

2018 Wilmington VT Town Plan

Adopted by Wilmington Selectboard October 2, 2018

1

Who We Are



Characteristics of the town, where it is, what the climate is like, what the population trends are, what influences are key to the future?

2

The Town Planning Process



Why a Town Plan? The Purpose it serves. The process that went into developing the plan. How it will come to life to define the town's future.

3

Action Plans



What the town seeks to achieve and how the town will get there. What steps must be taken to achieve these goals.

4

Data & Information



What data is available to tell the story of the community, who the people are, how they live and what they need.



Building a Strong Community

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**TABLE
OF
CONTENTS**

TABLE OF CONTENTS

Page

TABLE OF CONTENTS ----- 2

WHO WE ARE----- 5

THE TOWN PLANNING PROCESS ----- 21

- State Authority for Planning -----21
- Strategic Public Planning -----22
- How the Town Plan is Used -----23
- Interpretation of the Town Plan -----24
- Who is Responsible for Implementing the Town Plan----- 24

ACTION PLANS-----25

- Community Facilities and Services -----26
- Housing -----30
- Economic Development -----31
- Flood Resilience -----33
- Natural Resources ----- 35
- Energy----- 36
- Transportation -----39
- Land Use -----40

DATA & INFORMATION-----41

- Community Facilities and Service -----42
- Population Trends -----47

- Aging -----49
- Other at Risk Populations -----51
- Education -----53
- Housing -----55
- Employment, Income, and the Workforce -----62
- Economic Development -----68
- Wilmington Works Designated Downtown -----71
- Historic Structures -----74
- Public Recreation -----77
- Scenic Resources ----- 81
- Natural Resources ----- 81
- Energy -----91
- Transportation----- 106
- Flood Resilience ----- 126
- Land Use ----- 130
- Land Use Consistency with Adjoining Towns ----- 137
- Map Availability - Maps----- 139
 - o Existing Zoning Districts
 - o Existing Land Use by Parcel
 - o Future Land Use
 - o Community Facilities and Utilities
 - o Natural Resources
 - o Special Resource Areas
 - o Transportation System
 - o Water Resources

FIGURES



- 1. Broadband Service Availability -----44
- 2. Population Trends -----47
- 3. Population Trends Nearby Towns -----47
- 4. Population by Age Group -----48
- 5. Age Distribution of Population (2010 Census) -----49
- 6. Families with Children Under 19 (2010 Census) -----49
- 7. Living Alone Population (2010 Census) -----49
- 8. Age Distribution of Population (2012-2016) -----50
- 9. Families with Children Under 19 (2012-2016) -----50
- 10. Living Alone Population (2012-2016) -----50
- 11. Disabled Population -----52
- 12. Poverty -----52
- 13. . Elementary School Enrollment-----53
- 14 . Middle (6-8) and High (9-12) School Enrollment-----54
- 15. Population vs. Housing Growth -----55
- 16. Housing Permits Issued -----56
- 17. Average New Build Structure Costs -----56
- 18. Types of Housing 2012-2016 -----57

19. Housing Occupied vs. Vacant 2000 vs. 2010-----	58
20. Housing Vacancy by Type of Unit-----	58
21. Owner vs. Renter Occupied Housing Units 2000 vs. 2010-----	58
22. Average Household Size-----	59
23. Household Income 2016-----	59
24. Home Sales 2009 - 2014-----	60
25. Employment by Industry 2016-----	62
26. No. of Businesses and No. of Employees 2004 vs. 2013-----	63
27. No. of Businesses by Type of Business 2004 vs. 2013-----	63
28. Median Family Adjusted Gross Income by Town 1979 - 2009 (Numeric)-----	64
29. Median Family Adjusted Gross Income by Town 1979 – 2009 (Bar Graph)-----	65
30. Size of Workforce-----	66
31. Where Residents Work-----	66
32. Commuting Characteristics-----	67
33. Farms by Size-----	67
33a. Wilmington Designated Downtown Map-----	71
33b. Proposed Designate Downtown Expansion December 2016-----	72
34. Structures Listed on the National or State Register of Historic Places-----	75
35. Hiking Trails Map-----	78
36. Hiking Trails Guide-----	79
37 Wildlife Habitat Suitability Map-----	87
38. Agricultural Soils & Open Lands Map-----	89
39. Energy Type Owners vs. Renters-----	91
40. Annual Energy Costs for Town Facilities and Services FY99 – FY 2014-----	92
41. State of VT Efficiency Targets by Benchmark Years-----	93
42. State of VT Residential Heating Consumption Targets by Benchmark Years-----	94
43. State of VT Commercial Consumption Targets by Benchmark Years-----	95
44. State of VT Light Duty Vehicle Energy Targets by Benchmark Years-----	96
45. State of VT Heavy Duty Vehicle Energy Targets by Benchmark Years-----	97
46. State of VT Total Electricity Consumption Targets by Benchmark Years-----	98
47. State of VT Residential Targets by Type of Energy for Benchmark Years-----	105
48. State of VT Commercial Targets by Type of Energy for Benchmark Years-----	105
49. Distribution of Town and State Roads by Class-----	107
50. National Bridge Inspection / Inventory-----	108
51. Age of Bridges-----	108
52. Town Highway Bridges Map-----	109
53. Culverts by Size, Condition and Material-----	111
54. Culverts by Length Map-----	112
55. Culverts by Condition Map-----	113
56. Culverts with Direct Output to a Stream Map-----	115
57. Traffic Counts-----	117
58. Public Transportation - Moover Ridership-----	119
59. Bike and Pedestrian Counts-----	121
60. Sidewalks Map-----	122
61. Parking Inventory – Public, Private and Restricted Map-----	124
62. Parking Inventory – Number of Spaces-----	124



Transportation

The town is crossed by:

-  Vermont Route 9
-  Vermont Route 100

The Deerfield Valley Transit Association (DVTA) is the primary public local bus transportation provider for Wilmington and the rest of the Deerfield Valley. Their nickname, "the MOOver", derives from their buses' black and white Holstein cow paint scheme and appearance. The closest Greyhound bus stop and Amtrak train station to Wilmington is in Brattleboro.

Tropical Storm Irene

August 28, 2011 - The town of Wilmington, and the state of Vermont, was hit by Tropical Storm Irene. 13 inches of rainfall came through the course of 10 hours, comparable to dumping 26 swimming pools on every acre of land. The rivers flooded over their banks washing away buildings, destroying downtown businesses and inventory, and displacing families from their homes. In terms of infrastructure, Wilmington was the hardest hit town in the entire state. Almost immediately after the storm subsided residents began the work of cleaning up and figuring out how to turn this devastating tragedy into a blessing. Within days the National Guard was repairing washed out roads, businesses were getting cleaned out, and fund raising began to help affected people and businesses to get back on their feet. While there remain empty storefronts and damaged buildings, by the fifth year anniversary in August of 2016 the town was again thriving with many businesses, tourists shopping locally, and new opportunities on the horizon.

Who We Are

Wilmington, VT is a rural town in south central Vermont. The town received its initial land grant charter in 1751 from Benning Wentworth, governor of New Hampshire. From 1777 – 1791 Vermont became an independent Republic encompassing much of New Hampshire and the eastern corridor of upstate New York and Wilmington had a population of approximately 645 people. Primary industries were sheep farming and lumbering operations with logs moved by the river and by train. During its time as an independent Republic Vermont:

- Was the first to outlaw slavery
- Established its own postal system
- Minted “Republic of Vermont” coins

Vermonters have more recently been first in acknowledging same sex marriages. They are historically and currently a resolutely independent and moral lot, proud of their history and proud of the natural beauty that surrounds them, where they call “home”.



Geography

The Deerfield Valley is located in south central Vermont in the southern Green Mountain National Forest. Nestled between Searsburg Mountain and Mount Olga, the Deerfield Valley is twenty-one miles west of Brattleboro and twenty miles east of Bennington, over mountain roads.

It is a mountainous region with a town center in the base of the river valley, Wilmington is a catch basin for the North Branch Deerfield River and is fed by the Beaver, Meadow, Rose, Haystack, Hall, Ellis, Negus and Wilder Brooks.

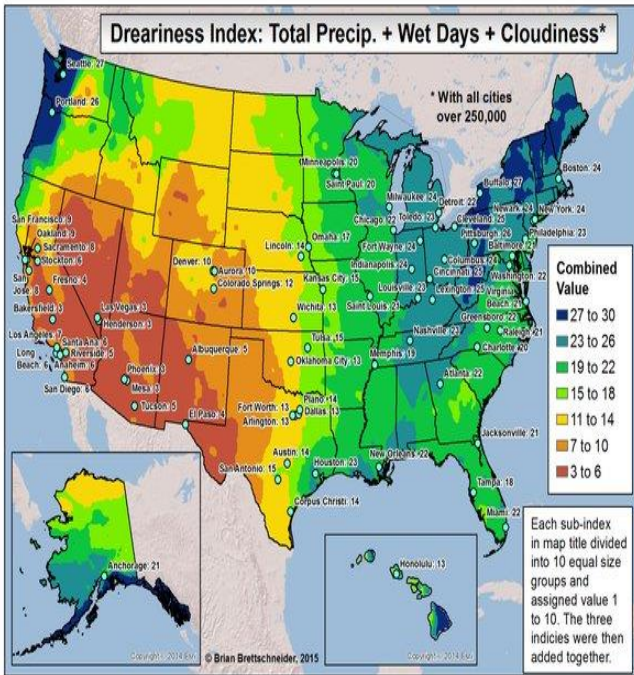
This rural area has substantial tourism causing the population to swell from 1,600 to over 10,000 or more on busy weekends. Mount Snow and Haystack Mountains bring skiers and seasonal workers in winter. The mountains, lakes (8 mile long Harriman Reservoir and 1 mile long Lake Raponda) and village bring visitors in summer. A spectacular array of colors from the vibrantly colored sugar maples brings visitors in fall.

