suitable for septic behind the White Church. The area was generally large enough to serve all municipal and community facilities around the Common in addition- to a few additional uses/structures. It is a priority of the Town to further explore the economic and regulatory feasibility of this site.

4.2.14 Town Government

The Town Offices are located in the Town Center Area, opposite the Common.

The Town is governed by a Selectboard (3 members), elected for 3-year terms. Other positions include Library Trustees (5), elected for 5 year terms; Town Clerk, Auditors (3), all elected for 3-year terms; and School Board Members (5), elected 2 and 3-year mixed terms. The Moderator is elected annually and Justices of the Peace (7) are elected for 2-year terms. Appointed positions include the following: Town Administrator, Assistant Town Clerk, Town Treasurer, Listers (3), Cemetery Commissioners (3), Planning Coordinator, Road Foreman, Road Crew (3), Dog Warden, Inspector of Wood and Lumber, Delinquent Tax Collector, Fence Viewers (3), Town Service Officer, Chemical Coordinator, Zoning Administrator, Emergency Management Coordinator, Energy Committee (9), Planning Commissioners (5), Development Review Board Members (7), Conservation Commissioners (9), Town Common Committee Members (3), Town Center Committee Members (5), Recreation Committee Members (5), Recreation Department Coordinator, Town Agent, Grand Juror, and Librarian.

The Health Officer and Fire Warden are appointed by the State of Vermont upon Selectboard recommendation.

At the 2014 Town Meeting residents voted to adopt a Town Charter, which was also approved by the Vermont State Legislature in 2014. Specifically, the Charter allows the Selectboard to appoint the previously elected positions of Treasurer, Listers, Delinquent Tax Collector, and Cemetery Commissioner. If the need arises, the Charter also allows for the appointment of a Grand Juror or a Town Agent. In addition, the proposed charter would allow for the removal of elected town officers by a vote of the electorate. Such a vote would need to be called for by a petition signed by at least 15 percent of registered town voters.

The primary challenge facing Town government with regard to its continued efficient operation, is the increased difficulty in finding qualified volunteers to carry out various duties. Furthermore, training of Town employees is important to ensure that their skill levels are consistent with accepted standards.

The Town Office in Westford has become responsible for informing residents of local news through the Westford Newsletter and Town Website. The Newsletter and Website provide residents with news about recycling, planning and zoning, students, local events, and local government issues. The Newsletter is published monthly and emailed or mailed to all Westford households with a registered voter. The website was upgraded in 2014 and is updated.

4.2.15 Town & School Owned Property

There are a total of 16 parcels owned by the Town, totaling approximately 92.13 acres as depicted on Town Plan Map 7. The Town sold a 40 acre landlocked parcel located north of Rogers Road, commonly known as the Martel Landlocked Lot, in 2013 and purchased a 1.7 acre parcel, commonly known as the Spiller Lot, located off Common Road and across the street from the Town Common. The School owns one parcel of approximately 77.6 acres where the elementary school is located. Furthermore, the Town and School jointly own a 19.5 acre parcel located on the Westford-Milton Road. Table 9 provides details on these parcels. The Town also owns five major structures, Town Office, Library, Town Common Pavilion, Covered Bridge, and Town Garage. All of these buildings and real estate, in addition to the Town right of ways, constitute very real community assets and represent a significant investment. Some parcels are less important than others, but all deserve some level of planning so as to be of good use or value to the community. None of the existing Town lands are developed specifically for recreational use by Westford residents.

**Table 7
Town & School Property**

Ownership	Description	Parcel #	Acreage
Town	Garage & Fire Dept.	06CM004	14
Town	Office/Library/ Common	05VL001	3.6
Town	Knights Pythias/Old Garage Site	05TW050	1.3
Town	Fiege Lot (Milton-Westford Rd)	01MW005	31.9
Town	Martel Lot (Milton-Westford Rd)	01ME003	14.9
Town	Spiller Lot (Common Rd)	05VL006	1.7
Town	Cloverdale Lot	07FT030	0.34
Town	Old Dump Site (Huntley Rd)	02HU037	1
Town	Jackson Lot (Brookside Rd)	05BS009.A	20.3
Town	Berthiaume Lot (Route 15)	07DF005.X	0.06
Town	Plains Cemetery	02PL009	1
Town	Brookside Cemetery	05ML008.A	0.20
Town	Cook Cemetery	06CN004	0.23
Town	Richardson Cemetery	06CN019	0.25
Town	Osgood Hill Cemetery	06ST002	0.35
Town	Cloverdale Cemetery	07FT022	1
School	Westford Elementary School Site	05BS009	77.6
School & Town	Milton-Westford Rd	01OC002	19.5

Source: Grand List, 2014

4.3 Facilities, Utilities & Services Goals & Objectives

1. **Community Engagement & Development** - Utilize the Town Common as the focal point of community life in Westford.
2. **Town Center Pedestrian Safety** - Enhance pedestrian access to the Town Common and surrounding buildings to ensure they are safe and accessible to all.
3. **Town Center Service & Safety Infrastructure** - Make further aesthetic, safety, parking and traffic-calming improvements to the Town Center Area.
4. **Town Center Density Infrastructure** - Expand Westford's role in providing infrastructure so that higher density development can occur in the Town Center Area.
5. **Road Maintenance** - Improve the quality and maintenance of the Town roadways.
6. **Waste Disposal & Reduction** - Reduce Westford waste production and better its disposal processes.
7. **Emergency Preparedness** - The Town will strive to keep the community safe, informed and prepared for potential disaster.

8. **Emergency Planning & Response** – Focus on emergency planning and response to ensure rapid, safe and efficient response in times of disaster.
9. **General Population Education** - Provide residents of all ages convenient, easy, and varied ways to learn.
10. **Public School Education** - Provide high quality education for our children, strive to ensure that Westford's schools meet or exceed state standards for educational facilities, and encourage use of the school property for the benefit and enjoyment of the community.
11. **Child Care** - Provide high quality child care for our children.
12. **Town Properties** - Manage town-owned lands to ensure they benefit Westford citizens.
13. **Town Cemeteries** - Maintain the cemeteries located in Westford.

5 ECONOMIC DEVELOPMENT

5.1 Policy

It is the policy of the Town of Westford to accommodate home occupations, home businesses, and small scale business, all of which can benefit residents and provide local employment. However, these businesses must be compatible with the landscape, located appropriately to conserve significant natural resources and working lands, and be in keeping with the rural character of our Town.

5.2 Inventory & Discussion

Westford is a rural bedroom community where the majority of its employed residents commute to work in the greater Burlington area and surrounding Chittenden County. The primary commercial base in Westford is composed of a diverse mix of home occupations and home businesses where residents conduct business of varying intensities from their home or from an accessory structure on their property. The secondary commercial base is a diverse mix of agricultural operations including equine, dairy, poultry, and produce. Finally, there are a few small scale businesses in our Town, primarily located on Route 15 and Route 128.

In general, the economic conditions experienced by businesses in Chittenden County, and to a lesser extent the State of Vermont, directly affect the economic well-being of the majority of Westford's residents. While there are many economic factors beyond Westford's immediate control, such as rising fuel costs and uncertainty regarding major regional employers, Westford can strengthen its own resiliency by fostering diverse local employment opportunities that are compatible with the community's rural character.

According to the 2009 community survey, Westford residents are near evenly split between promoting and discouraging commercial development. High speed Internet access and telecommunication services have improved since then, but are still limited for commercial uses. It should also be noted that residents were in agreement that agricultural and silvicultural based uses should be supported and encouraged.

The ability of Westford to successfully promote or attract commercial development is limited. Westford roads are primarily gravel and are weight restricted during the spring. There is also no 3 phase power available.

Westford should provide for and protect the viability of agriculture and agricultural lands. Westford has available agricultural lands, and the potential to grow a diverse agricultural economic base that includes agricultural related tourism. Our close proximity to the greater Burlington area provides us with a large consumer market for locally grown meats, produce, and other agricultural products. It is for this future economic potential that Westford shall act to protect its open agricultural lands from the effects of development. Westford will investigate incentives and shall create more zoning flexibility to facilitate the growth of agricultural land use to accommodate the planning needs of existing agriculture businesses. Furthermore, Westford is supportive of appropriate agricultural

operations and agriculture related businesses and will investigate the encouragement of new agricultural operations and agriculture related businesses.

Westford residents agree that our Town Center Area would benefit from certain types of small scale business, creating a more vibrant and desirable Town Center. While home occupations, home businesses, agriculture, and silviculture are more widely suited to our town, small scale commercial developments may be appropriate along Route 128 and Route 15 in due to road infrastructure and limiting geographic features elsewhere. All commercial development shall be in keeping with the rural character of Town. Furthermore, customer centric /consumer retail must be located in the Town Center Area in order to avoid strip development and encourage revitalization of the Town Center Area as the social and service hub of the community.

In 2010, the Town applied for and received Village Center Designation of the State of Vermont Department of Economic, Housing and Community Development for the area surrounding the Town Common. Designation provides tax incentives for substantial rehabilitation of certified historic buildings, facade improvements and code improvements, etc. to individuals with multifamily and/or commercial buildings located in the designated area. This designation encourages not only business in the Town Common Area, but the preservation of historic structures.

Lastly, Westford should continue to encourage the development of high speed Internet and telecommunications services to all Westford residents, so that everyone has the ability to conduct business from their home with up to date communications capability. Wireless telecommunications (Wi-Fi) is fast becoming “the next Frontier” of technology. Professionals increasingly rely on wireless devices to access information when away from the office. Some communities have created public Wi-Fi districts in their Village Centers, including the Village of Jeffersonville in the neighboring Town of Cambridge. Currently, the Westford Public Library offers patrons free Wi-Fi access. However, it is disabled during non-business hours

5.3 Economic Goals & Objectives

1. **Support of Business** - Support existing and future businesses that serve the community, provide employment, and are in keeping with the Town’s rural character.
2. **Digital Support of Business** - Westford should continue to encourage the development of high speed Internet to all Westford residents, so that everyone has the ability to conduct business from their home with up to date communications capability. Furthermore, the Town should encourage and seek to improve cell coverage for general community use, emergency response, public safety, and economic development.
3. **Natural Resources-Based Business** - Preserve and enhance resident’s ability to sustainably use Westford’s natural resources for commercial purposes, such as agriculture and silviculture.

6 TRANSPORTATION

6.1 Policy

It is the policy of the Town to provide for and maintain safe roads for vehicular and non-vehicular transportation as is reasonably prudent and to pursue energy and resource efficient transportation options for Westford residents.

1. The Town is committed to maintaining safe and adequate roadways for its residents.
2. Gravel roads should be maintained rather than paved unless paving a road is studied and (a) proven to be economically beneficial, (b) resultant traffic use does not unduly affect the adjoining properties with regard to safety and traffic volume, (c) fossil fuel use due to studied changes in traffic volume is a net reduction, (d) does not negatively impact pedestrian safety, and (e) paving has proven to be the best maintenance option for that road and/or portion of road.
3. The Town shall ensure necessary road and driveway standards for emergency vehicle access to all residential housing and businesses.
4. The Town will strive to increase the safety of non-vehicular modes of transportation on town roads, trails, and within the Town Center Area.
5. The Town should do all that is within its power to seek continued maintenance by the State for Routes 128 and 15.
6. The Town will strive to keep abreast of developments in regional transportation planning as well as seek local measures to increase transportation options for Westford residents.
7. The Town shall encourage modes and strategies of transportation that reduce fossil fuel consumption, when economically justified.
8. The Town should research policies and programs and potential Capital Funded investments especially culvert and bridge replacement to avoid or mitigate losses to private persons and property and to public infrastructure from Floods and Fluvial Erosion Hazards and if applicable propose implementation by the Town.

The Town will strive to maintain a safe and efficient transportation system that acknowledges the importance of appropriately designing culverts, bridges and road crossings to promote flood resiliency, aquatic organism passage and terrestrial animal movement.

6.2 Inventory & Discussion

6.2.1 Road Inventory

Westford is served primarily by a network of gravel secondary roads. The Town's most heavily traveled roads run north to south, following the overall topography of the Town. These are traversed by a network of east-west connections. Paved sections of road maintained by the Town include a short section at the northern end of Old Stage Road, a short section at the western end of Cambridge Road and the Milton-Westford Road. Numerous private roads adjoin town roads and serve individual housing developments. In addition, the Town holds rights-of-way to several roads that are not currently used by vehicles.

The most heavily traveled roads in Westford are State Routes 128 and 15. Route 128 runs north-south through the middle of Westford, and passes through the Town Center Area. Route 15 runs north-south through a small portion of the northeast corner of the town. Both highways are maintained entirely by the State of Vermont Agency of Transportation.

Several of Westford's roads act as major corridors for through travel to and from locations outside of town. VT Route 128 is trucking corridor and a commuter corridor connecting towns north and south of Westford. VT Route 15 is a trucking and commuter corridor used on the eastern section of town. The Westford-Milton Road provides access to VT Route 7 and VT Route 128 and 104 to the north.

These corridors connect Westford residents as well as non-residents to major hubs in the State. While they offer many benefits such as efficient travel and commerce, they also contribute to higher traffic volume, more safety concerns, more noise and increased road wear and maintenance.

Westford does not have any Class 1 town highways. There are 12.48 miles of Class 2 town roads, 26.86 miles of Class 3 town roads and 1.80 miles of Class 4 town roads. There are 39.34 miles of town highway and 9.37 miles of State highway (Route 128 & Route 15) in Westford for a total of 48.71 miles of traveled roads. There are also 4.82 miles of legal trails.

In Vermont, classes of roads are defined as follows:

Class 1 - Forms an extension of a State highway route and carries a State highway route number.

Class 2 - Serves as a connecting highway between towns or places with more than normal amounts of traffic. Cambridge Road and the Milton-Westford Road are examples of this town road class.

Class 3 - Highways other than Class 1 or 2, which are negotiable under normal conditions during all seasons by standard pleasure cars. Old #11, Plains Road and Manley Road are examples.

Class 4 - Highways other than Class 1, 2, or 3, which are typically not maintained for vehicular travel. However, the Town has created an ordinance governing maintenance of Class 4 roads. The Town has two classifications of Class 4 roads. Class 4-A are roads serving full time, permanent residents.

These roads receive year round maintenance. Seymour Road is an example. Class 4-B roads receive minimal maintenance as required by state statute. All Class 4 roads that are not classified as being Class 4-A are Class 4-B. Examples include Rogers Road.

These highways frequently function as trails; however, they are distinct from legally designated Town trails. The Town owns the right of way over a number of legal trails in addition to the Town road/highway system. Many of these trails follow old Town roads, and thereby connect current roads across areas not currently used by vehicles.

6.2.2 Road Committee

In 1998, the Westford Selectboard appointed a Road Committee following the very rainy and long mud season in the spring of 1998. The focus and mission of that Road Committee was "... to identify existing road maintenance policies and procedures and to make recommendations to the Selectboard for improving the Westford road maintenance program . . ." (1999 Westford Road Plan, pg. 2). In 2003, the Selectboard reformed a road committee to update the 1999 road plan for the next 5 years and did so again in 2010.

The focus of the Road Committee is to:

1. Review and update the Road Plan, as necessary.
2. Identify highway problems and new construction projects to be completed during the next five years, with consideration given to transportation hazards and mitigation actions identified in the All Hazards Mitigation Plan;
3. Make recommendations for budget items to be considered by the Selectboard for inclusion in the town budget;
4. Make recommendations regarding road repair/maintenance standards as well as other general road related policies.

The Westford Road Committee also convened in 2012 after an unusually bad mud season that included the closure of several roads and significant changes to the school bus routes during the closures. The Committee approached the Selectboard with their concerns and the Selectboard agreed to appoint the 2012 Westford Road Committee. This Committee had a much different focus than the last 3 Road Committees. There was a lot of communication with the Selectboard about what items the Committee would focus on and during the process, the Committee agreed to address specific requests that the Selectboard brought up. These issues included:

1. Road standards;
2. Winter sand analysis;
3. Mud season policy;
4. Heavy truck traffic;
5. Review of road maintenance practices by Vermont Local Roads;
6. Paving analysis;
7. Road foreman hiring assistance.

6.2.3 Transportation Options

School Transportation

At present k-8 students have school bus service to and from the Westford School for daily attendance and specific school events such as field trips and athletic events. High School students do not have direct school bus options to or from the high school of their choosing. The most commonly attended high schools of Westford students are:

1. Bellows Free Academy, approximately 4.3 miles from the Town Common.
2. Essex High School, approximately 11.5 miles from the Town Common.
3. Mount Mansfield Union, approximately 15.7 miles from the Town Common.
4. Burlington-area High Schools (Rice Memorial, Burlington, South Burlington), approximately 20 miles from the Town Common.

Students and their parents must provide their own transportation services which generally consists of daily trips for every student.

Commuter Transportation

In 2014 the south eastern parking lot on the Town Common was upgraded and paved using a State of Vermont Park and Ride Grant. Therefore, this lot, which once served as the unofficial park and ride lot, has officially been declared a park and ride facility. It is the only park and ride facility located in Westford.

The 2009 community survey indicated that a majority of respondents would support some carpooling and van pooling given the number of commuters who travel to and from the metropolitan area.

Public Transportation

Historically, the Chittenden County Transit Authority (CCTA) has concluded that bus service to and from Westford is not feasible. However, there have been efforts to develop innovative commuter service to add “on demand” services, ride share programs, and expand the overall service area in Essex. In 2013 CCTA began running a Jeffersonville commuter bus line which traverses VT Route 15 in the northern eastern part of Westford. However, there are no stops along the Westford stretch of VT Route 15. Westford should support and be supported by public transportation in the region. Westford should remain in contact with the CCTA and request service if public participation and interest warrants said request.

Seniors Transportation

Seniors in Westford are generally long-time residents of Westford who choose to remain in their homes, close to their family members and friends that reside in and/or close to Westford. Basic services (e.g. grocery, doctors and pharmacies) are not available in Town and thus residents must travel out of town to obtain such services. Seniors have few transportation options. No public transportation is available to allow seniors independent travel to or from service providers. However, the United Way has recently created Neighbor Ride, which uses volunteers to provide transportation to seniors and individuals with disabilities. This is a volunteer program in which drivers use their own vehicles for transport and are reimburse for mileage by the United Way. The

Special Services Transportation Agency (SSTA) also provides accessible transportation for people who have specialized mobility needs, such as physical or mental disability, using SSTA drivers and vans.

6.3 Transportation Goals & Objectives

1. **Road Maintenance** - Maintain and upgrade the existing road network to the level necessary for operation in an economically and environmentally sound way and ensure that appropriate road, culvert and bridge standards are adopted to guide these upgrades, enhance water quality, increase flood resiliency, and allow for aquatic passage and terrestrial animal movement.
2. **Growth & New Roadways** - Provide a safe transportation system to serve vehicles, bicycles and pedestrians that is appropriate to the Town's present and expected growth.
3. **Paving** - If paving is considered in the future, the Town shall study and consider the following to better assess whether paving is an efficient and effective method of maintenance:
 - a. Will paving be economically beneficial to the Town;
 - b. Will resultant traffic use unduly affect the adjoining properties with regard to safety and traffic volume;
 - c. Will fossil fuel use due to studied changes in traffic volume be a net reduction;
 - d. Will paving negatively impact pedestrian safety;
 - e. Will paving be the best long-term maintenance option for that road and/or portion of road.
4. **Inventories & Record Keeping** - The Town will strive to maintain an inventory of the road infrastructure (examples; bridge/culvert, flood damage sites, road surface issues, ditches) to determine issues, needs and priorities for road maintenance and other planning considerations.
5. **Speed Enforcement** - Reduce speeding and increase pedestrian safety on State and Town roadways.
6. **Reduce Vehicular Use** - Reduce vehicular use in innovative ways.
7. **Alternative Transportation** - Encourage innovative transportation options such as greenways, an interconnected system of pedestrian paths and trails for walking, biking and recreation, and the eventual provision of public transportation service via the Chittenden County Transportation Authority.
8. **Regional Transportation** - The Town shall actively work with the Chittenden County Regional Planning Commission and the Vermont Agency of Transportation to coordinate on local projects as well as projects that may affect the use of Westford's roads as a corridor of travel.

7 ENERGY

7.1 Policy

It is the policy of the Town of Westford to reduce our economic and environmental impact of energy use; encourage the use of alternative energy resources; reduce dependency on fossil fuels; increase energy efficiency, conservation and independence; and reduce municipal energy costs through energy efficiency, conservation and a full evaluation purchasing practices. Westford shall encourage the affordability and sustainability of living, working, and doing business in Westford and will continually strive to reduce Westford's impact on the local, regional, and global environment. Our electric and heating consumption can be reduced by as much as 25 - 30% through conservation.

7.2 Inventory & Discussion

Westford's energy use follows conventional patterns. Most energy sources are fossil fuel based for heating and transportation, except for the use of wood for supplemental heat (wood heat is a carbon emitter, but is not a fossil fuel). Electricity is provided through the state-wide electric utility grid with a current majority of the base load power supplied by imported energy from Hydro-Quebec, and spot or peak demand electricity being obtained on the open market dominated by natural-gas fired stations around New England.

A nuclear station, Vermont Yankee (VY) in Vernon, Vermont provided a large portion of Vermont's base load through 2012. In 2013, the owners of VY (Entergy; New Orleans, Louisiana) concluded the plant was not financially viable and shut the plant down at the end of 2014. The plant will now follow the NRC decommissioning requirements. The base load power supplied by VY has been made up by power purchases from Hydro-Quebec and other sources outside of Vermont.

As stated above, Vermont's electric supply is largely from Hydro Quebec. Retail electric prices have steadily increased but Vermont currently has the lowest electric costs of all the New England states. Westford is served by two electric utilities, Vermont Electric Cooperative (VEC) and Green Mountain Power (GMP). Prior to 2013, Central Vermont Public Service (CVPS) was the second utility that had served part of Westford, but they were acquired by GMP (owned by Hydro-Quebec), which is now the largest electric utility in the State. Currently, only single-phase power is available within the Town. The closest three-phase power lines are located within Milton, off of the Westford/Milton Road, and north of town in the Town of Fairfax, approximately 0.5 miles from the border of Westford, and 3 miles from the Town Center area. Due to uncertainty in the power supply market retail electricity costs are expected to increase with a largely aging fleet of power plants and increasing use of natural gas in the residential and commercial sectors challenging the primary peak power suppliers fueled by natural gas.

Westford is not serviced by natural gas although it is available in some bordering towns such as Fairfax, Essex, Georgia, and Jericho. Vermont Gas Systems currently does not have plans for expansion into Westford due to the low density of housing and few commercial businesses. Due to the lack of natural gas service, Westford matches the majority of the State for its heating fuel sources of oil, propane, kerosene, and wood.

Vermont has a growing renewable energy power supply, with sharp increase in Photovoltaic (PV) and Wind Energy projects developed over the past 5 years. The nearest commercial wind energy generator is located to the north-west of Town in the Towns of Milton and Georgia. The use of bio-gas power from farm methane production has also been increasing.

With the closure of Vermont Yankee, renewable energy development represents most of Vermont's in-state power production. The State renewable energy portfolio is mandated to increase and increased development should be expected. However, challenges such as grid level power management, power distribution, aesthetics, and environmental concerns may limit renewable energy development. The citizens of Vermont continue to debate the merits of renewable energy versus other ideals. The policies of Westford in part reflect these State-wide debates.

Fossil fuel based energy use is costly from an economic and environmental perspective, as well as impeding state energy independence. Fossil fuels are purchased from out of state sources, and fossil fuel prices have become extremely volatile putting a financial burden on the citizens of the town for their heating and commuting requirements.

The environmental impact of fossil fuel use has been well documented, and includes carbon emissions that contribute to climate change and other pollutants such as particulates. Drilling, mining, and importing of fossil fuels into our region also have substantial environmental impacts.

State energy independence is compromised due to the fact that all fossil fuel energy is imported from out of state and alternative fuel sources (non-fossil fuel) are currently not readily available in the open market. Vermont has enacted a ban on the natural gas drilling technique, commonly known as fracking.

The Town will encourage and employ conservation and energy efficiency practices, use and development of renewable energy resources and reduction of fossil fuel use for transportation, town maintenance, and town infrastructure. It will also encourage and facilitate citizens of Westford to reduce their carbon footprint through educational programs and other Town-sponsored programs including providing financial incentives and/or informational resources.

7.2.1 Public Buildings

The Town's and School's municipally owned buildings and infrastructure and their primary fuel sources are listed below:

1. Westford Elementary School - wood chips, oil, electric & use of all of fuels listed for domestic hot water (dhw)
2. Town Garage & Fire Department – oil & electric for dhw
3. Town Trucks & Equipment – gasoline & diesel fuel
4. Town Office – oil, electric for dhw & central air conditioning
5. Public Library – oil & electric for dhw (In 2015, an electric air sourced heat pump is planned and the oil furnace system will be decommissioned.)
6. United States Post Office – oil, electric & oil for dhw

Although the Post Office is a leased federal building, Westford citizens pay federal taxes to maintain the building, which is heated with oil. The post office was once located at the Town Common but is now located outside of the Town Center on Route 128, and is mostly accessed by motorized vehicles using fossil fuels.