The weather channel.com

Climate

Wilmington experiences a humid continental climate with warm summers and cold (sometimes severely cold) winters. Storms generally move into Vermont from the northwest in the winter and from the south west in the summer. Vermont is one of the cloudiest states in the country (Farmer’s Almanac).

Wilmington enjoys 191 days of sunshine per year (sunny or partly sunny) vs. a U.S. average of 205. It is reported to have 58 days of full sunshine per year, the remaining being partly sunny. The mountainous terrain produces more clouds and precipitation than most states. Wilmington receives 46” of rain per year vs. a U.S. average of 37”. There are 135 days with measurable precipitation. The above average rain creates above average beauty, with lush green mountains and glorious vistas from its peaks.



Snowfall

Average snowfall is 128.5 inches over the past 30 years (weatherdb.com). February 24 – 27, 2010 Wilmington set the state record for snow with a reported 54 in (1.4 m) in a single blizzard. While not “officially” recorded, some residents reported up to 67 inches in that storm. The previous single storm snowfall record was 50 in (1.3 m) between March 2–5, 1947 in Readsboro, Vermont. In comparison, the winter of 2015-2016 was one of the lowest recorded snowfall seasons with only 33 inches of snowfall (Wilmington Wastewater Treatment Plant Weather Records).

Wilmington is in the heart of the Southern Vermont snowbelt. This snowbelt lies mainly within the southern Vermont portion of the Green Mountain National Forest and includes the high elevation Southern Vermont towns of Woodford, Searsburg, Wilmington and Marlboro (Hogback Mountain, bordering with Wilmington).

Climate change is a significant concern for this ski-dependent winter economy. While snowmaking is prevalent in both Haystack Mountain ski area and Mount Snow ski area, mild winters such as that of 2015-2016 have a negative impact on the winter economy.



Our Adjoining Towns

Wilmington borders the towns of Whitingham, Marlboro, Dover and Searsburg, as well as a shared border with Readsboro in the Green Mountain National Forest west of Lake Harriman. There is a single point of corner contact to Somerset to the north-west and a short contact of a few short miles to Halifax to the southeast.

In many ways we share a common history with these towns. Our livelihood has shifted from a primarily agricultural and lumbering base to a tourism base leveraging the natural scenic beauty of the area and the historic structures remaining from that past.



Hogback Oct 2009.
Wikipedia.com with right to copy

Wilmington has developed harmoniously with surrounding towns, sharing symbiotic relationships with the core tourism towns of Wilmington and Dover and its outlying neighbors of Whitingham, Readsboro, Searsburg and Marlboro. While Marlboro remains balanced in its influences between Wilmington and Brattleboro, the remaining neighboring towns operate functionally in conjunction with Wilmington and Dover. While each maintains its personal identity and government, they share both jobs and social support from the Wilmington/West Dover valley.

Education

Wilmington believes in and supports high quality public education for children. Educating our children is an investment in our future. To provide the best possible education and responding to the increasing cost pressure associated with providing quality education in a single small rural town, Wilmington joined with its neighboring town Whitingham to consolidate its two small K-12 schools. The first joint classes in the Whitingham based Twin Valley Middle High School took place in 2003. Joint classes in the Wilmington based consolidated Twin Valley Elementary school took place in 2014.

The merger resulted in increased educational offerings for children from both towns while achieving cost savings. In addition to direct cost savings, elimination of Wilmington Middle High School, one of the three school buildings previously in use, allowed the consolidated school district to access state financial incentives.

As a small community Wilmington struggles to expand student opportunities to make it a school of choice for the region. Sustaining current educational offerings is increasingly difficult as a result of the Act 60/68 education financing system which is driven by economy of scale dynamics favoring larger schools.

With some of the highest property tax rates in the state and in the country, and with education taxes representing 78 % of resident’s tax bills and 76% of non-resident’s tax bills (2016-2017), there is limited ability to raise additional taxes for non-educational municipal development such as the action plans described in this Plan. Windham County is ranked 105th of the 3143 counties in the U.S.A. in median property taxes (Source www.tax-rates.org). Vermont has the 5th highest property tax rates in the country. (Source: www.zerohedges.com)



Wilmington’s Old Middle High School



Demographics

Population as of 2010 was 1,876, down 15.7% from 2000 when there were 2,225 people. Out-migration has occurred for a multitude of reasons, not the least of which are the absence of well-paying jobs, the presence of mostly seasonal jobs in a weather dependent industry, and a school system that is not viewed by residents to be competitive in attracting and retaining families. These challenges have been further exacerbated by the flood of 2011 that wiped out the downtown.

Historical Population

Census Pop.	%±	
1790	645	—
1800	1,011	56.7%
1810	1,193	18.0%
1820	1,369	14.8%
1830	1,367	-0.1%
1840	1,296	-5.2%
1850	1,372	5.9%
1860	1,424	3.8%
1870	1,246	-12.5%
1880	1,130	-9.3%
1890	1,106	-2.1%
1900	1,221	10.4%
1910	1,229	0.7%
1920	1,483	20.7%
1950	1,169	-4.3%
1960	1,245	6.5%
1970	1,586	27.4%
1980	1,808	14.0%
1990	1,968	8.8%
2000	2,225	13.1%
2010	1,876	-15.7
Est. 2014	1,842	-1.8

U.S. Decennial Census

As of 2010 there were 866 households, of which 502 were families residing in the town. 58% of these or 502 had children under the age of 19. 107 or about 1/5th of these were single parent homes. 284 Households were persons living alone, 32.5% of all households. 85 of those living alone were someone 65 years of age or older. The average household size was 2.24 and the average family size was 2.84.

The population density was 56.4 people per square mile (21.8/km²) as of 2000. The racial makeup of the town was 97.80% White, 0.22% African American, 0.27% Native American, 0.58% Asian, 0.18% from other races, and 0.94% from two or more races. Hispanic or Latino of any race were 0.94% of the population.

In the town the population was spread out with 21.6% under the age of 18, 7.0% from 18 to 24, 26.7% from 25 to 44, 30.6% from 45 to 64, and 14.1% who were 65 years of age or older. The median age was 42 years. For every 100 females there were 101.0 males. For every 100 females age 18 and over, 98.7 males.

In 2010 20.6% (386) of the population was under the age of 19, whereas in 2000, 22.2% (480) of the population was under the age of 18. While older data cut-off was at 18, one year less than the 2010 data, the volume still reflected a higher percentage of the population than those under 19 in 2010. This reflects a very significant drop in the youth population. In 2010 4.7% (88) were under the age of 5. This is similar to the under 5 population of 2000 with 4.5% (101) under the age of five. This would imply that the decline in 0 – 19 is primarily in the 5-19 population. In 1990, 7.1% (140) of the population was under age five. This is a sizable drop in the 0-5 population in the 10 years from 1990 -2000.

The median income for a household in the town was \$37,396, and the median income for a family was \$46,786. Males had a median income of \$29,511 versus \$23,417 for females. The per capita income for the town was \$25,171. About 7.0% of families and 9.3% of the population were below the poverty line, including 15.2% of those under age 18 and 5.6%, of those age 65 or older.

Current Trends

Flood Hazard Risk

No conversation about Wilmington's recent history is complete without a discussion of the flooding from Tropical Storm Irene that occurred August 28, 2011. The water level downtown exceeded that of the 1938 flood with its historic high water mark on the police department building in the town center. In a matter of hours the town was changed forever. The downtown area was under 6 feet of rushing water. Two buildings were completely washed away. What remained was badly damaged. Power lines were down and underwater, buildings utility sources were underwater, and the septic plant overflowed releasing raw sewage into the river, propane and oil tanks floated freely through the town releasing their contents into the river and Harriman Reservoir. Bridges washed away and roads were gone. The town was essentially shut down and cut off from the rest of the world. On day two the National Guard took over management of the downtown to ensure the safety and protection of all. A state of disaster was declared. While serious flooding occurred across the entire state of Vermont, Wilmington was declared to be one of the two towns so badly damaged as to not be expected to recover without substantial assistance in planning and funding. FEMA staff was sent in to assist in engaging community members in recovery planning.



Brattleboro Reformer Photo

While the first year post-flood was a challenging one for all, driving many of the downtown businesses under, the town has taken dramatic steps toward recovery. Many structures have been recovered, some rebuilt, and some have a rebuild in the planning stages. The town continues to work toward full recovery. The state indicated it would be a good five years before the town was back on its feet. It has been 5 years August 2016 and we still have a ways to go, but we are well on our way!