7.2.2 Other Public Oriented Buildings

Brick Meeting House – oil & propane

United Church of Westford – oil

The Town maintains records of fuel use as part of standard financial records but does not proactively track or manage energy use. Historically, energy efficiency and weatherization have been considered on a first cost basis and not a life cycle cost basis for the municipally owned buildings.

In 2009, the Town was awarded a Climate Action Grant to upgrade the Town Office building to reduce its energy use and therefore its carbon emissions. The Westford Library and the United Church of Westford also applied, but did not get awarded the same grant.

7.2.3 Privately Owned Buildings

The State law has residential and commercial energy codes mandates the filing of a self-certifying “Residential Building Energy Standards” certificate with the Town Clerk. In 2014 the Town began requiring that these certificates be recorded in the Westford Land Records prior to the issuance of a Certificate of Occupancy.

In 2013, the Town of Westford voted to be a Property Assessed Clean Energy District (PACE) district. PACE allows for residential only, renewable and energy efficiency projects to be funded via a special tax assessments on properties that use PACE. No residences other than those that use PACE for a particular project pay the tax assessment.

The Town Office personnel hand out State supplied Energy Code Handbooks and materials upon request. In 2008, the Town sponsored a workshop for residents funded by the Agency of Natural Resources, “Button-Up Vermont”, largely in response to the increase of heating fuel prices during the summer of 2008.

In the spring of 2009, the Town appointed an Energy Committee to continuously seek means to reduce energy costs (economic and environmental) through-out the town by:

1. Assisting the Planning Commission in the development of energy related regulations.
2. Providing assistance and/or information to town boards (Select board, Planning Commission, Conservation Commission, Town Center Committee, etc.).
3. Providing educational opportunities for citizens in energy conservation, renewable energy, environmental sustainability and global warming.
4. Being a general information resource and advocate for the citizens of the Town of Westford.
5. Conducting energy studies and projects as directed by the Selectboard.

In 2014 the Planning Commission drafted regulations which would grant density bonuses to develops that include small homes (<1,200 sq. ft.) in hopes of encouraging and incentivizing smaller, more energy efficient home design.

7.2.4 Renewable Energy

No large scale renewable energy systems exist in Westford. Westford's renewable energy resources are largely undeveloped. Some residential scale renewable systems exist and the installation of these systems has been increasing over the past 5 years. Large scale renewable systems have a potential restriction within the Town due to a lack of three phase distribution supply lines. The Vermont Sustainable Jobs fund has mapped renewable energy resources across the State. Westford's wind potential is generally marginal; solar potential is site specific; and hydraulic resources are low, although there may be sites that might allow for significant "micro" hydro resources.

Renewable energy projects, with the exception of small scale micro hydro, shall (a) conform to the Water Resource Overlay and Flood Hazard Overlay Zoning Districts, (b) not impact significant natural resources, (c) minimize forest fragmentation in the future Forestry District, (d) follow existing silviculture and agriculture roads to the greatest extent possible, and if sited on agricultural soil be installed in such a manner as to not preclude future agricultural use of the land.

7.2.5 Land Use

The Town has retained much of its rural character, which lends itself to be potentially more self-sufficient through agriculture and forestry to provide food, shelter, and fuel. However, as discussed in Section 5 (Economic Development) and Section 8 (Natural Resources and Natural Features) of this Plan, the amount of land in active agriculture and forestry continues to decline and development pressure increases the risk of losing viable land to residential housing. Although the Town has a Town Center Area, most products for consumption are obtained outside of town which requires substantial energy resources for travel to and from markets and heating fuels are transported into town. The Town aspires to have a vibrant Town Center Area where trading of local goods and services could provide for its citizens in a sustainably responsible manner: reducing energy used by residents to obtain goods and services from elsewhere, as well as reducing the inherent energy costs associated with produce and materials that come largely from outside of the state and even the country.

7.2.6 Transportation

Westford's largest economic and environmental energy-use impact is due to transportation. A large majority of Westford's residents commute to places of business and trade outside of Town using fossil fuel (gasoline and diesel). Transportation is covered in section 6 of this Plan. Energy issues related to transportation are within the scope of that section.

7.3 Energy Goals & Objectives

1. **Municipal Energy Awareness** - Strive to increase awareness about the economic and environmental energy costs associated with our municipally owned or funded buildings and infrastructure (
2. **Municipal Energy Reduction** - Advocate for affordable and sustainable operation of buildings, equipment and infrastructure.
3. **Public & Private Renewable Energy Generation** - Increase the private and public use of renewable energy.

8 NATURAL RESOURCES & FEATURES

8.1 Policy

It is a policy of the Town of Westford to maintain the rural character of the Town by supporting appropriate residential and commercial growth while preserving and conserving natural resources and features. Conservation and preservation of these resources is fundamental to the Town's rural character, ecological integrity, and biodiversity.

8.2 Introduction

Westford contains natural resources and features that distinguish it from several of the neighboring towns. Towns to the north, south, and west have seen more growth over the years resulting in fewer natural resources. Wilder areas to the east, continuing toward the spine of the Green Mountains, are more rural with larger areas of open space and smaller population densities. Most of Westford is heavily forested with wooded swamps, ponds, rivers, streams, marshes and beaver flowages interspersed throughout the forests, meadows, and agricultural land. There is a wide array of habitats, making Westford home to many of the species of plants and animals native to the northern hardwood forest.

In rapidly urbanizing Chittenden County, Westford serves as an important natural area that is home to many species of flora and fauna and serves as a wildlife corridor to habitat in more remote, largely contiguous, open space to the east. These contiguous forests, along with agriculture and silviculture lands, are at the core of the rural character of our state and our town. Westford is located on the border between largely undeveloped natural resources and the sprawl of Vermont's largest city.

8.3 Definitions

The following definitions apply to the terms used in this chapter and the document as a whole.

Agriculture

1. The cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops;
2. The raising, feeding, or management of livestock, poultry, fish, or bees;
3. The operation of greenhouses;
4. The production of maple syrup;
5. The on-site storage, preparation, and sale of agricultural products principally produced on the farm;
6. The on-site production of fuel or power from agricultural products or wastes produced on the farm; or
7. The raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing instruction and lessons in riding.

Conservation

1. The management of land and water in ways that prevent it from being damaged or destroyed;
2. The careful use of energy, water, and other resources, so that they are not wasted or lost;

3. Preservation, protection, or restoration of the natural environment, natural ecosystems, vegetation, and wildlife; or
4. Preservation, repair, and prevention of deterioration of archaeological, historical, and cultural sites and artifacts.

Contiguous Forest Habitat

Contiguous forest habitat, as demarcated in Town Plan Map 10, is an area of forested land with either no roads or low densities of class 4 roads and little or no human development (buildings, parking areas, lawns, gravel pits). This can include a mix of working and natural habitats.

Deer Wintering Habitat

Deer winter habitat is defined as areas of mature or maturing softwood cover, with aspects tending towards the south, southeast, southwest, or even westerly and easterly facing slopes.

Designated Open Space

PUD classified open space which provides continual conservation of significant natural resources, natural processes, wildlife habitat, agricultural and silvicultural practices, active and passive recreation, and/or other public benefit.

Endangered Species

An endangered species refers to species whose continued existence as a viable component of the nation or state's wild fauna or flora is in jeopardy of extinction.

Grassland

An area, such as a prairie, meadow or farmland of which the natural vegetation consists largely of perennial grasses.

Mast Stand

'Mast' is a term commonly used by foresters and wildlife biologists to describe the seeds of shrubs and trees that are eaten by wildlife. 'Hard mast' refers to nuts (especially those of beech and oaks), whereas 'soft mast' refers to berries of a variety of species. Hard mast is generally acknowledged as an important wildlife food source.

Natural Resources

Land and water, flora and fauna, habitat, and wildlife corridors.

Open space

An area of undeveloped land that is valuable for natural processes and wildlife, agricultural and silvicultural purposes, active and passive recreation, and/or providing other public benefit.

Preservation

1. To maintain in a unaltered condition;
2. To protect from injury, peril or harm; or
3. To keep intact and unchanged.

Rare Species

A rare species is one that has only a few populations in the state and that faces threats to its continued existence in Vermont. Rare species face threats from development of their habitat, harassment, collection, and suppression of natural processes (including natural fires).

Rural Character

Rural character is comprised of sparsely populated, undeveloped and working (primarily of agriculture and silviculture nature) land. Large open spaces surround the immediate boundaries of a defined Town Center Area that functions as the center of community and commerce activities traditionally associated with rural living/character. Buildings outside of the Center demonstrate a strong relationship to the surrounding working landscape and blend easily with their surroundings. Life is quiet, absent of urban sounds, and its disturbances. Views are unimpeded with rolling meadows, wooded hillsides and pastured animals. Roads are mainly dirt with light traffic, where farm machinery, bicycles and horses are common travelers and gardens, firewood, and fresh air are considered necessities. Most of all it's the people who have created and maintain it as rural. They provide the soul of rural tranquil character, people who are deeply connected to the land with the stories to prove it.

Figure 10
Rural Character Illustrations



Significant Natural Communities

A significant natural community is an interacting assemblage of plants and animals, their physical environment, and the natural processes that affect them. These assemblages of plants, animals and habitat are uncommon and/or exemplary examples of a natural community in the Region and/or State.

Significant Natural Resources

Land that supports one or more of the following seven ecological principles that have been identified and accepted as a basis for habitat protection in developing areas:

1. Maintain large, intact patches of native vegetation;
2. Protect habitats that are key to the distribution and abundance of priority species;
3. Protect exemplary natural communities and aquatic features;
4. Maintain connections among wildlife habitats for movement and gene flow;
5. Maintain significant ecological processes (such as those associated with wetlands and floodplains for recharging groundwater and filtering surface water; or
6. Contribute to regional persistence of uncommon, rare, threatened, and/or endangered species by protecting their habitat locally.

Silviculture

Silviculture is the science, art, and craft of creating, managing, using, conserving, and repairing forests and associated resources, in a sustainable manner to meet desired goals, needs, and values for human benefit. Forestry is practiced in plantations and natural stands.

Stewardship

The careful use, management and conservation of land and natural resources to retain value and ecological function for future generations.

Threatened Species

A threatened species is defined as a species whose numbers are significantly declining because of loss of habitat or human disturbance, and unless protected will become an endangered species.

Uncommon and Common Species (Apparently Secure)

Locally common or widely scattered to uncommon, but not rare; some cause for long-term concern due to declines or other factors; or stable over many decades and not threatened but of restricted distribution or other factor.

Uncommon Features

Uncommon features are environments and geologic features not often seen in the Region or State and/or that faces threats to their continued existence in Vermont.

Uncommon Species (Vulnerable)

At moderate risk of extinction or extirpation due to restricted range, relatively few populations or occurrences (often 80 or fewer), recent and widespread declines, or other factors.

View Shed

A view shed is an area of land, water, or other environmental element that is visible to the human eye from a fixed vantage point. View sheds are areas of particular scenic or historic value that are deemed worthy of preservation against development or other change. View sheds are often spaces that are readily visible from public areas such as from public roadways and/or public parks.

Wildlife Corridors

Connecting habitat that links larger patches of habitat within a landscape, allowing the movement, migration, and dispersal of animals and plants. Riparian habitat along streams and rivers, strips of forest cover between developed areas, and even hedgerows/ fencerows all represent potential connecting habitat. Sometimes these areas are called 'corridors' even though they are not always linear, as the term may imply.

Working Lands

Land actively used for silviculture or agricultural operations and/or containing prime forest and/or agricultural soils.

8.4 Inventory & Discussion

8.4.1 Significant Natural Resources

Significant natural resources are resources identified by the Town as being crucial to maintaining healthy ecosystems; biodiversity; uncommon features, uncommon, rare, threatened, or endangered species; water quality; rural character; and productive working lands. These natural resources are often located in areas unsuitable for development and are characterized by steep slopes, lack of access, hill tops, wet areas, and/or soils not suited for wastewater disposal.

The following resources/areas shall be designated as the Significant Natural Resources:

1. Deer wintering habitat as depicted on Town Plan Map 3 or using the best available data;
2. Uncommon species and/or features as depicted on Town Plan Map 3 or using the best available data;
3. Rare, threatened, or endangered species as depicted on Town Plan Map 3 or using the best available data;
4. Significant natural communities as depicted on Town Plan Map 3 or using the best available data;
5. Contiguous forest as mapped by the Vermont Department of Fish and Wildlife or using the best available data;
6. Grassland and bird habitat, as studied and/or using the best available data;
7. Mast Stands, as studied and/or using the best available data;
8. Vernal Pools, as studied and/or using the best available data;
9. Flood Hazard Overlay, Fluvial Erosion Hazard Areas, and Water Resource Overlay Districts as depicted on Town Plan Map 5; and
10. Any other natural resources that meet one or more of the seven ecological principles of significant natural resource.