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More critical for the view forward is what flooding means for future development in the town. In the past 150 years there have been 5 significant floods leading to widespread disaster and loss of life:

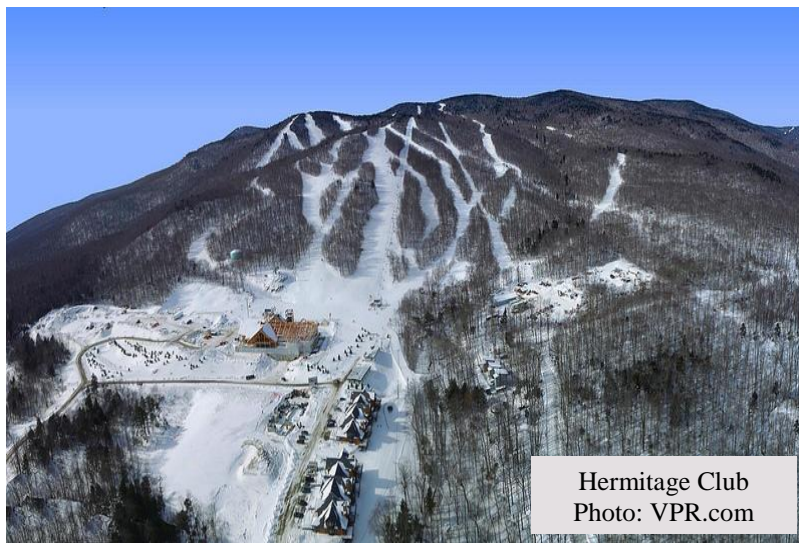
1. October 1869
2. November 1927 (* the largest flood pre-Irene, with 84 fatalities in VT)
3. September 1938
4. June 1973
5. August 2011 (Tropical Storm Irene, with 1 fatality)

Data Source: NOAA

That averages out to a major flood every 30 years. With global warming causing an increase in severe weather patterns, and with the east coast most heavily impacted by the severe weather (with a 76% increase in severe weather compared to much lower rates in the rest of the country) Wilmington is likely to see more floods of this size much sooner than in past years.

Wilmington has been engaged and will continue to engage in extensive planning for flood hazard avoidance and mitigation, a process that was started “post-Irene” and will continue under this Town Plan. With the Agency of Natural Resources taking a strong stance against any action to manage the river through damming, redirecting, or temporarily holding back flood waters for a more gradual release, it appears flood avoidance is off of the table. The town will find greatest opportunity in post-flood management planning and fewer options for flood avoidance.

Haystack Mountain



At 3,462 feet, Haystack Mountain is just slightly lower in elevation than the 3,586 foot elevation of Mt Pisgah, also known as Mount Snow, in West Dover. Haystack Mountain boasts numerous hiking trails to the summit, capturing a broad vista of the valley below. It is also home to the Hermitage Inn Real Estate Holding Company, LLC dba The Hermitage Club, providing recreational, commercial, and residential facilities.

Haystack ski area opened in 1964 off Coldbrook Road in Wilmington. This gave the area a tremendous economic boost by attracting more skiers and vacationers to our area, augmenting the already booming Mount Snow populace. The mountain has changed hands multiple times in the 50 years since its first opening. After about 10 years of profitable operation, the area experienced the consequences of economic downturns and deteriorating snowfalls, with many years of financial difficulty and inoperability:

1964 - 1980	Haystack Corporation (1978-1980 operating under bankruptcy protection)
1980 - 1984	Associated Mortgage Investors (AMI) ending in large financial hardship
1987 – 1994	HS Development, Inc. and Stratfield Associates
1994 – 2005	Mt Snow Ltd
2005 – 2011	1 Cornell Inc. dba The Haystack Club (inactive from 2007 – 2011)
2011 – present	Hermitage Inn Real Estate Holding Company LLC dba Hermitage Club

The Hermitage Inn Real Estate Holding Company, LLC (HIREHC) operate(d) as The Hermitage Club at Haystack Mountain, marketing itself as “the only private ski club in the east,” a members-only resort (from 2011-2018), providing exceptional year-round resort amenities and

outdoor recreational experiences, with significant real estate holdings in the towns of Wilmington and Dover. Their original strategic plan included a 12-year construction period, with a proposed investment of \$285.3 million in new real estate development leading to the creation of 235 FTE jobs. In 2011-2014, The Hermitage reportedly added 447 jobs in the regional workforce.

However, in late February of 2018 the bank holding the mortgage on the development filed a foreclosure motion as the club struggled with finances. Jobs were lost and the club was shuttered via a bank receivership. As of August of 2018 the bank is actively negotiating with several parties in anticipation of an agreement that would re-open the resort



View of Haystack Mountain from the Old Railroad Station 1908
Photo: Wilmington Historical Society



Chimney Hill

Shortly after Haystack Ski Area’s arrival, Chimney Hill opened. Chimney Hill is on the lower southern side of Haystack Mountain in Wilmington and it is a four season resort area with several hundred homes. Chimney Hill opened in 1964 and was one of several developments to spring up around the burgeoning Haystack Ski area. Recognizing the importance of the environmental impact of The Chimney Hill development, the town was pivotal in contributing to the debate at the state level leading to the enactment of Act 250. Chimney Hill and the Haystack Villages have experienced the same economic upturns and downturns as Haystack. During economic good times at Haystack, Chimney Hill and the Haystack Villages experienced growth and positive development. During the economically challenging years, 1978 – 2011, the area stagnated in development. Chimney Hill roads were taken over by the town to ensure road safety. A large number of lots

in Chimney Hill and the Haystack Villages remained undeveloped by their owners. Many of these abandoned lots were eventually taken by the town for tax delinquency and subsequently purchased by HIREHC as a part of their Master Plan for development. While the original lots were as small as ¼ acre, HIREHC will be developing lots at a minimum of an acre by selling multiple lots for a single development, aligning future development of this “ancient” Planned Unit Development with current zoning and Planned Unit Development regulation.

Snowmobile Trails

In the late 60's, with the town experiencing significant growth in winter tourism, the logical next step in the growth of Wilmington was the arrival of snowmobiling and numerous snowmobile trails.

During the early 1970's, the Vermont Association of Snow Travelers (VAST) developed and expanded trails systems in the southern Vermont Green Mountain National Forest. This included Wilmington, Hogback (Mount Olga) and essentially all parts of town. Snowmobiling has proved to



be a vital addition to winter recreation in our area. It has stimulated economic growth and facilitated more visitors, as well as people taking up residence, in Wilmington throughout the 1970's to the present. While the region has seen an overall reduction in snowfall on average, Wilmington has seen recent years of above average snowfall, as well as years of dramatically reduced snowfall. While much of the world has experienced warming trends, Wilmington has had several years of exceptional cold. While global warming is a reality, the change in jet stream weather patterns is delivering more severe weather up the eastern corridor of the United States. The vacillating nature of the weather patterns is compounded by an overall drop in ridership in the snowmobiling industry. The impact of changes in the weather has been exacerbated by an increased number of trail closings by property owners due to abuse of privilege and by ever increasing costs for a permit to ride on trails. Overall ridership is down 45% over what it was at its peak. Membership in VAST, the Vermont Association of Snow Travelers, has tumbled from a high of 42,033 back in 2001 to 23,304 in 2014. Snowmobile registrations in the state have also taken a similar dive in the last decade. While snowmobiling continues to contribute positively to Wilmington's tourism business, we can forecast a diminishing role for snowmobiling as a source of tourism over time.

Restaurants

Wilmington is well known as a dining destination, boasting a number of restaurants, with something for everyone. Many visitors and locals are familiar with present and former iconic landmark restaurants over the past 40 years, such as The Vermont House, The Old Red Mill, The Wilmington White House and Dots. The complexion of Wilmington's eateries changed dramatically after the flood of 2011 causing massive economic hardship on the downtown and physical devastation that changed the business landscape of Wilmington's downtown forever.

The Vermont House has been associated with The Hermitage as a private Inn for prospective members, offering rooms with no food or beverage amenities on site. The Wilmington White House has a rich history, most recently associated with The Hermitage (with an uncertain future) offered private rooms as well as a full service restaurant and bar. Folly Foods was the first eating establishment to open after the 2011 flood followed by The Old Red Mill, a totally rebuilt and

flood resilient Dots Restaurant, a rebuilt Anchor Seafood, The Maple Leaf, and Jezebels. Although many eateries were available before and reopened with considerable efforts in renovations after the flood, by 2018 some well-known restaurants closed to the public. New restaurants continue to open their doors in the downtown and the village proper, such as Cask and Kiln, The Village Roost, Wilmington Pizza House, La Casita and most recently Scalia’s.

MOOver

Growing transportation needs and environmental concerns spawned the advent of the MOOver. The MOOver is part of the Deerfield Valley transit system and it is a daily operated, Vermont-themed (you can’t miss a giant bus painted like a cow coming down the highway) public bus system.



The largest free bus system in Vermont, the MOOver also produces some of its own fuel - biodiesel. The MOOver serves numerous residents in Wilmington, Dover, Halifax, Marlboro, Whitingham, Brattleboro, Bennington and Readsboro. The MOOver boasts having provided 2,000,000 rides over 3,000,000 miles. In 2015, at the request of VTrans, MOOver took over Connecticut River Transit, dramatically expanding their scope of operation. They have completed a new transportation center in the village, a large rustic barn-like structure that is a positive addition to the aesthetics of the downtown area. Having a reliable public transportation system greatly improved local mobility and has been of

tremendous benefit to residents and visitors throughout the greater Deerfield Valley area.

Mt Olga Fire Tower

The top of Mount Olga (the site of the old Hogback Ski Area, the summit being in Wilmington) was given a fire tower by the Forest Service. The fire tower currently on top of Mount Olga was brought here from Townshend, Vermont in 1955 and the magnificent view from the top is well worth the climb. You can reach the tower via a short trail coming out of Molly Stark State Park



in Wilmington. The walk to the fire tower remains a popular day hike for residents, visitors, and Molly Stark State Park campers alike. With an even grander 360 degree vista than the nearby popular traffic stop at the top of

Photo: Alltrail.com

Hogback Mountain, Mt Olga will continue to be a valuable scenic resource for the town.

Harriman Reservoir/Lake Whitingham

Today Harriman Reservoir, also known as Lake Whitingham, is an important recreational asset. With public access and recreational facilities included in the town's agreement with the reservoir owner, the power company, the lake promises to be a benefit to the town long into the future. The lake offers 4 season recreation including boating, fishing, swimming, hiking, ice fishing, x-country skiing and snowmobiling.