In Vermont, natural resource inventories have taken place at the county and watershed level, with regard to significant natural communities. However, only a few towns have completed such inventories. Identification of significant natural resources and communities can help to focus town efforts on those areas that need conservation and management attention. Completing a natural resource inventory of the Town can further focus stewardship and protection needs and can assist with identification of important wildlife habitat and corridors. Identifying these resources is a

powerful tool for developing effective land management plans, determining conservation priorities, and increasing our understanding of the natural world.

8.4.2 Significant Natural Communities

The Vermont Fish and Wildlife Department (VFWD) currently recognizes 80 upland and wetland natural community types in Vermont. State ranks range from S1 (extremely rare) to S5 (common and widespread) and are based on the number of known examples, the total area occupied, and the degree of threat. Each example of a natural community that is evaluated by the Department's Fish & Wildlife's (DFW) Wildlife Diversity Program is also assigned a quality rank. This measure is intended to compare occurrences of a particular community type with others statewide or with types in a particular biophysical region in the state. The quality ranks range from excellent (A) to poor (D) and are based on specifications developed for each of the 80 natural community types. The overall significance of a natural community occurrence is tied both to its state rank - how rare it is in Vermont - and to its quality rank, a measure of the size and condition of that particular occurrence. Source: VT Dept. of Fish & Wildlife, 2014

Westford contains a number of significant natural communities recognized by Vermont Fish and Wildlife Department as depicted on Town Plan Map 3, including Stewart Hill, Mountainview Bog, Hidden Swamp and Westford Swamp (partly in Essex). Westford significant nature communities range from rare to uncommon and are generally in excellent to good condition. These communities must receive the highest level of protection and require study prior to any development within or in proximity to them. Westford shall make protection of significant natural communities a top priority of the Town by given them the highest level of protection.

8.4.3 Uncommon, Rare, Threatened & Endangered Species

The Vermont Fish and Wildlife Department uses a ranking scheme that describes the rarity of species in Vermont. The range is from S1 (very rare) to S5 (common and widespread). Species are assigned a rank based on the number of known examples, the population size, and the degree to which the populations are threatened.

Threatened species are defined in 10 V.S.A. Chap. 123 section 5402 as a species whose numbers are significantly declining because of loss of habitat or human disturbance, and unless protected will become an endangered species. As of July 2003, there were 195 species of plants and animals in Vermont that are protected by the Vermont Endangered Species Law (10 V.S.A. Chap. 123) and assigned a status of either threatened or endangered. Some of these species that occur in Vermont also have a federal status of threatened or endangered, and are protected by the Federal Endangered Species Act (P.L. 93-205).

Endangered and threatened species are defined in both State and Federal law. State law defines endangered species as "a species listed on the state endangered species list under {10 V.S.A. Chap. 123 section 5401} or determined to be an 'endangered species' under the federal Endangered Species Act. The term generally refers to species whose continued existence as a viable component of the state's wild fauna or flora is in jeopardy.' Any taking, which may include harassment or harm to a state threatened or endangered species, is a criminal offense unless permitted by the Agency of Natural Resources.

Protecting and restoring uncommon, rare, threatened, and endangered species represents one of the most difficult conservation challenges in Vermont. This is an issue that should be addressed in local, regional, and statewide planning. Source: VT Dept. of Fish & Wildlife, 2014

Westford harbors its own set of endangered, threatened, rare and uncommon plant and animal species that contribute to the overall diversity of the town, region, and state as identified on Town Plan Map 3. Thus far, VT Fish and Wildlife Department have identified two types of uncommon and vulnerable birds at three locations, four types of uncommon and vulnerable fish located in Morgan Brook and the Browns River, and ten types of plant that are rare or uncommon and vulnerable located at numerous sites, including Hidden Swamp, Westford Swamp, Mountainview Bog and Stewart Hill. These species should receive the highest level of protection.

8.4.4 Deer Wintering Habitat

White-tailed deer in Vermont live near the northern limit of their range in eastern North America. To cope with Vermont's severe climatic conditions, deer have developed a survival mechanism that relies upon the use, access, and availability of winter habitat. These habitat areas are known as deer wintering areas, deer winter habitat or, more commonly, 'deer yards.' Deer winter habitat is defined as areas of mature or maturing softwood cover, with aspects tending towards the south, southeast, southwest, or even westerly and easterly facing slopes.

Deer wintering areas vary in size from a few acres to over a hundred acres and provide essential relief to deer from winter conditions. These areas of softwood cover provide protection from deep snow, cold temperatures, and wind. They provide a dense canopy of softwood trees, a favorable slope and aspect generally moderate elevation, and low levels of human disturbance in winter. The softwood species that compose these areas are most commonly hemlock and white pine in the southern part of the state, and white cedar, spruce, and fir in the north. Energy loss by deer inhabiting these sites is minimized, and survival is favored in deer wintering areas. Wintering areas do not change significantly between years and can be used by generations of deer over many decades if appropriate habitat conditions are maintained. Deer annually migrate, often several miles, from fall habitats to wintering areas. A single wintering area often serves deer from large areas of a town and in some cases from surrounding towns as well. Residential, commercial, or industrial development within or adjacent to a deer wintering area decreases the amount of winter habitat available to deer and has an effect on an area's deer population, eventually reducing the number of deer within the area. Without adequate winter habitat, northern populations of deer would be subject to extreme fluctuations due to heightened levels of winter mortality during moderate and severe winters.

In addition to benefits for deer, dense softwood stands provide critical winter food supplies for a variety of other wildlife species including porcupines, snowshoe hare, fox, fisher, coyotes, bobcats, crows, ravens, and red and white-winged crossbills to name a few. Other wintering birds routinely find shelter from winds in these conifer stands. Logging can be either detrimental or beneficial to the habitat depending on the harvest method employed and the overall sensitivity shown by the logger and landowner to maintaining these areas of dense softwood cover.

Conserving deer wintering areas is essential to maintaining and managing white-tailed deer in Vermont. Deer wintering areas make up a relatively small percentage of the land base of most towns. In fact, only 8% of the forested landscape of Vermont has been mapped as deer winter habitat, so it is not an abundant habitat across the state. Westford currently contains four mapped deer wintering habitats. However, the size of these areas have been diminishing rapidly due to deforestation (logging) and development in and/or in close proximity to these areas. Source: VT Dept. of Fish & Wildlife, 2014

8.4.5 Mast Stands

In Vermont, 171 species are known to use beech or oak stands as habitat including 16 amphibian, 9 reptile, 102 bird, and 44 mammal species. These include species on federal and state endangered/threatened species lists, permanent residents, and migratory birds. These mast stands can occur as discrete stands or patches on the landscape and can be delineated as such (similar to delineating a wetland or deer wintering area).

The reliance of black bear on hard mast has become so well established that the Vermont Fish and Wildlife Department considers areas of beech or oak with a history of bear feeding use to be necessary wildlife habitat as defined by Act 250. A number of studies have documented the relationship between hard mast and bear nutrition. Elowe and Rogers (1989) state that the availability of hard mast in the fall affects the minimum reproductive age of bears, productivity rates, and cub survival. The authors also reported that female bears exhibit reproductive 'skips' after poor mast years and that fall weight gains were keyed to mast availability. Simply put, these stands of beech and oak used by black bear are essential for the survival and reproduction of this species in Vermont.

For example, the American beech is a common tree species associated with Northern Hardwood Forest natural communities. However, concentrated stands of beech that are used by black bears are not common; they represent a small fraction of the overall forested landscape of the state, hence their significance for conservation planning. Development within the boundaries of the beech/oak stand obviously directly affects the productivity and bear use of the stand, but even development near a mast stand can diminish the function and use of this habitat. Source: VT Dept. of Fish & Wildlife, 2014

Westford does not have any information on and/or delineation of mast stands located in Town. However, inventorying and mapping of this resource should be made a priority of the Town.

8.4.6 Grassland & Bird Habitat

Today, most of Vermont's grassland habitats occur in the Champlain Valley and, to a lesser extent, in the Connecticut River Valley and the area around Lake Memphremagog. There are other grasslands of various types and sizes scattered across the rest of the state. Most grasslands are associated with current or past agricultural practices. There are, however, grasslands that are the result of other human activities and are maintained for specific purposes. Most of Vermont's grasslands are in private ownership, although the state and federal government own small areas of this habitat.

Since a probable historic high during the agricultural boom of the 1800s, populations of grassland birds have declined substantially in Vermont, primarily as a result of habitat loss. Habitat loss has resulted from forest succession after farm abandonment, changes in agriculture practices, and residential, commercial, and industrial development. Other potential threats include the extensive use of agricultural pesticides and changes in wintering habitats outside of Vermont. Source: VT Dept. of Fish & Wildlife, 2014

Conversion of natural grasslands elsewhere in the Northeast and the Midwest led to the decline of grassland birds in their historic natural habitats and has prompted Vermont, and the Northeast in general, to take on a greater role in the conservation of grassland birds. The North American Bird Conservation Initiative (NABCI) has designated grassland birds as a priority species in Vermont. Westford does not have any information on and/or delineation of grasslands and/or bird habitat located in Town. However, bobolinks and egrets have been observed in Town. Inventorying and mapping of this resource should be made a priority of the Town.

8.4.7 Contiguous Forest Habitat

Contiguous forest habitat is an area of forested land with little or no human development or roads and can include a mix of working forest and natural habitat. There may be various age classes of forest cover and various habitats such as wetlands and meadows which are all part of the overall contiguous habitat complex. There is no minimum number of acres that define a contiguous forest, but more important is to consider the overall configuration and connections to other contiguous areas. Connecting lands, or wildlife corridors, are required to ensure that various habitats can be accessed by species that require resources in different parts of the forest that may be located small or large distances from each other. The configuration of contiguous areas are also important because a high degree of forest edge may make the overall area less suitable to some species than a similar contiguous area with a regular shape and fewer edges.

When development occurs within contiguous forest habitat, the size and configuration of the formerly contiguous area changes, more forest edge is created, and critical habitat may be destroyed. More development in the area can create the effect of irregularly shaped contiguous forest. Given the significant risk of continued fragmentation of forest habitat due to development, it is beneficial to conserve large areas to maintain forest habitat and connections to other habitat outside of Westford's borders. Contiguous forest habitat can include working lands (e.g. silviculture). Through the use of forest planning, management, and best practices both goals of working forest lands and wildlife habitat with contiguous forest habitat blocks can be met. Source: VT Dept. of Fish & Wildlife, 2014

There is a significant portion of contiguous forest habitat within the borders of Westford. Large clusters of open space representing over 10,000 acres are located on the eastern half of the town and range from the north to the south town borders. There are also tracts of over 2,000 acres near the western and south central town border, and a few additional pockets of several hundred and thousand acres of contiguous forest throughout town. Many of the larger contiguous areas continue into the neighboring towns of Cambridge, Underhill, Jericho, Colchester, Essex and Milton, and connectivity to the greater regional landscape should be taken into consideration in any conservation efforts.

For the purpose of understanding the significance of these areas based on their size and ability to provide critical habitat the following information has been provided:

Anchor Blocks, or blocks of contiguous forest greater than 10,000 acres in size. Anchor blocks provide large blocks of contiguous critical habitat for species such as black bears, spotted salamanders, moose, and barred owls. These are the primary homes for many animals.

Connecting Blocks, or blocks of contiguous forest between 2,000 acres and 10,000 acres in size. Connecting blocks provide critical habitat for species because they have good forest cover but are not necessarily large enough to maintain populations of wide-ranging species.

8.4.8 Wildlife Corridors

Movement of animals from one habitat patch to another is the most common function associated with connecting habitat. This function is particularly important for wide-ranging animals, such as bobcats and black bears, or for animals that require a great deal of space to meet their daily life needs, such as barred owls or otter. Although connecting habitat is often associated with wide-ranging mammals, it is equally important for animals with relatively small ranges. Spotted salamanders, for example, use connecting habitat in spring to move from their hibernation sites to breeding pools. Some species roam vast areas on a daily or weekly basis, while others move more seasonally, as is the case with deer moving to and from wintering areas in Fairfax, Cambridge, Underhill, Jericho, Essex, Colchester, and Milton.

The broader ecological value of connecting habitat is to join fragmented pieces of habitat, thereby reducing the deleterious effects of habitat fragmentation and population isolation. Linking small or otherwise isolated habitat patches may reduce the risk of local population extinctions by ensuring immigration, recolonization, reproduction, and exchange of genes for some plant and animal species.