Harriman Reservoir
Photo: Flickrriver.com



Harriman Power Generation Dam
Glory Hole
Photo: DVNews.com

The maximum depth of Harriman Reservoir is 185 feet and the lake contains 117,300 acre-feet.

The Harriman Dam at the south end of the lake is named for Henry I. Harriman, engineer for the New England Power Company.

Before Harriman Reservoir flooded 2,200 acres of farms and woodland, including the village of Mountain Mills, the meandering, uninterrupted Deerfield River wound its sinuous way through the river valley. The river’s power was harnessed in the late 19th century by the creation of Mountain Mills Pond as a holding area for logs floated down from Somerset.

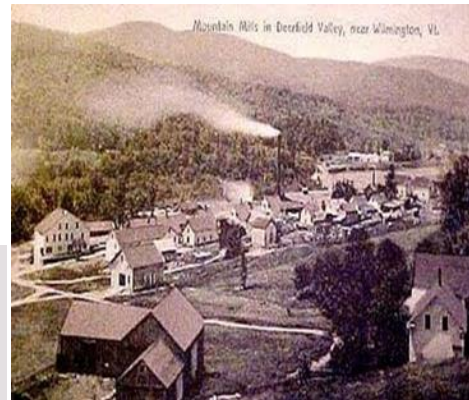


Logging on Mountain Mills Brook Pond, pre-Harriman Reservoir, c. 1900. (Photo: Wilmington Historical Society)

Historic Mountain Mills Brook Pond

In 1912 the Mountain Mills settlement included a railroad station with a store, post office, a 6-bed hospital, brick office building, a boarding house, row housing, and a water tower. The rich Deerfield River valley farmland supplied the settlement with food. A post office designated "Surge Tank, Vermont" was established to serve workers building Harriman Dam, earning it one of the Oddest Place Names in the Postal Service. A site supervisor acted as Postmaster.

Historic Mountain Mills Town Before and After Flooding to Create Harriman Reservoir - 1924



Photos: Wilmington Historical Society



Photo: Wilmington Works - Facebook Photos

Historic Mountain Mills Landscape Before Flooding to Create Harriman Reservoir

In the early 1900s, the New England Power Company began intensive hydroelectric development of the Deerfield River along its entire length in Vermont and Massachusetts. A massive earthen dam was constructed in 1912-13 to create the Somerset Reservoir.



Somerset Reservoir
Photo: Greenmountainconservancy.org

In 1923, Lake Harriman was created by the New England Power Company as part of their hydroelectric system. Fifteen hundred men worked for one year to provide hydroelectric for the Northeast, including workers from surrounding towns, Nova Scotia, Maine, Prince Edward Island and many Austrian Italians, Canadians, and some Native Americans from Maine

Frequent travelers along the Molly Stark Byway will notice the seasonal drawdown of Harriman Reservoir in which the water line drops many feet and much of its shoreline is revealed. This annual drawdown is now regulated

to ensure the ecological health of local fisheries. Harriman Reservoir is a destination for canoeists, kayakers, sailors, sailboarders, paddle-boarders, and fishermen, as well as offering powerboat sports such as waterskiing, wake surfing and jet skiing.

Wilmington, VT	
County	Windham
Total Area	41.3 sq mi (106.9 km ²)
Land	39.4 sq mi (102.2 km ²)
Water	1.8 sq mi (4.7 km ²)
Elevation	1,565 ft (477 m)
Population	1,876 (2010)
Density	56.4/sq mi(21.8/km ²)
<u>Time zone</u>	<u>Eastern (EST) (UTC-5)</u>
<u>Area code(s)</u>	<u>802</u>

Our Past

In 1771 there were fourteen pioneering families living on what is now known as Lisle Hill. This hilltop village settlement contained a store, a meeting house, a tavern, a church, and a number of dwellings, with individual farms scattered about the town. In the early

years of the Town, the farmers produced beef, sheep and wool, butter, maple products, eggs, poultry and wood to sell.

During this pioneer period the forest cutting and sheep farming led to soil erosion, and a



Luddington Factory

resulting decline in agricultural production. George Perkins Marsh, a Vermont farmer and leader, wrote in 1864 about the damage sheep were doing to the soil, and about the problems related to the loss of forest. When the farmers could no longer compete with farms in more fertile regions, the exodus from Vermont began. The end of poorly managed sheep farming in the 1850's and the abandonment of the farms allowed the regeneration of the forest. (Marsh, G.P. 1864)

Moving the Town Center

The construction of the Brattleboro-Bennington Turnpike (the current Route 9) in 1828 would signal yet another change in the economic future of the Town. The crossroads

created by this private highway and the local town roads near the junction of Beaver Brook and the Deerfield River would establish a commercial center for the town. 1833 was known as “the year the Village moved to Mill Hollow.” All of the Town Hill structures but the meeting house came down to the new town center. By the time of its incorporation in 1855, the Village contained four churches, a school house, 80 dwellings, a town house, a clothing store, a market, a marble works, a carriage shop, a harness shop, two blacksmiths, three lawyers’ offices, a savings bank, and daily mail deliveries. (Deerfield Valley Times Reunion Edition, 1900.)



Published by W. S. Brown Congregational Church, Wilmington, VT. CardCow.com



Historic Congregational Church and Childs Tavern, Wilmington, VT
 Photos: Wilmington Historical Society



Historic Forest and Stream Club House (from Fish Pond)

Photo: Wilmington Historical Society

The Forest & Stream Club was a private hunting and fishing club with an exclusive membership of non-residential prominent businessmen and elite sportsmen, opened in 1891. It featured clubhouses and over 700 acres of trout streams, woodlands, and golf links.

Commerce

After the period of decreasing population, changes began to occur that brought more prosperity to the Town. The number of farms in Wilmington increased and it became known as a cattle center. In 1885 the Deerfield Valley Creamery Association was formed, growing to over 100 farm members, and producing in 1923, its best year, 129,571 pounds of butter. Refrigerated cars brought competition from the West. The building of the Harriman Dam in 1923 flooded many farms, and the remaining farmers turned to fluid milk production.

Maple produce has always been important to the Wilmington farmers, first for home use, and then as marketable products. Many of the wooden tools needed in the process were manufactured in town by Adams and Haynes, who made patent liquid holders, watering troughs, and gathering tubs.

The river system surrounding Wilmington provided for the establishment of many kinds of mills, helping the town become a manufacturing center. There were mills for the manufacture of padded clothing and reclining chairs, lumber, and flour. Harnesses, wagons, sleighs, carriages, cabinets, and tin ware were also produced. Wilmington experienced a resurgence of prosperity that had waned as its residents had moved to the cities, the gold fields, and the more fertile farm land of the Midwest. (Deerfield Valley Times Reunion Edition, 1900)

The Railroad

The Hoosac Tunnel and Wilmington Railroad, the more familiar “Hoot, Toot and Whistle,” would also change the direction of Wilmington’s economy. During the spring thaws, from the middle of March to the middle of May, the Deerfield River was jammed with logs from Searsburg, Somerset, Glastenbury, and West Dover heading for Mountain Mills, where about 100 men were kept employed at the saw mills. The railroad provided a ready means to export these logs and timber products to other areas.



Historic View of Mountain Mills
Photo: Wilmington Historical Society

Inevitably, the seemingly endless supply of timber would run out and the principal function of the railroad would shift to local freight and passenger service, including tourist excursion trains. The New England Power Company foresaw the end of lumber, but did see the potential of the river as a source of electric power, and quietly began to buy up property rights in the valley against the time when a series of water storage dams could be built. The first of these was in 1912, when the Somerset Reservoir was constructed. Then, in 1924, Harriman Dam flooded the valley of Mountain Mills, inundating all the farms and the little village. At the time it was the world’s largest earthen dam and the second largest lake wholly within Vermont’s borders. Further lumber production was in the form of veneer, furniture, boxes, and wooden wares. While the railroad came primarily for the lumber and paper pulp generated by the mills at the Mountain Mills Development, its arrival in 1891 signaled the emergence of a new industry in town,

tourism.

Tourism

Wilmington’s location, lakes, and serene beauty were a natural lure for summertime visitors. Easy access via the railroad that was extended to the village in 1891, nurtured this flourishing business. Farms still in operation began to take in summer guests, while vacant farm houses became attractive summer homes for well-to-do families from the cities, many drawn to take “the cure” at the waters of Whitingham. Perhaps most noticeable of the time was the fifty-room hotel constructed on Lake Raponda in 1889, burned in 1896 and re-built in 1900 which for eight years



Historic Second Lake Raponda Hotel
Photo: Wilmington Historical Society

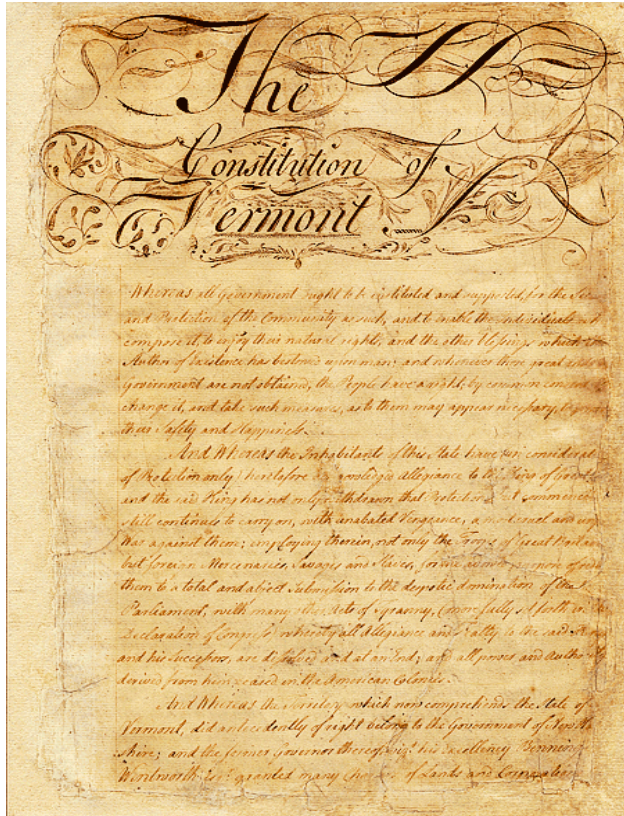
was a successful destination of considerable elegance.

The tradition of elegance was continued with the construction in the center of town, of the Child’s Tavern in 1900, now known as the Crafts Inn, a destination resort for vacationing guests. Summer tourism served to supplement the area’s faltering economy and became a vital part of Wilmington’s growth.

Wilmington’s winter tourism began with the birth of the ski industry in 1953 at Mt. Snow,

formally known as Mt. Pisgah, in Dover. Although Hogback, Dutch Hill, Prospect, and Bromley bounded Wilmington on the east, the southwest, west, and the north respectively, and pre-dated Mt. Snow, they had contributed little to Wilmington’s economic base.

There were few inns or lodges in the Valley during the early years. Many people opened their homes to guests, providing seasonal lodges. As the industry grew, more lodges were built and new retail businesses and restaurants appeared. The Village Center was revitalized by this new industry; craft, gift and antique shops were added. The style of guest housing changed, moving from lodges to planned residential developments of single homes to condominiums, and then to the concept of the destination resort with all housing and recreation interrelated. Many problems such as adequacy of on-site water supply and wastewater disposal arose.



Our History

The Town’s first charter was granted in 1751 by Benning Wentworth, then Governor of New Hampshire (under King George II), and the town was named Wilmington after Spence Compton, the first Earl of Wilmington, a friend of Benning Wentworth. The grant consisted of six (6) square miles and was given to Phineas Lyman and fifty-seven (57) others. In 1763 (under King George III) a second charter was granted for the same six (6) square mile parcel of land. The proprietors were different people, and the town was named Draper.

This double granting created strife among town residents as disputes arose over ownership of land and, of even greater significance, the issue of whether or not the area encompassing the town was a part of the present State of New York or the State of New Hampshire. Issues of ownership between New York and New Hampshire under the original New Hampshire land grants were thought to be resolved in 1777 by Vermont’s Declaration of Independence. However, lingering questions over the issues of New York - New Hampshire land claims under the New Hampshire land grants precluded Vermont from entering the Union as the 14th state until 1791. The last remnants of this land conflict were finally resolved by the Supreme Court in 1931.



Photo: Wilmingtonworks.org

The Town Planning Process

TOWN PLANNING PROCESS

State Authority for Planning

The Vermont Municipal and Regional Planning and Development Act (Chapter 117, 24 VSA, as amended by Act 200), enables municipalities to undertake planning for the appropriate development of land in order to "promote the public health and safety against fire, floods, explosions and other dangers; to promote prosperity, comfort, access to adequate light, air, convenience, efficiency, economy, and general welfare; to enable mitigation of the burden of property taxes on agricultural, forest, and other open lands; to encourage appropriate architectural design; to encourage the development of renewable resources; to protect residential, agricultural and other areas from undue concentrations of population and overcrowding of land and buildings, from traffic congestion, from inadequate parking, and the invasion of traffic, and the loss of peace, quiet, and privacy; to facilitate the growth of villages, towns, and cities and of their communities and neighborhoods so as to create an optimum environment, with good civic design; to encourage development of a rich cultural environment and to foster the arts; and to provide means and methods for the municipalities of this state to plan for the prevention, minimization and future elimination of such land use development problems as may presently exist or which may be foreseen and to implement those plans when and where appropriate." In accordance with statutory regulations, a town plan must be reviewed and revised or readopted every eight (8) years. The first Town Plan was adopted in February 1974.

Strategic Public Planning

The town held a public strategic planning session January 23, 2016. The Strategic Planning process engaged 37 members of the community to identify town needs and actions. The meeting was attended by town employees, boards and committees (including Select Board, Planning Commission, Economic Development, Development Review Board, Design Committee, and Wilmington Works), the chief of police, Windham Regional Commission, and member of the Agency of Natural Resources.



Photo: Wilmingtonworks.org



Photo: Wilmingtonworks.org

Some attendees had engaged previously in community action groups started under FEMA planning facilitators, others were new to the Town Planning Process. Leveraging all of the past initiatives and resources brought into the planning process over the previous four years and drawing out new ideas and opinions built a foundation of valuable public input.

In addition to leveraging past and current initiatives, the town drew on a variety of studies completed in both the public and private sector to support a strong and resilient community. Some of those resources identifying scenic resources,

natural features, economic opportunities, and flood resiliency recommendations for the town include:

- 1) Conway School of Landscape Design, Village Master Plan for Wilmington, VT, prepared by Renee LaGue and Kimberly Smith, Spring 2013.
- 2) A Townscape Analysis, Wilmington, VT, prepared under the direction of John Martin, professor of Landscape Architecture and Regional Planning, University of Massachusetts, September 1976. Known as the Amherst Study.

- 3) V-DAT (Vermont Downtown Action Team) Concept Presentation, Wilmington, VT September 2013
- 4) The Mullin Bi-Town Strategic Economic Development Plan for Dover and Wilmington VT December 2009
- 5) An Ecological Planning Study for Wilmington and Dover, VT, prepared by Wallace, McHarg, Roberts, and Todd, Architects. Landscape Architects, Urban Ecological Planners, Philadelphia, PA, 1972.
- 6) Wilmington Design District Report, prepared by the Town of Wilmington and the Windham Regional Commission, 1982, revised 1983.
- 7) Downtown Wilmington Streetscape Scoping Report, DuBois & King, May 21, 2015
- 8) National Register of Historic Places, Inventory/Nomination Plan, prepared by the Town of Wilmington, 1978-89.

The town plan for development applied the Vermont Guiding Principles for Community Revitalization:

Incremental Change - Providing simple, easy approval processes for small, revitalization focused projects.

Partnership - Encouraging collaboration between public and private sectors.

Leveraging Existing Assets – Building on the wealth of historic and natural qualities of the town.

Quality – Developing high value solutions such as pedestrian friendly, historically interesting, aesthetically appealing, yet economically viable solutions.

Change – Seeking to preserve the historical value of the towns’ structures, vistas, and natural assets of the community, while accommodating the many changes of an evolving community.

How the Town Plan is used

The plan is to be used by town boards, commissions, departments, residents, and businesses in the following ways:

- To provide a framework for planning the future growth of the Town of Wilmington;
- To guide decision making in site development plans and Conditional Use permits;
- To serve as a guide in responding to Act 250 permit application requests;
- To provide a framework for updating Zoning Bylaws;
- To provide a guide for the preparation of subdivision regulations;
- To recommend future planning studies;
- To assist in the development of a capital budget and program;
- To serve as a source of information and guidance to individuals and businesses making decisions regarding their development plans.
- To determine the use of natural resources.

The clearly stated mandatory provisions of this plan are intended to be legally enforceable standards as provided for in Act 250 10 V.S.A. § 6000, *et seq.* and given “due consideration” or “substantial deference”, as applicable, by the Public Service Board public utility power generation reviews in accordance with § 248 (30 V.S.A. § 248). The plan identifies some, but not necessarily all, such standards by labeling them “Legally Enforceable Standards”. Whether or not such standards are identified as such, all clearly written mandatory provisions in this plan are intended to be legally enforceable.

In addition to any other regulatory provisions that may be applicable, such enforceable standards shall be considered as aesthetic standards for and applicable to any construction within the Town of Wilmington. Such enforceable standards are to be interpreted broadly and without exception to protect the mountain and valley vistas, wooded hillsides and undeveloped ridgelines in the Town of Wilmington including, especially, on Haystack Mountain and ridgelines in the west, Medburyville and Mt. Olga. No mitigation measures or interpretations shall be accepted by any regulatory body to overcome prohibitions in such standards.

Interpretation of the Town Plan

Interpretation of this Town Plan shall be the responsibility of the Planning Commission, the Development Review Board, and the Selectboard, with advice from town counsel if deemed appropriate. Except where specifically defined below in this plan, all words used in the Town Plan carry customary meanings. “Should” or “may” means is encouraged but not mandatory. “Shall,” “will,” and “must,” is a mandatory requirement. If any portion of this Town Plan is found to be invalid, any such invalidity shall not affect the remaining portions of this Plan.

Who is Responsible for Implementing the Town Plan?

Implementation of the Town Plan is the responsibility of the Selectboard. While project management and specific tasks may be delegated to other town employees, committees and volunteers the Selectboard is the Board making the final determination on the Plan and is responsible for taking those actions needed to ensure that Plan goals are met.

This Town Plan shall provide the framework for managing Wilmington’s future growth. Tools and techniques for implementing the Town Plan follow.

1. Land Use Regulation: Wilmington has had zoning since 1968. The Bylaw’s recent revisions have been comprehensive with broad updates to the entire Zoning Ordinance, bringing zoning documents up-to-date with current zoning trends and needs. The current Zoning Ordinance has been completely re-written and updated in 2016.