While conserving corridors has great merit, do not assume that conserving threads of vegetative cover within a developing landscape will maintain an area's ecological values and biological diversity. Nor will corridors alone meet the habitat needs of all of an area's plant and animal species. Only in conjunction with the conservation of large areas of undeveloped land with diverse habitat conditions, and the maintenance of a sustainable working landscape, will vegetative corridors assist in supporting ecosystem functions and related public benefits.

Connecting (corridor) habitat is important because it does the following:

1. Allows animals to move freely across their range;
2. Allows plants and animals to colonize new habitat as climate change, succession, or other ecological processes force them to migrate;
3. Reduces the risk of population isolation and provides for the exchange of genetic information among populations of animals and plants;
4. Allows animals to access suitable habitat to meet their daily and annual life needs;
5. Allows seasonal movements (migrations) to essential range or habitat;

6. Allows young adult animals to access new range, away from natal range; and
7. Allows adult animals to interact with potential mates, thus improving reproductive success and genetic fitness. (VT Dept. of Fish & Wildlife, 2014)

Westford has a general east-west corridor in the southern half of the town, north-south corridors in the eastern and western sides of town, and numerous corridors associated with riparian areas conserved by the Water Resource Overlay District. Many natural wildlife corridors have been cut off or reduced in size as a result of development and this often results in more human-animal interactions, especially on roads. The largest potential for wildlife road crossings can be identified by Map 10. The eastern side of town has a large contiguous forest, known as an Anchor Block, which facilitates wildlife movement primarily north and south. However east-west movement is hindered by up to five roads in town. One of those roads is VT Route 128, which sees both higher traffic and higher speeds than local roads. Considering the inherent risk to wildlife and citizens of Westford, it is important to accommodate safe wildlife corridors, especially where natural corridors have been dissected by roads and development.

8.4.9 Working Lands

Westford has enjoyed a rich history of small family farms working our Town's open and forested lands. Traditionally, agriculture and silviculture products with their associated businesses contributed to the majority of household incomes well into the 1960s. Since then, Westford has experienced a steady decline in the number of family farms and the complete demise of lumber and wood working mills.

Today the majority of residents commute to employment outside of Westford. Fewer residents work our land, yet Westford remains well suited for agriculture and silviculture pursuits with large areas of forest and open land still actively managed. However, this landscape is threatened to be lost forever to urbanization and fragmentation as development pressures steadily increase. The desire to protect our Town's agriculture and silviculture potential is supported by two motivating factors. First, the vast majority of Westford residents, when surveyed, support preservation and conservation of forest lands and open lands. Second, Vermont consumers are trending to more sustainable, localized agricultural products and Westford is ideally situated near the largest population density in the State to satisfy this growing demand.

Current Use Program

As of 2014 Westford had 107 parcels, equating to 12,342 acres or almost ½ of the town's total acreage, enrolled in the Vermont Current Use Program.

Agricultural Soils Mitigation

The Future Land Use Map provides guidance to the District Environmental Commission relative to agricultural soils mitigation. When a development subject to Act 250 impacts agricultural soils, mitigation of these soils is required. In general, Act 250 is structured to prefer "on-site" mitigation – that is, modifying the site design of the project so that the soils are not impacted (See § 6093(a)(2)). However, the District Commission may authorize "off-site" mitigation if "that action is deemed consistent with the agricultural elements of local and regional plans." (See 10 VSA § 6093(a)(3)(b)).

The language below defines appropriate circumstances under which “off-site” may be approved by the District Commission for each Zoning District/Planning Area:

Common District – In light of this district’s role as the center of community in Westford, off-site mitigation should be allowed throughout this district. Where a development contains affordable or elderly housing, or provides for community wastewater treatment, mitigation fees should be waived, or be at the minimum ratio allowed by statute.

Village District -- In general, off-site mitigation should be allowed in this district, except as discussed below. Where a development contains affordable or elderly housing, or provides for community wastewater treatment, mitigation fees should be waived, or be at the minimum ratio allowed by statute. However, the foreground meadows and fields on Brookside Road and on Route 128 south of the Town Common should remain open. These foreground meadows should be targeted for mitigation purchases associated with development occurring elsewhere in Westford and Chittenden County. Contrarily, off-site mitigation should be allowed for subdivisions or developments that are eligible for at a density bonus under the Westford Unified Development Regulations. These include developments that provide diverse housing options (elderly housing, affordable housing, units meeting universal design standards, and/or units with less than 1,200 square feet of living space); or developments in which at least 80% of the land area will be permanently conserved through a conservation easement held by an appropriate public or non-profit entity; or developments that provide a suitable site for a community wastewater that could reasonably serve development in the Common or Village District; or developments that provide public trail access and/or recreation areas; or developments that allow for vehicular connectivity by constructing a private road that will connect to adjacent property in the future.

Rural Residential District – Much of this area consists of prime agricultural soils. However, development below thresholds triggering Act250 has resulted in the loss and fragmentation of much of these soils. As a result, much of this area is no longer viable for commercial agriculture. When possible, the remaining agricultural soils should be incorporated into developments as central greens, community gardens, or similar outdoor spaces. Off-site mitigation should be allowed for any development that contains affordable or elderly housing.

AFR I and II Districts – These areas contain much of the agricultural soils in Westford, as well as the majority of the working farms in Town. These areas should be targeted for mitigation purchases associated with development occurring elsewhere in Westford and Chittenden County. Off-site mitigation should be allowed for subdivisions or developments that are eligible for a density bonus under the Westford Unified Development Regulations. These include developments that provide diverse housing options (elderly housing, affordable housing, units meeting universal design standards, and/or units with less than 1,200 square feet of living space); or developments in which at least 80% of the land area will be permanently conserved through a conservation easement held by an appropriate public or non-profit entity; or developments that provide a suitable site for a community wastewater that could reasonably serve development in the Common or Village District; or developments that provide public trail access and/or recreation areas; or developments that allow for vehicular connectivity by constructing a private road that will connect to adjacent property in the future.

8.4.10 Geological Features

Westford's landscape can best be described as Vermont hill country. Rounded hills, generally ranging from 1000-1200 feet in elevation, are scattered throughout the town. Stewart Hill, elevation 1600 feet, is the highest hill in Westford. The north-flowing Browns River is the major water feature in town, feeding into the Lamoille River that drains into Lake Champlain. The Browns River and its tributaries drain almost the entire town. Unlike other areas of Vermont, the stream valleys in Westford and adjacent Essex are relatively broad with gentle gradients.

Westford shares similar bedrock geology with many other Vermont towns, especially those located in the northern Green Mountains and adjacent foothills. A small arm of the Champlain Valley's limestone belt reaches into Westford just east of Bowman corners. Limestone is made up of calcium which is an essential nutrient for plant growth, such that natural communities above limestone belts are often more biologically diverse. Underlain by quartzite and dolomite bedrock, this limey area encompasses Bald Hill and the hill immediately south. Non-calcareous schist and greywackes are the dominant bedrock types.

Topography

Westford's ponds, hillsides, woodlands, streams, wetlands and scenic views are important elements of the quality of life for residents, other property owners, and visitors. Some of the topography is characterized by steep slopes which require special consideration with respect to planning and development. The nature of the soils on steep slopes in the Town is such that the land is exceptionally vulnerable to erosion and associated problems. Therefore, in order to protect the public health, safety and welfare of individual landowners and owners of abutting property, as well as to preserve the character of the natural resources and natural features that make Westford unique, this section is intended to guide the use of steeply sloping land within Town.

Development on or through areas with steep slopes poses a unique set of challenges:

1. To avoid undue or adverse impact to streams, ponds and groundwater from the consequences of construction, erosion, storm-water runoff, of effluent from improperly sited or designed sewage disposal systems;
2. To preserve the natural topography, drainage patterns, vegetative cover, scenic views and wildlife habitat;
3. To protect property from damage caused by erosion and landslide damage.
4. To protect unique natural areas; and
5. To provide reasonable access to properties for fire, public safety, or other emergency crews.

Westford's topography poses some development constraints with regard to the ability to construct buildings and associated infrastructure on steep slopes. On-site waste disposal systems require relatively flat or rolling areas to function properly. Slopes greater than 15% are generally unsuitable for waste disposal systems. In addition, many of the soils found in steep slopes are unsuitable for waste disposal. Refer to Town Plan Map 3 and 4.

For these purposes, all areas within the Town with Steep Slopes with a grade 25% or greater shall not be developed for roads, driveways, structures, utilities, or wastewater disposal systems, except

a onetime 1,000 square foot exception may be made to allow for reasonable development on or access to a site. Refer to Town Plan Map 3. Note that Town Plan Map does not depict all Steep Slopes in Town and unmapped Steep Slopes are regulated under the Zoning and Subdivision Regulations.

Soils

The soils of Westford are typical of Vermont hill country. Glacial till covers most of the hills in town, separated only by the river corridor in approximate geographic middle of Town. The soils produced from the till are loamy in texture, often rocky and moderately well-drained to excessively well-drained. Except for the limey area west of Bowman Corners, these till soils tend to be acidic. The valleys, particularly those with elevations of 500 feet or less, have heavy soils derived from lake bottom sediments laid down by glacial Lake Champlain.

View Sheds & Ridgelines

While a detailed inventory of Westford's scenic resources has not been conducted, most residents agree there are many exceptional views. Spectacular views of Mt. Mansfield are visible on the east side of Woods Hollow Road. Along Rt. 128 there are views of the Browns River valley floor, Mount Mansfield, and the open spaces which characterize this area. Sweeping views of open spaces appear along the north side of the Cambridge Road. The beautiful scenery in Westford contributes to both the quality of life and the rural character that resident's value. In particular, ridgelines were identified as key natural resources by the Town in the 2009 community survey. It requires further definition by the Town to determine what qualifies as a ridgeline. Wind energy development should be taken into consideration when developing policy, taking into account that most wind energy projects need to be sited on higher elevations such as ridgelines. Whenever possible, development shall be sited in such a way as to preserve views that are important to Westford residents.

8.4.11 Water Resources

Surface Waters

Surface waters include any body of water with a defined channel or depression or that exists throughout the year on the land surface; these typically include rivers, streams, ponds and lakes. They are important as a source of drinking water for humans and wildlife, recreation, flood control, and for aesthetic value. The Browns River is the water feature that dominates Westford, traversing the Town from south to north. There are many smaller streams in Town, most of which empty into the Browns River or one of the many wetlands in Westford. There are several small ponds in Westford, but there is no official public access to any of these ponds. There is public access to the Browns River near the Town Common for fire department use. Residents would like a more recreation-oriented public access to the river.

Vernal Pools

Vernal pools are small wetlands characterized by a lack of vegetation (though they may support some herbaceous wetland species) resulting from the persistence of standing water for a portion of the year. Vernal pools typically occur in small depressions in upland forests over a relatively impermeable substrate layer, but they also may be found in the depressions of some forested swamps. Although pools often lack woody vegetation, they are typically well shaded by the

surrounding forest canopy. In the Northeast, many vernal pools start filling with the fall rains, retain water, ice, and snow through the winter, and collect more water with spring rains and snowmelt. They may also be influenced by rising groundwater in the fall and spring. The pools typically lack inlets and outlets, with the possible exception of outflow following heavy spring rains. A pool may be dry by mid-summer or may retain its water throughout the year in some wet years.

Vernal, or temporary, pools are perhaps best known as important breeding habitat for amphibians. Typical Vermont species that rely on vernal pools for reproduction include the mole salamanders (Spotted salamander, Blue-spotted salamander, and Jefferson salamander), and wood frog. All of these species may breed in other wetlands, including artificial pools and ponds, but rely heavily on vernal pools to maintain their populations since they are free from predator species present in perennial waterbodies. For vernal pools to be effective breeding habitats for amphibian populations, they must retain water for at least two months during the spring and summer breeding season in most years so that amphibians can complete their larval stage. The periodic drying of a vernal pool excludes populations of predatory fish and diving beetles that prey on amphibian larvae. Other animals use pools as well, such as fairy shrimp, fingernail clams, snails, eastern newts, green frogs, American toads, spring peepers, and a diversity of aquatic insects. Fairy shrimp are thought to be restricted to these temporary pools. The amphibians and invertebrates found in vernal pools constitute a rich source of food for various species of birds, mammals, and reptiles that may be attracted to the pools. Wood ducks, mallards, black ducks, and great blue herons are occasionally known to feed at these pools. Despite their small size and temporary nature, vernal pools are highly productive ecosystems.