Topics to be addressed moving forward include assessing:

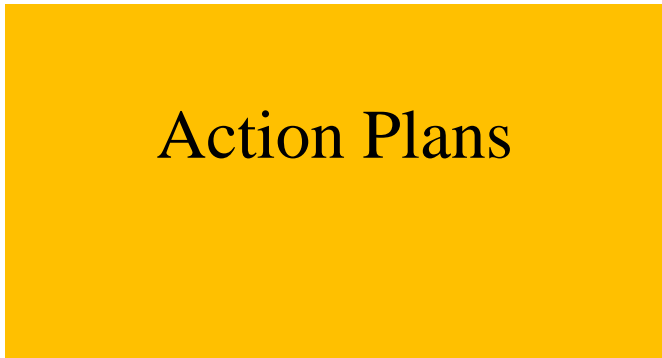
- The Flood Hazard District regulations
- East Main St inclusion in a Design Review District
-
- Subdivision regulations
- A Rural Residential District with a 3-5 acre minimum
- A Blight Ordinance preventing run-down buildings in the Village and on Commercial properties in all Districts.

2. Capital Budgeting: A clear and strategic town plan lays the foundation for effective budget planning. Prioritization of the town’s needs and effective capital budgeting will increase the efficiency and economy of town government.

- 3. Taxation: Vermont’s Use Value Appraisal Program enables landowners who choose agriculture or forestry as long term uses of their property to have that land taxed accordingly. The Program encourages the maintenance of undeveloped lands for farming, forestry, and/or public recreation. Towns may also provide property tax relief for qualifying farm, forest, and open space landowners by adopting tax stabilization programs to reduce local property tax burden.

The agricultural and forestry tax incentive Current Use program does not encourage the conservation of large tracts of land not being managed agriculturally or through forestry; the town would benefit by developing tax incentives to preserve large tracts of non-agricultural, non-forestry lands from being subdivided and developed. Wilmington’s value as a pastoral and bucolic landscape will benefit from preserving these non-conserved large tracts of lands rather than taxing heavily, encouraging divestiture. The town should explore tax incentives to promote their conservation.

- 4. Land Acquisition: The most certain methods for protecting and assuring controlled public use of valuable recreational and scenic lands are by gift, purchase in fee simple, lease, or by acquisition of easements or development rights. Due to the extensive development needs of the town, Wilmington is not economically positioned to buy lands to be conserved. However, areas best conserved maybe identified by the Town, as well as potential investors or funds that may be available to help secure conservation targets.



ACTION PLANS
Goals, Policies and Recommendations

The following Goals and Action Plan sections of this Town Plan will be managed by existing departments, committees or Town Officers:

- | | |
|-------------------------------------|--------------------------------------|
| - Community Facilities and Services | The Selectboard and the Town Manager |
| - Housing | The Selectboard |
| - Economic Development | Office of the Town Manager |

opportunities and bond availability options to the public a minimum of once a year at town meeting.

Action 1.1.8: Explore holding the annual town meeting during nighttime hours or on a weekend to allow for the attendance of a greater number of the public.

Action 1.1.9: Enhance functionality and security of the town website.

Actions 1.1.10 More effectively utilize electronic communications for “push notifications” of town events, meetings, surveys.

Action 1.1.11: Identify philanthropic funding opportunities for community projects and education.

GOAL 2: Provide accessible and reliable Public Facilities and Services.

Policy 1: Town services and facilities shall provide uninterrupted services in the case of an emergency.

Action 2.1.1: Relocate town offices, fire, police, and Emergency Medical Services (EMS) outside of the flood hazard areas and river corridors.

Action 2.1.2: Conduct an annual needs assessment of fire, police, and EMS services. Take action according to need.

Action 2.1.3: Designate an emergency shelter. Ensure ADA accessibility.

Action 2.1.4: Provide increased local library services and programs. Increase library hours of operation and size of physical operations.

Action 2.1.5: Expand Memorial Hall programs.

[See Energy Section for energy related goals of Public Facilities and Services.]

GOAL 3: Promote social cohesiveness and a sense of “place”; who we are, an identity and a town culture of what we value and a commitment to mutual support and kindness to those of the community.

Policy 1: Provide community activities and gathering spaces for the community to come together.

Action 3.1.1: Engage the community in developing a clear vision on the future look of the Downtown including 1) future downtown development outside of the flood hazard

area, 2) maintaining a look compatible with the historic district, 3) a community center, 4) a town green, 5) greenspaces, sitting areas, nature walks, vista walks.

Action 3.1.2: Support the opening of a community center

Action 3.1.3: Support the development of a town green.

Action 3.1.4: Provide Downtown activities for community engagement and visitor attraction (festivals, strolls, dances, concerts, fairs, speakers, workshops, skills expos). Build a visibly active and vibrant Downtown.

Policy 2: Build a public image of Wilmington as a forward thinking, change embracing small town with a strong sense of who we are.

Action 3.2.1: Use of Social and other media to promote what a great place Wilmington is to live.

Policy 3: Build volunteerism as an expectation and a positive experience encouraged for all residents. Engage every resident to invest in the future of the town.

Action 3.3.1: Promote volunteerism by asking every resident to be active in our community.

Action 3.3.2: Hold volunteer appreciation outings and events, dinners, awards, gifts

Action 3.3.3: Develop a brochure explaining how volunteerism works in town boards and committees, subcommittees, Wilmington Works, social assistance programs, and other volunteer opportunities in the town.

Action 3.3.4: More effectively utilize electronic communications for “push out notifications” of volunteer activities available.

<p>GOAL 4: Work with the School Board to provide an educational system that will a) attract people to move here, b) develop skills needed for workforce development, c) attract and retain students through desirable educational and extracurricular activities.</p>

Policy 1: Work with the School Board to provide high quality educational and job training opportunities for students of all abilities.

Action 4.1.1: Work with the School Board to provide local access to expanded youth and adult career and technical programs.

Action 4.1.2: Work with the School Board to provide local access to adult education degree programs.

Action 4.1.3: Work with the School Board to identify school funding sources; i.e. develop a school site promote philanthropic contributions.

Action 4.1.4: Promote a revised allocation formula for state education tax dollars.

Action 4.1.5: Work with the School Board to provide extracurricular after school sports and activities that promote exercise, the arts, career and technical skills development, and recreation.

Action 4.1.6: Work with the School Board to promote healthy choices within the schools; healthy eating, non-smoking, zero tolerance for substance abuse.

Policy 2: Work with the School Board to promote school successes and programs

Action 4.2.1: Work with the School Board to develop a school newsletter, distribute to all those signed up for town electronic newsletter.

Action 4.2.2: Work with the School Board to develop a school website that is easy to use and effectively communicates school needs, achievements and other information.

GOAL 5: Offer local community health support services.

Policy 1: Ensure availability of and make the community aware of local health, mental health and substance abuse treatment and recovery services. Arrange for supplements to existing services for improved availability and access.

Action 5.1.1: Encourage mental health and substance abuse providers to provide services locally.

Action 5.1.2: Ensure availability of services for elderly and disabled including transportation, meal delivery, health care services support.

Action 5.1.3: Promote the use of ‘211’ to access existing services , such as: DV Community Cares, DV Community Partnership, SASH, Food Pantry, Families First, Habitat for Humanity, Windham/Windsor Housing Trust, Churches, Medical Facilities, Mental Health Providers, Drug and Alcohol Abuse Programs, Police, Fire, and Rescue.

GOAL 6: Offer a wide range of local community recreation services to address the needs of all age groups, ability levels, and interests.

Policy 1: Ensure availability of activities and services for the aging and disabled.

Action 6.1.1: Arrange for additional adult activity programs to broaden availability for the aging and disabled: music, art, crafts, and exercise.

Action 6.1.2: Encourage a network of volunteer persons available to engage the elderly (read, play cards, driving, handyman work, etc.).

Policy 2: Provide youth and young adults with activities free of alcohol and drugs

Action 6.2.1: Arrange for dances, concerts, outdoor activities, cooking, gyms, nightlife and civic groups.

Action 6.2.2: Develop community police, fire, and town official outreach programs to foster relationships between town services and residents, businesses, and schools.

Policy 3: Preserve and improve National, State and Town-owned lands and Power Company lands/waterways for recreational and aesthetic value to benefit residents and visitors.

Action 6.3.1: Expand recreational opportunities for residents utilizing the area’s natural resources and local expertise and talents.

Action 6.3.2: Provide clear signage for access to resources.

Action 6.3.3: Support commercial recreational development that compliments the natural terrain and aesthetic beauty within our town.

HOUSING

GOAL 7: Ensure the Availability of Housing for all Residents of Wilmington.

Policy 1: Provide housing at varied prices, sizes and locations to meet the needs of all residents including low to moderate income and elderly. Embrace a diverse community.

Action 7.1.1: Review old surveys and conduct new surveys of residents to determine community and senior housing needs.

Action 7.1.2: Develop a strategy and implement a program to address housing needs as identified.

Policy 2: Preserve and maintain the mixed use and historic character of the Village.

Action 7.2.1: Maintain current zoning ordinances so as to continue to address the preservation of the historic character of the village and promote mixed use.

ECONOMIC DEVELOPMENT

GOAL 8: Provide the necessary infrastructure to support future economic development

Policy 1: Provide the necessary water/sewer infrastructure to support economic development.

Action 8.1.1: Update the water/sewer systems and expand availability.

Action 8.1.2: Report Wilmington Water District water quality test results on the town website.

Action 8.1.3: Develop additional water supply capacity to address increasing demands. (e.g.; wells, springs, etc.)

Policy 2: Encourage state-of-the-art data services to allow development of remote business access.

Action 8.2.1: Arrange for broadband and cell service to all areas of the town.

Action 8.2.2: Arrange for fiber-optic capability.

Policy 3: Provide safe, effective, and attractive infrastructure in the Village District

Action 8.3.1: Upgrade Village sidewalks and lighting for safe, attractive, ADA compliant pedestrian transportation.

Action 8.3.2: Keep sidewalks and roadways plowed, sanded and salted as needed to maintain continuous safe travel lanes for pedestrians and motorized vehicles.

Action 8.3.3: Keep roadways free of hazards such as potholes, bicycle/motorcycle skidding hazards, oil, and water.

Action 8.3.4: Develop anti-blight regulations to ensure an attractive town.

Action 8.3.5: Hold public meetings with police, fire, EMS.

Policy 4: Expand the Designated Downtown and the Design Review District for new economic development outside of the flood hazard area.

Action 8.4.1: Apply for and receive approval on expanded Designated Downtown.

Policy 5: Attract and retain younger population for an expanded workforce pool of employable residents.

Action 8.5.1: See Community Services and Facilities section for initiatives designed to attract and retain youth and build skill sets needed for an employable workforce.

Action 8.5.2: Encourage the development of accessible and affordable child care programs for working parents.

Policy 6: Explore the availability of programs for new and existing business development

Action 8.6.1: Develop a tax incentive program for new business development and existing business retention.

Action 8.6.2 Develop a business incubator/start-up program.

Policy 7: Survey residents and second homeowners to identify economic development needs.

Action 8.7.1: Survey residents: where do they work, what do they want from employers, what will it take to keep them employed in the community.

Action 8.7.2: Survey employers: what do they need from employees, what they need from the town, what would help them expand, what would help them stay.

Action 8.7.3: Survey students: what would it take to keep them here, what type of job opportunities would they like to see developed in the community.

Action 8.7.4: Survey second homeowners & residents: what businesses and services would they like to see developed in Wilmington, do they have opportunity to open businesses in Wilmington or to work remotely from Wilmington.

GOAL 9: Have a clear and concise Marketing Plan to guide the town’s economic development

Policy 1: Continue Marketing Plan development efforts for increased clarity of target market and implementation plans for expanded economic development.

Action 9.1.1 Create a town Marketing Plan and work with the Chamber of Commerce and Bi-Town Committee to address a development plan focused on Recreational, Resort and Entrepreneurial growth.

Action 9.1.2: Identify target markets for businesses that complement the town development plan.

Action 9.1.3: Promote traditional and forward thinking agriculture such as organics and hydroponics through the State of Vermont’s expert resource network to assist in agricultural business development and business planning.

GOAL 10: Make it easier to do business in Wilmington

Policy 1. Assist new and existing businesses in navigating local, state, federal complexities of doing business.

Action 10.1.1: Develop a Town Website section for new, existing, and potential business owners covering what resources are available in town, Act 250 sites to navigate the process and town zoning guidance.

Policy 2. Promote business development opportunities in Wilmington.

Action 10.2.1: Develop Village Directories and Signs to find businesses, parking, and restrooms. Post large directory signs in key strategic locations in town. Make brochures available in the Chamber and at stores.

Action 10.2.2: Create media buzz on why to open a business in Wilmington, through available social media.

Action 10.2.3: Help potential business owners and visitors find recreational opportunities in the town through clear signage, maps, signs and brochures.

FLOOD RESILIENCE

Goal 11: Make Wilmington a flood resilient community.

Policy 1: Protect river corridors, floodplains, wetlands, and upland forested areas to moderate flooding and fluvial erosion.

Action 11.1.1: Identify Flood Hazard Areas and River Corridors. Develop an updated Flood and Fluvial Erosion Hazard regulation aligned with state and local goals to protect and preserve these areas.

Action 11.1.2: Work with the Agency of Natural Resources and Army Corp of Engineers on stream and river management.

Action 11.1.3: Promote, continue and expand agricultural and forestry operations.

Policy 2: Provide Flood Hazard regulations to protect residents and infrastructure from flooding loss.

Action 11.2.1: Expand Flood Hazard District zoning regulations to minimize flood hazard development risk.

Action 11.2.2: Remove floatables from the floodplain through regulation and by working with property owners where floatables are grandfathered as an existing use or protected through agricultural or silviculture protection regulations.

Action 11.2.3: Adopt River Corridor Protection regulations aligned with state and federal goals to ensure maximum state and federal funding availability in the event of a flood.

Policy 3: Flood emergency preparedness and response planning are encouraged.

Action 11.3.1: Hold public meetings to review Emergency Preparedness plans for the community, so all will understand what will happen in the event of a flood.

Action 11.3.2: Annually update the Local Emergency Operations Plan.

Action 11.3.3: Update local Hazard Mitigation Plan as needed to comply with FEMA requirements.

Policy 4: Protect town infrastructure from flood damage to ensure uninterrupted commerce during a flood.

Action 11.4.1: Install 100 year flood size culverts, where feasible, replacing the 25 year flood culverts currently in use.

Action 11.4.2: Move key public services out of the flood hazard areas. (See Community Services and Facilities)

Action 11.4.3: Expand economic development outside of the flood hazard areas. (See Economic Development)

Action 11.4.4: Assess opportunities for reducing flood obstructions at the West Main Street Bridge.

Action 11.4.5: Explore working with Agency of Natural Resources (ANR) to refine River Corridor mapping.

NATURAL RESOURCES

GOAL 12: Protect and preserve the important natural resources and features important to the town.

Policy 1: Identify and protect natural resources and features important to the town.

Action 12.1.1: Identify and inventory important resources and features including:

- vistas/viewsheds
- ridgelines
- scenic roadways
- deer wintering & bear scratch areas
- areas of recreational value
- unstable, steep slope areas
- erosion or slide risks
- productive forests
- historic structures
- historic areas
- agricultural lands
- aesthetic areas, lands over 2000 feet
- large tracts of forest or agricultural land
- wildlife/waterfowl habitats & migration corridors
- endangered plants & animals
- significant natural communities; plants, animals
- areas of educational, research, or science value
- earthquake risks
- groundwater/aquifer recharge areas
- wetlands, streams, rivers, lakes, ponds, open waters
- lighting restrictions to maintain a dark night sky
- sand, gravel, mineral deposits

[Wilmington has no areas defined by the ANR to be state protected “Natural” or “Fragile” areas.]

Action 12.1.2: For important natural resources and features identified to be protected, develop standards to be applied to land development to preserve and conserve important natural resources and important features of the town including:

- Conservation of productive forests and agricultural lands
- Prevention of fragmentation of tracts of forest, agricultural or natural resource lands
- Retention of wetlands, swamps, bogs, fens, marshes & open water in their natural state
- Maintenance of a vegetative mat over high water tables
- Require buffer strips on all riparian areas and river and stream corridors
- Preservation of all important natural resources

Action 12.1.3: Prevent or reduce negative impacts on air quality on a local basis.

Promote state regulator advocacy to reduce external sources of negative air quality impact on local residents (e.g.; particulates carried east from production plants in the mid-west)

Action 12.1.4: Protect groundwater sources and aquifer recharge sources, i.e. wells, ponds, lakes, streams. Regulate land alteration that interferes with natural water flow and absorption or creates erosion. Prohibit development that will compromise water quality.

Action 12.1.5: Regulate the appropriate use and preservation of historic features to protect, rehabilitate, restore, and renovate historic structures and features to preserve the historic value of the town.

Action 12.1.6: Protect the continued operation of agricultural industries to preserve the agricultural heritage of the town.

Action 12.1.7: Identify conservancy purchase opportunities for long term resource conservancy; conservation easements, non-profits, conservation or community land-trusts and purchasing of land to protect and prevent fragmentation of important resources.

Action 12.1.8: Encourage citizen participation to protect and conserve important natural resources (e.g., restrictive covenants, non-profit conservation groups and community land trusts)

Action 12.1.9: Identify, protect and enhance recreational opportunities for town residents and visitors utilizing the town’s natural resources.

Action 12.1.10: Develop standards to protect wildlife corridors. Work with adjoining towns to ensure continuity of wildlife corridors across town borders.

Action 12.1.11: Promote the preservation of larger tracts of forested and open lands through development of a Rural Residential District and providing land owners with information on the benefits of forest management and agricultural management plans.

Action 12.1.12: Make known the availability of tax credits for preserving forested and open lands.

GOAL 13: Manage Rivers, streams and waters in conformity with state and federal guidelines.

Policy 1: Promote all state and federal guidelines on river, stream, lake, pond, and wetland management.

Action 13.1.1: Explore the adoption of river and stream management regulations

Action 13.1.2: Identify riparian buffers along waterways, streams, rivers, ponds, and lakes. Develop regulations to protect against pollution and erosion and ensure the preservation of water quality and wildlife habitat. Prohibit new development in buffer areas not yet developed.

Action 13.1.3 Conform to the Vermont Shoreland Protection Act.

Action 13.1.4: Assess local vs. state oversight role for the Shoreland Protection Act.

ENERGY

GOAL 14: Encourage the Efficient Use of Energy and the Development of Renewable Energy Resources through execution of action plans

Policy 1: Promote alternative energy sources such as solar, wind, and hydropower while minimizing impact on the landscape, agricultural lands, and forests.

Action 14.1.1: Identify and promote solar solutions utilizing the latest in technology. Provide energy conservation while preserving the landscape. Provide natural buffering to screen solar arrays from public view as needed.

Action 14.1.2: Identify and promote small local wind generation solutions utilizing the latest in technology.

Action 14.1.3: Promote the continuing use of Harriman Reservoir for hydropower while maximizing recreational access and opportunities for residents and visitors on the lake.

Policy 2: Provide safe energy generation and consumption.

Action 14.2.1: Require all oil and propane tanks in the flood hazard area to be secured to prevent becoming dislodged in the event of a flood.

Action 14.2.2: Provide fire fighter training on structures with roof-top solar installations and ground mounted solar.

Action 14.2.3: Make available information on roof-top solar, ground mounted solar and individual wind installation safety and hazards such as central shut-off switches and rooftop pathways for firefighting and roof access purposes.

Action 14.2.4: Encourage solar development opportunities in conformity with Energy Siting Standards and Preferred Solar Locations included in the Energy provisions of this Plan.