Vernal pools and the organisms that depend on them are threatened by activities that alter pool hydrology and substrate, as well as by significant alteration of the surrounding forest. Construction of roads and other development in the upland forests around vernal pools can result in negatively affecting salamander migration and in mortality (Forman, et al., 2003). Timber harvesting can have significant effects on vernal pools, including alteration of the vernal pool depression, changes in the amount of sunlight, leaf fall, and coarse woody debris in the pool, and disruption of amphibian migration routes by the creation of deep ruts. Even when the pool is dry, alteration of the depression substrate may affect its ability to hold water and may disrupt the eggs and other drought-resistant stages of invertebrate life that form the base of the vernal pool food chain. Source: VT Dept. of Fish & Wildlife, 2014

Westford contains innumerable vernal pools and currently does not consider them in planning and zoning, but should investigate how to best protect these resources such as by encouraging silviculture to adhere to AMPs that avoid direct impacts to vernal pools.

Wetlands

Wetlands serve a wide range of functions and are beneficial to a variety of native plant and animal species, as well as to the health, safety, and welfare of the general public. Wetlands provide fish and wildlife habitat, flood and erosion protection, nutrient and pollution filtration, groundwater recharge, aesthetic diversity, and sites for educational and recreational activities.

It is estimated that less than 5% of Vermont is currently wetland and that nearly 50% of Vermont's historic wetland area has been lost or severely impaired due to draining, dredging, filling, or excavation activities associated with industrial, residential, and agricultural activities.

Wildlife functions associated with wetlands in Vermont are some of the most diverse and sensitive. Vermont's wetlands support a myriad of waterfowl, wading birds, wetland-dependent furbearers, black bears, moose, amphibians, pitcher plants - the list goes on and on. These species all rely, in whole or in part, on wetland ecosystems for their survival.

Fish and wildlife that depend on wetlands for their survival tend to be easily disturbed or negatively affected by human activities. Residential development, for instance, close to a marsh that supports wading birds such as herons and bitterns is incompatible. Domestic activities normally associated with residential development can cause disturbance, temporary displacement, or complete abandonment of the wetland by a variety of sensitive wetland-dependent wildlife. Source: VT Dept. of Fish & Wildlife, 2014

Wetlands are scattered throughout the Town of Westford and are currently protected by a 50 foot State buffer and a 100 foot Town buffer. The Town will continue to support preservation of wetlands and wetland functions by enforcing its Water Resource Overlay District. Refer to Town Plan Map 5.

Riparian Areas

Riparian areas are ecosystems comprised of streams, rivers, lakes, wetlands, and floodplains that form a complex and interrelated hydrological system. These ecosystems extend up and down streams and along lakeshores, and include all land that is directly affected by surface water (Verry et al., 2000). Riparian ecosystems are unique in their high biological diversity. They are characterized by frequent disturbances related to inundation, transport of sediments, and the abrasive and erosive forces of water and ice movement that, in turn, create habitat complexity and variability, resulting in ecologically diverse communities.

Because of the dynamic nature of rivers, streams, lakes, and ponds, riparian areas have a wide variety of plant and animal communities. These communities form an interconnected food web that ranges from tiny microorganisms to bears and humans. This web also includes reptiles and amphibians, plants, waterfowl, songbirds, bats, mink, and otter. Healthy riparian ecosystems give life to all the species that inhabit them, as well as the species that use the lakes and streams near them, including those species that use bodies of water only at certain times during their life cycles, such as during breeding or migration. Due to climate change, maintenance of riparian buffers is the single most important action we can take to allow for flood resiliency, animal movement (species adjusting ranges), and water quality.

Riparian areas are important not only for the plants and animals that inhabit them, but also for what they provide to the waters near them. The downed wood, leaves, and similar organic material that riparian areas contribute to aquatic systems are important components of the food base and habitat structure in Vermont's water bodies. Mature trees in riparian areas also shade aquatic habitats, which helps to reduce water temperatures. Riparian vegetation is crucial in filtering overland runoff, thus protecting water quality; and in stabilizing stream banks, thus preventing excessive stream-bank erosion and sediment buildup in aquatic habitats.

These ecosystems protect our water quality for drinking and recreation, protect our investments from flood and ice flow damage, and provide for our recreation, education, spiritual wellbeing, and sense of place. Conserving riparian areas is important to:

1. Water quality and aquatic habitat;
2. Terrestrial wildlife habitat for species that depend on riparian environments;
3. Significant natural communities and species;
4. Wildlife corridors;
5. Erosion control;
6. Stormwater control;
7. Floodwater resiliency; and
8. Protecting channel-forming processes and channel stability.

Despite the numerous functions and values of riparian areas, an estimated 70% to 90% of natural riparian vegetation, vital to maintaining the integrity of riparian ecosystems and biodiversity, has already been lost or is degraded due to human activities nationwide. In Vermont, many of our rivers, streams, lakes, and wetlands no longer have functioning riparian areas due to more than 200 years of intensive human use of the land. Planning for and implementing strategies that will conserve or provide long-term stewardship for these vital habitats will slow this trend toward environmental degradation and restore the rich biodiversity associated with these areas. Therefore, the Town will support the preservation and conservation of riparian areas by continuing to enforce its Water Resource Overlay District, which maintains a 50 or 100 foot vegetation buffer along waterways. For more information refer to Section 10 of the Town Plan and Town Plan Map 5
Source: VT Dept. of Fish & Wildlife, 2014

Flood Hazard Areas

Floodplains are those areas adjacent to rivers that are likely to experience flooding during heavy rainfall. A Flood Hazard Area (a.k.a. 100 year floodplain) has a one percent probability of flooding in any given year. Floodplains are a natural part of most water systems, which shall not be developed due to the inherent risk to life and property. Floodplains are mapped by the Federal Emergency Management Agency (FEMA), which administers the National Flood Insurance Program (NFIP). On January 1, 2010, Westford was accepted into the Regular National Flood Insurance Program. For more information refer to Section 10 of the Town Plan and Town Plan Map 5.

Fluvial Erosion Hazard Areas

A Fluvial Erosion Hazard area is subject to fluvial erosion hazards from gradual stream bank erosion to catastrophic channel enlargement, bank failure, and change in course, due to naturally occurring stream channel adjustments, and has been identified and mapped in accordance with accepted state fluvial geomorphic assessment and mapping protocols.

An FEH area includes the stream and the land adjacent to the stream. It identifies the area where stream processes can occur to enable the river to re-establish and maintain stable conditions over time. The area boundaries also attempt to capture the lands most vulnerable to fluvial erosion in

the near term, as well as the area needed by a river to maintain equilibrium. For more information refer to Section 10 of the Town Plan and Town Plan Map 5.

Groundwater

Adequate and pure groundwater supplies are essential to most communities in Vermont. This is particularly true in Westford where virtually all water is taken from groundwater sources. The areas where water most easily percolates through the soils are called recharge areas, because they help to recharge the groundwater supply. These areas are characterized by exposed bedrock and soils with large particles (loamy soils). Recharge areas are susceptible to groundwater contamination and uses in these areas shall be carefully considered. For instance, underground storage tanks and landfills shall be prohibited from these areas. In Westford, some gravel recharge areas are located generally in the north-central area, between the Huntley and Cambridge Roads, and along the lower section of the Browns River. With that said, recharge areas for individual wells can only be determined on a case-by-case basis.

Vermont has defined community water systems (PCWS) as those that serve at least fifteen (15) service connections used by year-round residents or regularly serve at least 25 year round residents. Incompatible uses shall be prohibited within the boundaries of community water protection areas.

Care must be taken to ensure that growth and development does not cause groundwater contamination of both individual private wells and public water supplies, which could endanger the health and safety of present and future Westford residents. The proper siting of development, with particular regard to the quality and location of waste disposal systems will help ensure that the quality of Westford's groundwater remains high.

8.5 Natural Resources & Features Goals & Objectives

1. Significant Natural Resources

Preserve, conserve, and provide stewardship of parcels which contain, or are part of, significant natural resources as identified herein.

2. Contiguous Forest

Preserve, conserve, and provide stewardship for existing patches of contiguous forest within Town.

3. Wildlife Corridors

Ensure that animals and plants are able to move freely between conserved lands, undeveloped private lands, contiguous forest habitat, and other important habitats, land features, and natural communities in order to meet all their necessary survival requirements.

4. Working Lands

Ensure the viability of working lands.

5. Significant Natural Communities

Preserve, conserve, and provide stewardship of *significant* natural communities found within the town or area of interest.

6. Water Resources

Preserve, conserve and provide stewardship of existing high quality aquatic features and riparian habitats throughout the Town.

7. Uncommon, Rare, Threatened & Endangered Species

Preserve, conserve and provide stewardship of habitats and natural communities that support uncommon, rare, threatened, and endangered species.

8. Deer Wintering Habitat

Maintain and protect the functional integrity of all deer wintering areas within the town.

9. Mast Stands

Maintain and protect the functional integrity of all mast stands in the town.

10. Grasslands & Bird Habitat

Where appropriate, encourage management of existing grasslands, including artificial habitats, larger than five acres in a manner compatible with successful grassland bird nesting. Identify and maintain or increase populations of rare grassland birds in the town.

11. View Sheds & Ridgeline

Preserve view sheds and ridgelines while allowing for reasonable development near view shed and the development of renewable natural resource along ridgelines.

12. Green” Development

Incurion of development into natural resources and natural features should take place under environmentally responsible and sustainable design and methods. Green practices shall be encouraged throughout the development cycle.

13. Conservation Commission

The Westford Conservation Commission should partner with citizens to create a vibrant, sustainable environment where land uses, including agriculture, silviculture, recreation, and development coexist in harmony with natural resources.

9 GREENWAYS AND TRAILS

9.1 Policy

It is the policy of the Town of Westford to sustain the existing public trail system and promote its expansion for use by the public for recreational purposes and as an alternative to more common transportation options.

9.2 Inventory & Discussion

The popularity of greenways and recreational trails is growing in Vermont. These are corridors on which motorized travel is restricted and recreational uses, such as walking, skiing, horseback riding, running, and bicycling are encouraged.

Recreational trails are often located along river corridors, on Class 4 roads, public trails, private trails, and abandoned logging and farm roads. In cases where private property is involved, recreation or conservation easements must be arranged with the owners.

Westford currently has several public trails in town as indicated in Town Plan Map 7. Previous county-level greenways plans suggested a conservation greenway running along the entire length of the Browns River and connecting with Essex to the south. An initial project along these lines would be to establish a greenway or recreation path extending from the elementary school to the Town Center area, along the Browns River. The Conservation Commission has developed a potential trail system map depicting future trail connections. Town boards should work with land owners with the goal of creating a town-wide public trail system.

Communities in which greenways have been implemented (e.g., Burlington & Stowe Bike Paths) have had positive experiences and find that these community amenities attract local residents and visitors alike. After initial skepticism, adjacent property owners report that greenways are a pleasant amenity and a desirable community asset.

9.3 Greenways & Trails Goals & Objectives

1. **Access Nature** - Foster the development of public trails, greenways, and access to natural areas.

10 FUTURE LAND USE

10.1 Policy

It is a policy of the Town of Westford to provide a variety of land uses in Westford, including residential, small scale commercial, small scale industrial, home occupations, silviculture, agriculture, conservation, and municipal uses. These and other uses are allowed in those areas of Westford in which they are historically, aesthetically, environmentally, and economically appropriate.

10.2 Inventory & Discussion

Land use area categories were introduced in Westford in the early 1970's in the Westford Town Plan. The Town was divided into four categories: Rural/Agricultural, Conservation, Flood Plain and Open Space. In 1975, the Flood Plain classification was dropped. In 1980, the Plan was revised and major changes in land use areas were made. A residential area was designated for residential growth in the northwest corner of Town, a large part of the Conservation District was changed to the Forestry District, the Flood Plain area was reintroduced as the Wetland District, and the Town Center District appeared. The remainder of the Town was reclassified as the Agricultural, Forestry, and Residential District. In 1982, a second area in the north central section of the Town was designated for residential growth. In 1987, the lands surrounding the four paved roads in Town that were classified as Agricultural, Forestry, and Residential were added to a new land use area called Agricultural, Forestry, and Residential 2 District. This was in response to a citizen's survey calling for greater development along the paved roads.

An examination of recent housing construction in Westford provides a picture of how the land classifications in Westford have affected patterns of residential development. The Rural Residential District has seen the most intense development in the entire town. This is a reflection of the relatively low minimum lot size in the area and the presence of soils easily suited for septic systems.

In 2009, the Town re-districted the Town Center District into three new zoning districts each with a specific set of zoning regulations and standards. This was undertaken in the hopes that the new regulations would foster residential and commercial development around the Town Common Area while maintaining the historic Village character.

Housing development overall in the town has been considerably slower in the last two decades than in the 1980s. However, the cumulative effect of this development is to gradually change the nature of Westford from a rural community to one exhibiting some of the qualities of suburban communities.

Over the years, Westford residents have made it clear to the Planning Commission that the Town is slowly losing some of its rural character. Residents have requested that the Planning Commission take the necessary planning steps to continue to allow new residential and commercial development, but that it is channeled in such a manner as to preserve Westford's rural character.

Commercial growth has been very limited in Westford. Small businesses are scattered throughout the entire town at random and are generally linked with residential uses.

In light of this history of town planning, the following sections describe land use areas and steps to be taken to implement this plan. These have evolved from discussion by the Planning Commission and the responses from the 2009 community survey.

10.3 General Land Use Goals & Objectives

1. **Preserve Cultural & Historical Resources** - Westford shall encourage and implement techniques that preserve the rural, historical, and cultural resources which give the Town its identity.
2. **Preserve Rural Character** - The primary goal of the 2015 Town Plan is the preservation of the rural character of Westford.
3. **Preserve Working Landscapes** – Westford shall encourage and implement techniques that preserve the working landscape (e.g. agriculture and silviculture).
4. **Preserve Natural Resources** – Westford shall encourage and implement techniques to preserve and protect significant natural resources.

10.4 Town Center Areas

Westford's Town Center Area occupies the same general geographic location as the historic Village of Westford, and as such it is the primary location of cultural activities and most public and municipal buildings. This area is intended to have the highest density and the widest variety of uses in Town. In 1995, the Town Center Area was increased based on the desire to reinvigorate the Town Center. However, it has become apparent that the historic center will not see significant re-development until new methods of wastewater disposal are developed. Due to a host of reasons, not the least of which are cost and the lack of State and Federal funding, it is unlikely that a centralized system could be developed in the near future. However, the Town has been investigating the feasibility of fostering the development of community wastewater systems within the Town Center Area, which could be an innovative solution to the Town Center Area's wastewater needs.

In 2009, the Town re-districted the Town Center area into three districts (Town Common District, Town Village District & Town Center District). The Town Common District is an area immediately surrounding the Common. The minimum lot size was reduced to ½ acre from 1 acre. This district is the Town's high density, high traffic residential and commercial area. The Town Village District is the area immediately surrounding the Town Common District. The minimum lot size was reduced to ½ acre from 1 acre. This district is the Town's high density, low traffic residential and commercial area. The Town Center District encompasses the outer reaches of the former Town Center District. This area continues to have a minimum lot size of 1 acre. However, the uses have been reduced to being residential in nature. The Planning Commission will continue to follow any trends that occur in the re-development of small community centers. In the event that services such as sewer and

water are available in the Town Center area; uses, density, and the boundary lines should be adjusted accordingly.

In 2010 the Town received Village Center Designation from the State of Vermont Department of Housing and Community Development. The Designated Village Center encompassed the area immediately surrounding the Town Common.

The goals of this designation are as follows:

1. Support historic downtowns and villages by providing funding, training, and resources to communities designated under this chapter, to revitalize such communities, to increase and diversify economic development activities, to improve the efficient use of public investments, including water and sewer systems, and to safeguard working landscapes;
2. Improve the ability of Vermont's historic downtowns and villages to attract residents and businesses by enhancing their livability and unique sense of place; expanding access to employment, housing, education and schools, services, public facilities, and other basic needs; and expanding businesses' access to markets;
3. Coordinate policies and leverage funding to support historic downtowns and villages by removing barriers to collaboration among local downtown organizations, municipal departments, local businesses, and local nonprofit organizations and increasing accountability and effectiveness at all levels of government to revitalize communities and plan for future growth;
4. Promote healthy, safe, and walkable downtown and village neighborhoods for people of all ages and incomes by increasing investments in those locations; providing energy efficient housing that is closer to jobs, services, health care, stores, entertainment, and schools; and reducing the combined cost of housing and transportation;
5. Encourage investment in mixed use development and provide for diverse housing options within walking distance of historic downtowns and villages that reinforce Vermont's traditional settlement patterns and meet the needs of community members of all social and economic groups;
6. Develop safe, reliable, and economical transportation options in historic downtowns and villages to decrease household transportation costs, promote energy independence, improve air quality, reduce greenhouse gas emissions, and promote public health; and
7. Reflect Vermont's traditional settlement patterns, and to minimize or avoid strip development or other unplanned development throughout the countryside on quality farmland or important natural and cultural landscapes.

The Town has been working towards these goals by implementing traffic calming, pedestrian safety and beautification techniques in the area, including but not limited to planting street trees,

constructing safe and accessible parking areas serving community facilities, conducting community wastewater capacity studies, construction of a park and ride facility, development of form based zoning bylaws to tie new development to the historic character of the Town Center Area while encouraging and incentivizing mixed uses, energy efficiency, and affordable housing options. Furthermore, the Town is currently and will continue to pursue these goals by: installing additional traffic calming and beautification techniques, increasing civil and recreational opportunities for all ages, constructing sidewalks and curbing to connect community facilities, making all community facilities ADA accessible, constructing a path from the Town Common to School and Post Office, implementing public transportation and/or a carpooling programs and implementing form based zoning. The latter will include a new zoning map, transect map, and conceptual master plan for the Town Common Area. These strategies and more will be carried out through grant awards, fundraising, donations, and volunteerism in addition to the Town budget.

The benefits of this designation include gaining priority with regard to grant applications geared towards implementing the goals of designated villages. Furthermore, this designation benefits owners of non-residential structures located in the designated village by offering tax credits for upgrades to historic buildings.

10.5 Town Center Areas Goals & Objectives

1. **Community Life & the Common** - Utilize the Town Common Area as the focal point of community life and activity in Westford.
2. **Pedestrian Safety & Traffic Calming** – Implement pedestrian safety and traffic calming techniques in the Town Center Area.
3. **Community Infrastructure** - Expand Westford's role in providing infrastructure so that higher density development can occur in the Town Center Area.
4. **Encourage Re-Development** - Encourage appropriate development intensity in the Town Center area that is great enough to reinforce its traditional Town Center functions and character while not degrading the social and physical environment.

10.6 Form Based Zoning Overlay Area

The Form Based Zoning Overlay Area (FBO) is proposed as a future overlay district. The purpose of this overlay would be to implement the goals, objectives and planning strategies outlined in the Town Center Area section above. The overlay would be applied to the entire Town Center Area.

10.7 Form Based Zoning Overlay Goals & Objectives

1. **Revitalize Town Center Area** - Create a town center, which has a diversity of uses, is the center of community life and actively contains affordable housing options, is pedestrian friendly, and provides the residents with essential community resources.

2. **Promote Historical, Cultural & Architectural Character** - Preserve and promote the historical, cultural and architectural character of the Town Center Area.

10.8 Rural Residential Area

The primary purpose of the Rural Residential area, located northeast of the Town Center area surrounding the Plains Road, is to provide for residential development. The density in this area is 3 acres per dwelling units. However, Planned Unit Developments are required to facilitate the conservation of Westford's rural character while allowing landowners the ability to develop their property. This feature enables the Development Review Board to exercise flexibility when reviewing development proposals so important rural aspects (e.g., agricultural, silviculture, open space, significant natural resources, etc.) can be conserved. This district is extremely close to being "built-out", or unable to sustain further subdivision.

10.9 Agricultural, Forestry Residential 2 Area

The Agriculture, Forestry and Residential 2 area (AFR2) is comprised of lands adjacent to paved roadways (e.g. VT Route 128, VT Route 15 and Westford-Milton Road). These roadways are the primary travel corridors for many residents. The land is characterized by open spaces with a good potential for agricultural uses. This area, although having development and use limitations due to its poor soils and proximity to the Browns River, is well suited for small scale nonresidential development. However, any development should preserve Westford's historic rural character by way of considering/regulating access management, site design, building design, and the impacts to adjoining residential properties owners and significant natural resources. Density in the AFR2 district is 1 dwelling per 5 acres.

10.10 Agricultural, Forestry Residential 2 Area Goals & Objectives

1. **Commercial Access & Development** - Focus small scale commercial development along paved roads, if it is in keeping with the historical rural character of Westford (open space, working lands, and viewsheds) and does not create strip development.
2. **Residential Access & Development** – Preserve open space, working land, and viewsheds by requiring that new housing developments be sited so as to protect these natural resources and by minimizing access and roadways serving said developments in so far as possible and safe.

10.11 Agricultural, Forestry Residential 1 Area

The Agriculture, Forestry and Residential 1 area (AFR1) is the largest portion of land in the Town (approx. 80%). The area is characterized by land with good potential for agriculture and forestry uses. Furthermore, it houses the majority of the Town's significant natural resources. This area has severe limitations to its use and development due to steep and hilly terrain, lack of access, and poor soils. Density in the AFRI district is 1 dwelling per 10 acres.

10.12 Agricultural, Forestry Residential 1 Area Goals & Objectives

1. **Natural Resource & Working Land Protection** - Protect significant natural resources and working lands while allowing property owners to develop their property reasonably.

10.13 Forestry Area

The Forestry (F) is proposed as a future land use district. The land under investigation is comprised of Steep Slopes, mountain tops and ridges, woodlands, water resources, floodwater attenuation, and significant natural resources. Due to severe development limitations, such as lack of access and/or safe access, poor soils, erosion, stormwater concerns, and Steep Slopes, this area is in a largely undisturbed and natural condition. The proposed district is characterized as containing land with potential for forestry, agricultural, recreational, and educational opportunities and significant natural resources. The purpose of this area is to conserve working lands, significant natural resources, wildlife habitats, corridors and biodiversity, preserve undeveloped corridors of local and regional significance, and limit development where the land is not conducive to development and/or would strain the Town's ability to provide services. Refer to Town Plan Map 3 and 10.

10.14 Forestry Area Goals & Objectives

1. **Working Lands** – Ensure undeveloped, productive forest lands are conserved for current and future generations.
2. **Significant Natural Resource** - Preserve and protect significant natural resources and ensure they are conserved to the fullest extent.
3. **Biodiversity** – Preserve and protect flora and fauna to promote healthy and sustainable natural functions locally and regionally.
4. **Contiguous Forest** – Preserve and protect large contiguous areas of open land to ensure healthy populations of flora and fauna.
5. **Corridors** - Maintain undeveloped natural corridors along public trails.
6. **View Sheds** – Preserve scenic view sheds in so far as possible.
7. **Floodwater Attenuation** – Conserve upland areas to increase and/or maintain current levels of floodwater attenuation.

10.15 Water Resource Overlay Area

Wetlands, rivers, streams, ponds, and source water protection areas are susceptible to the effects of construction, development, and other incompatible uses.

The public's health, safety, and welfare is served by the protection of these necessary resources. Therefore, degradation and contamination of Westford's water resources is to be avoided. Due to the fact that these resources are not located in one geographic area of Westford, the overlay concept has been adopted to provide the protection needed.

The Water Resources Overlay Area applies to all water resources depicted on Town Plan Map 5 and supersedes underlying zoning provisions if conflict between district standards exists. Flexibility in siting uses will be required by the Development Review Board and landowners to implement the Water Resources Overlay Area. The boundaries of the Water Resources Overlay Area do not appear on the Current Zoning map (Town Plan Map 8) due to the complexity of the district. However, the district is depicted on Town Plan Map 5.

10.16 Water Resources Overlay Area Goals & Objectives

1. **General** -ensure that the quality of Westford's important water-related resources , including wetlands, rivers, streams, ponds and source water protection areas are protected and protect the public health by minimizing the adverse impacts of development, pollution, and disturbance on Westford's water related resources and adjacent lands.
2. **Water Quality** – Reduce point and non-point source pollution to maintain water quality for human use, human consumption, and species health and survival.
3. **Biodiversity & Habitat** – Ensure riparian buffers and waterways are maintained in a manner that provide basic and necessary survival requirements to species, such as food, shelter, travel ways and appropriate water temperatures/oxygen loads, for aquatic, avian, and terrestrial species.
4. **Erosion & Sedimentation** – Ensure riparian buffers provide thick, natural vegetation along banks to bind and trap soil particles together reducing sedimentation, reduce stream bank erosion and limit river meandering.
5. **Stream Equilibrium** - Preserve and promote natural systems/function to allow for stream equilibrium.
6. **Flood Resiliency & Stormwater Attenuation** – Ensure riparian buffers provide thick, natural vegetation to absorb and slow run off, to maximize floodwater attenuation in upland areas, and reduce flood severity.

10.17 Flood Hazard Overlay Area

State and Federally mapped Flood Hazard Overlay (FHO) areas are unsuitable for development due to the certainty of flooding. Therefore, to protect public health, safety, and welfare, development and increase flood resiliency in this area shall be severely limited.

The Flood Hazard Overlay encompasses the FEMA delineated floodway and 100 year floodplain. More specifically, the FHO encompasses the floodplains associated with the Browns River, Morgan Brook, Beaver Brook and a handful of large, class 2 wetlands. The Town strongly believes these high at risk areas are not suitable for development and/or changes in grade (e.g. fill, excavation and/or grading) and does not permit land development in the FHO, unless necessary for essential services, water dependent uses (such as dry hydrants) and/or to access landlocked parcels. Therefore, the Town's regulations exceed the federal minimum standards for this area. Currently, there is one abandoned accessory structure located in the FHO in Westford

The Town has an All Hazard Mitigation Plan, which was prepared in conjunction with the Chittenden County Regional Planning Commission, and a Local Emergency Operations Plan, which is supposed to provide a directive for emergency planning and response. Westford participates in the National Flood Insurance Program. The National Flood Insurance Program (NFIP) is a voluntary program that provides federally-subsidized flood insurance to participating communities. Residents of participating communities are then able to purchase NFIP flood insurance to protect their buildings and possessions. Flood insurance rates are based on Flood Insurance Rate Maps (FIRMs), which delineate areas of the floodplain likely to be inundated during a flood. The Town actively works with residents owning property and/or infrastructure near the FHO and actively educate residents on the FHO and emergency preparedness, resources, and response. In 2013 the Town adopted the State's Road and Bridge Standards, especially given the significant and devastating flooding seen recently in Town. Over the past few years the Town has seen significant damages to transportation infrastructure and roadways during large storm events. Specifically, the Seymour Road culverts through Beaver Brook washed out in 2013, requiring construction of a new bridge, and Machia Hill Road washed out in 2012, requiring significant and costly repairs.

The Flood Hazard Overlay area will supersede underlying zoning provisions if conflict between district standards exists. Flexibility in siting uses will be required by the Administrative Officer, Development Review Board, and landowners to implement the Flood Hazard Overlay area. The boundaries of the Flood Hazard Overlay Area do not appear on the Current Zoning map (Town Plan Map 8) due to the complexity of the district. However, the district is depicted on Town Plan Map 5.

For additional information on this topic go to <http://floodready.vermont.gov/>

10.18 Flood Hazard Overlay Area Goals & Objectives

1. **Protect Human Health, Safety & Welfare** - To prevent the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding and other flood related hazards;
2. **Minimize Flood Damage** - To ensure that the design and construction of development minimizes the potential for flood loss or damage to life and property;

3. **Preservation of Natural Systems** - To encourage Flood Hazard areas to be kept in their natural state;
4. **Effective & Efficient Management** - Manage all Flood Hazard areas to ensure public and private property and human life are protected to the fullest extent from the effects and dangers of flooding.
5. **Effective & Efficient Financial Disaster Assistance** - To make the State, municipality, and residents eligible for federal flood insurance and other federal disaster recovery and hazard mitigation funds;

10.19 Fluvial Erosion Hazard Area

The Vermont ANR River Management Program has developed an additional program to supplement the NFIP called the Fluvial Erosion Hazard Program. The FEH program maps a river corridor specially tailored to protect against the predominant form of flood damage in Vermont— fluvial erosion. Based on studies of each stream’s geomorphic (or physical) condition and inherent sensitivity to erosion

The Fluvial Erosion Hazard Overlay is proposed as a future overlay district. Fluvial (or river-related) erosion hazards (FEH) refer to major streambed and stream bank erosion associated with the often catastrophic physical adjustment of stream channel dimensions (width and depth) and stream channel location that can occur during flooding. Fluvial erosion becomes a hazard when the stream channel that is undergoing adjustment due to its instability from gradual stream bank erosion to catastrophic channel enlargement, bank failure, and change in course, due to naturally occurring stream channel adjustment. This process often times threatens public infrastructure, houses, businesses, and other private investments. While some flood losses are caused by inundation (i.e. waters rise, fill, and damage low-lying structures), most flood losses in Vermont are caused by “fluvial erosion,” Erosion caused by rivers and streams, and can range from gradual bank erosion to catastrophic changes in river channel location and dimension during flood events.

Every river has a probable form, reflecting its complex interaction of many factors, including inputs from its watershed (water, sediment, ice, woody debris) as well as the physiographic setting (geology, soils, vegetation, valley type). There is a balance between watershed inputs (water and sediment), channel characteristics (slope and boundary conditions), and the physical response of a channel either by aggradation (sediment deposition) or degradation (scouring of sediment).

When all the elements are in balance, a river is said to be in “dynamic equilibrium.” A river in equilibrium can carry its load of water, sediment, and debris, even during high flows, without dramatic changes in the width, depth, or length (slope). A dramatic change in any of these elements will tilt the balance and lead to changes (or adjustment) as a river attempts to move back toward an equilibrium condition. This adjustment is often expressed as fluvial erosion, or major changes in channel dimension and location, as a river attempts to regain equilibrium.

One common mode of channel adjustment seen throughout Vermont is the response of a river to straightening. When a river is straightened, the slope of the channel is increased. As a result, the river has more power and a greater ability to carry sediment, and begins to incise, eroding the stream bed. The incision leads to a situation where the river becomes disconnected from its floodplain. Without floodplain access, which serves the essential purposes of slowing floodwaters and storing sediment, stream banks are subjected to the full power of flood flows, leading to extensive fluvial erosion. If left alone, the river will eventually erode its banks enough that it can lengthen its channel, regain a more stable slope, and develop a new floodplain at a lower elevation.

An FEH area includes the stream and the land adjacent to the stream. It identifies the area where stream processes can occur to enable the river to re-establish and maintain stable conditions over time. The area boundaries also attempt to capture the lands most vulnerable to fluvial erosion in the near term, as well as the area needed by a river to maintain equilibrium. The map also provides a valuable insight into the location and nature of fluvial erosion hazards, and can be used to support many effective mitigation options. For more information refer to Section 11 of the Town Plan and Town Plan Map 5.

The FEH has been identified and mapped for the Town of Westford in accordance with accepted state fluvial geomorphic assessment and mapping protocols. The vast majority of the FEH is already encompassed within the WRO and FHO, which are highly restrictive and prohibit most if not all types of development. The FEH is depicted on Town Plan Map 5.

10.20 Fluvial Erosion Hazard Area Goals & Objectives

1. **Protect Human Health, Safety & Welfare** - To prevent the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding and other flood related hazards.
2. **Minimize Flood/Erosion Damage** - To ensure that the design and construction of development minimizes the potential for flood and other flood related loss or damage to life and property.
3. **Preservation of Natural Systems** - To encourage Erosion Hazard Areas to be kept in their natural state.
4. **Effective & Efficient Management** - Manage Erosion Hazard Areas to ensure public and private property and human life are protected from the effects and dangers of flooding and other flood related hazards.

11 IMPLEMENTATION PLAN

The tasks listed in the Implementation Plan directly correlate to the goals and objectives identified in each chapter of the Town Plan and outline the expected course of action to be taken to implement those goals and objectives. The following spreadsheet can be reorganize/sorted by chapter, project category, timetable, responsible party and/or project type. Individuals may reorganize/sort the Implementation Plan to fit their needs by visiting <http://westfordvt.us/2015-town-plan/>. The Implementation Plan should be reviewed annually with all Town Officials, Boards, Commissions and Committees in order to develop annual work plans and track progress.

Category:	Chapter:	Task:	Timetable:	Responsible Party:								Project Type:						Completed	
				Planning Commission	Selectboard	Conservation Commission	Energy Committee	Road Committee	Emergency Coordinator	Town Staff	Other	Policy & Ordinances	Land Use & Dev. Regulations	Planning & Studies	Budgeting	Education	Construction		Other
Affordability & Aging	3, 4 & 10	Amend the development fee schedule to support affordable and senior housing.	2015	x	x								x						
Affordability & Aging	3, 4 & 10	Evaluate how the regulations calculate density for different housing types and consider increasing housing density for certain types of development such as affordable and/or multifamily housing in the Town Center Area, Rural Residential District and Agricultural, Forestry & Residential 2 Districts. The evaluation should take into consideration an area's character, effects on municipal services and impacts on significant natural resources.	2015	x	x									x					
Affordability & Aging	3	Encourage greater use of accessory dwellings as a tool for creating additional affordable housing in Westford. Options include, but are not limited to: allowing new accessory dwellings which result in the expansion of the height and floor area of a principal single family dwelling as permitted rather than conditional and/or expand the definition of an accessory dwelling to include multi-bedroom dwellings in addition to one-bedroom /efficiency units.	2015	x	x									x					
Affordability & Aging	3, 7 & 10	Incentivize the development of small dwellings in the regulations by granting density bonuses.	2015	x	x									x					
Affordability & Aging	3, 4 & 10	Support & work with affordable housing developers, neighboring towns and the region to promote cooperative efforts to facilitate the development of senior and affordable housing locally and regionally.	Continuous	x	x														x
Communications	1	Create a relationship with adjoining towns' planning commissions and planners by conducting planning forums.	Annually	x	x	x													x
Communications	4 & 5	Encourage and seek to improve cell coverage for general community use, emergency response, public safety and economic development.	Annually	x	x					x									x

Natural Resources	2, 5 8 & 10	Prohibit big-box or large-scale commercial development which is not in keeping with Westford's rural character.	2015	x	x														
Natural Resources	5, 6, 8, & 10	Develop regulations for residential and commercial development to minimize the number of access permits allowed along the VT Route 128 and 15 corridors, Milton/Westford Road and the paved portion of Old Stage Road and develop more stringent requirements for screening, using berms and vegetation, to help preserve the rural character of these portions of Westford.	2015	x	x														
Natural Resources	4, 6, 8 & 10	Develop low impact development stormwater standards to ensure the quality of water not only in our local waterways but Lake Champlain.	2015	x	x														
Natural Resources	8	Investigate the creation of a local Land Trust.	2015-16			x													
Natural Resources	8 & 10	All properties proposed for development which contain significant natural communities, uncommon species and features, and rare, threatened and endangered species shall perform a natural resource inventory prior to development to ensure protection of these significant natural resources.	2015-16 & Continuous	x	x	x					x (DRB)		x	x	x			x	
Natural Resources	8 & 10	Steer development from prime agricultural soils to marginal soils and/or working lands (e.g. agriculture & silviculture) to non-working lands by requiring developers to build on the least productive portion of parcel and by clustering development in that location.	2015-17	x	x									x	x				
Natural Resources		Develop regulations to preserve and conserve lands containing significant natural resources from development and disturbance.	2015-17	x	x									x	x				
Natural Resources	4, 6, 7, 8, 9 & 10	Investigate with the intent of developing one or more Forestry District(s) with a minimum lot size requirement greater than currently allowed and/or additional planning standards such as conditional use review for development on lots containing or near to significant natural resources.	2015-19	x	x	x								x	x				
Natural Resources	8 & 10	Conduct a natural resource inventory of the Town and create regulations which sufficiently protect significant natural resources (see Natural Resource & Features Section for more information).	2015-19	x	x	x								x	x				

Transportation	4 & 6	Investigate and, if desirable, implement road impact fees to maintain an adequate level of service and ensure new development pays a fair share of costs associated with increased road use resulting from new development.	2016		x						x								
Transportation	4, 6 & 8	Survey residents regarding their interest in public transportation options.	2016	x							x (PCoor)								
Transportation	4, 6 & 8	Investigate alternative public transportation options to bring residents interested in carpooling together, use Essex and Westford Park and Ride with express CCTA busing to large employment centers and a Westford bus stop on the Jeffersonville commuter line.	2016	x							x (PCoor)								
Transportation	4, 6, 8 & 10	Inform residents of the impacts of privately-owned undersized and/or or defective stormwater infrastructure. The Town shall not be held liable for the failure of private infrastructure and/or reporting inadequacies to private land owners.	2017								x (Hwy)								
Transportation	4, 6, 8 & 10	Investigate and apply for funding sources to construct a salted sand and salt storage facility.	Annually								x (Hwy & PCoor)								
Transportation	4, 5, 6 & 8	Implement the projects identified in the 5 Year Road Plan (see 5 Year Road Plan for more information)	Annually		x						x (Hwy)								
Transportation	4, 6, 8 & 10	When economically feasible, upgrade stormwater infrastructure (esp. bridges & culverts) to withstand large storm events.	Annually								x (Hwy)								
Transportation	4, 5, 6, 7, 9 & 10	Investigate and, where feasible, implement a variety of speed and traffic control techniques to ensure the safety of Westford residents on Westford's multi-use (e.g., vehicular, pedestrian, equestrian, biking) road network.	Annually	x	x	x					x (TC, PCoor, Hwy)	x (TCom & TCen)							
Transportation	6, 8 & 10	Maintain an inventory of the road infrastructure (examples; bridge/culvert, flood damage sites, road surface issues, ditches) to determine issues, needs and priorities for road maintenance and other planning considerations.	Annually								x (Hwy)								