Action 14.2.5: Encourage wind development in conformity with Energy Siting Standards and Preferred Wind Locations included in the Energy provisions of this Plan.

Action 14.2.6: Identify and map renewable energy generation sites capable of generating energy to meet the 2050 targets of renewable energy generation defined by the state, recognizing that land may not be available due to private property constraints, site specific constraints, or grid-related constraints.

Action 14.2.7: Promote renewable energy generation to reduce dependence on fossil fuels for sustainable economic and recreational development while preserving the character of the community through providing municipal endorsement of renewable energy opportunities aligned with the Energy Siting Standards and Preferred Solar/Wind Locations of this Plan.

Action 14.2.8: Utilize state provided Energy Efficiency estimation tools to establish long term energy efficiency targets for 2025, 2035, and 2050 that best meet the needs of the town while working to achieve the energy goals of the state.

Policy 3: Reduce energy consumption, increase energy efficiency, and reduce air pollution.

Action 14.3.1: Promote a clustered village for localized and easily accessible services conducive to energy efficiency in accessing services.

Action 14.3.2: Provide every residential property owner and commercial property owner with literature on Vermont Residential Building Energy Standards and/or Vermont Commercial Building Energy Standards (CBES).

Action 14.3.3: Make conformity with the standards of the Vermont Residential Building Energy Standards (RBES) and the Commercial Building Energy Standard (CBES) a Standard of all Conditional Uses within the Zoning Ordinance. 30 V.S.A. 51 and Vermont Commercial Building Energy Standards

Action 14.3.4: Provide residents with information on resources available to assist homeowners in energy audits including:

- conservation of water
- home heat loss
- weatherization methods, materials, and installation
- siting and design of homes to maximize natural heating/reduce heating in summer
- utilization of solar, wind, wood, biomass, and water power

Action 14.3.5: Conduct energy audits of all municipal buildings, new and existing. Address energy recommendations as funding allows.

Action 14.3.6: Support Moover public transportation services.

Action 14.3.7: Maintain adequate Park-and-Ride spaces.

Action 14.3.8: Provide safe sidewalks and walkways/bikeways to encourage pedestrian transportation.

Policy 4: Preserve and restore aesthetics of the town by relocating distribution lines out of sight when feasible and possible.

Action 14.4.1: Expand and enhance telecommunications services (DSL, Fiber-optics) throughout the town.

Action 14.4.2: For new, updated or replaced distribution (electrical) and communication (telephone, DSL, Broadband, Cable) lines, place underground in the road right-of-way whenever feasible and possible. When not feasible and possible, place within or adjacent to existing utilities.

TRANSPORTATION

GOAL 15: Provide for Safe, Convenient, Economical and Energy Efficient Transportation Systems.

Policy 1: Maintain roads in good and safe condition.

Action 15.1.1: Identify and prioritize Highway Dept. inventory of road needs. Establish a plan for road development and maintenance.

Action 15.1.2: Bring all culverts up to 100 year flood standard sizes, up from their current 25 year flood sizing, as time and funding allow.

Action 15.1.3: Work with the state to determine the West Main Street bridge repair or replacement options to reduce any flooding impact and maintain the character of the historic downtown village.

Policy 2: Provide efficient vehicular traffic and pedestrian circulation in the town.

Action 15.2.1: Develop greater off-street parking capacity in the Downtown.

Action 15.2.2: Promote the Southern Vermont Transit (aka: Moover) and car/vanpooling services tied to and coordinated with regional routes servicing commuters, students, resorts, downtowns, bus and train terminals, and healthcare facilities for the elderly, disabled, and handicapped.

Action 15.2.3: Promote downtown pedestrian patterns along Shafter St. to Reardon's Bridge and around Beaver St to create alternate and circular pedestrian patterns.

Action 15.2.4: Provide safe and ADA accessible sidewalks, crosswalks, and walkways connecting the services and facilities of the town. Continue lighting and sidewalk projects to address gateway/pedestrian issues.

Action 15.2.5: Provide safe and accessible bicycle and pedestrian friendly pathways, transportation networks and facilities servicing the downtown area and transportation corridors along Routes 9 and 100.

Policy 3: Promote electric or other non-fossil fuel transportation options

Action 15.3.1: Make electric charging stations available in the downtown.

Action 15.3.2: Promote conversion of municipal vehicles to alternative fuel sources by 2050.

LAND USE

GOAL 16: Maintain Wilmington’s compact village and rural countryside.

Policy 1: Encourage the Village to continue its role as a viable, friendly, attractive, commercial center with a mix of residential and commercial uses.

Action 16.1.1: Work with existing Community Services and Economic Development on streetscape improvements for the Village such as attractive directional signage throughout the Village to find business, resources, and parking and restrooms and to potentially expand the Design Review District.

Action 16.1.2: Determine costs, benefits, and need for a Certified Local Government designation for the Village. The CLG program enhances the local government role in preservation by strengthening a community’s preservation program and its link with the state historic preservation office.

Policy 2: Maintain the rural character of the Town outside the Village by encouraging the continued existence of cropland, meadows, pasturelands and forested hillsides and mountains. Current zoning provides targeted development areas, standards of development, and protections for agricultural and silviculture (forestry) uses.

Action 16.2.1: Develop standards for protecting those resources and town features identified by the Planning Commission to be preserved. Investigate conservation easements, non-profits, conservation or community land-trusts and purchasing of land to protect valuable resources. (See Natural Resources).

Action 16.2.2: Develop a rural/residential zoning district

Policy 3: Encourage higher density commercial growth in the Commercial/Residential District. Discourage “strip development” by encouraging clustered commercial areas for growth. Current zoning encourages higher density commercial growth in the Commercial/Residential District.

Policy 4: Provide zoning aligned with compact village development and retention of countryside outside of the village.

Action 16.4.1: Reassess commercial/residential district boundaries.

DATA AND INFORMATION



What the Numbers Say

Understanding the Numbers

Census Data and the American Community Survey

There are different sources for data used to inform the Plan. The numbers do not always match precisely, in part because they are generated using differing methodologies and timeframes. The decennial census, conducted once every ten years, collects “point-in-time” data. The American Community Survey is conducted year-round to gather “period” data that are five-year rolling average estimates which have a relatively large margin of error; they do not reflect actual counts like population, age, or sex. These estimates can be useful when analyzing trends in small populations, but should be used cautiously when making direct comparisons. While the data inform the discussion of the Town Plan, figures have margins of error and should not be interpreted as literal or precise.

Community Facilities and Services

Waste Water Disposal

Wilmington operates 7 pumping stations and one wastewater treatment plant that averaged a daily treatment and discharge of 74,500 gallons per day over the past 5 years. The original facility was built in 1964 to provide primary treatment. The original collection system mostly served the immediate downtown area and included only one pump station located on West Main near the 1936 Country Store. In 1980 the collection system was expanded to the West to Haystack Road and included the installation of pump station #3 located just west of the Nutmeg Inn. In 1987-88 the Treatment Plant was upgraded to provide secondary treatment which included the addition of 2 RBC's (rotating biological contactors), 2 Aerated Lagoons, back-up power supply and a chlorination/dechlorination system. The collection system was expanded in 1989-90 which included the addition of 4 more pumping stations. Sewer lines were run to the north to include the elementary school, the west to the White House and Ray Hill, Lisle Hill, Castle Hill, Whitney Lane and Fairview Avenue were added to the collection system. In 1994 we began treating our biosolids using an in-vessel composting system and purchased the equipment in 1996. In the late 90's we upgraded our aeration, chlorination and dechlorination systems. In late 2011 and early 2012 after Tropical Storm Irene, 3 pumping stations were rebuilt after being damaged by flooding. In 2015-16 a refurbishment project was completed at the Treatment Plant which included the replacement of the original primary treatment system with a new system called a rotating belt filter and we are the only facility in the east that has this technology. A new primary treatment building was built, RBC's were upgraded, control building was refurbished which included an all new motor control center and a new back-up power supply generator. The office/lab building was demolished and rebuilt. The total cost of the project was 2.5 million and was completed in June of 2016.

The Cold Brook Fire District serves the north-west corner of the Town, including the Haystack development. Areas not served by the treatment facilities utilize individual, on-site septic systems as the principal means of waste water disposal. The State of Vermont requires permits for on-site septic systems, as well as potable water supplies. These permits are issued by Vermont Department of Environmental Conservation.

In addition, the North Branch Fire District (which does not serve Wilmington) owns two spray fields in town.

Water Districts

The Wilmington Water District is a municipal system independent of the town. The water for the system comes from springs on Haystack Mountain and other wells in the northeast section of Town, some of them on private property. A new covered storage system was built in 1992 and the distribution system has been upgraded. Water flow to each building in the system is now metered. The commissioners of the water district have allowed for additional users within the district but have not planned for any expansion of the district. An aging distribution system has resulted in numerous areas where piping must be replaced. A replacement schedule has been established, however, funding resources have not been established to support full replacement.

Chimney Hill water system is a privately owned water system providing water for the Chimney Hill Development. The Cold Brook Fire District water main extension policy was designed to meet the future expansion plans of the Haystack Development.

Electric Distribution

Wilmington is served by Green Mountain Power.

Solid Waste Disposal

Wilmington is a member of the Windham Solid Waste Management District. Wilmington's landfill was closed in the 1990s and the site was converted to a transfer station. The Town operates the transfer station on Miller Road for all Wilmington residents and landowners. The transfer station also has a recycling center and information on what can be recycled is found on the Wilmington website. Recycling bins for paper, plastic, glass and cardboard are located on Beaver Street in the village center.

Public Safety Services

The Town of Wilmington has one fire station, staffed by a full time Fire Chief and volunteer members. The volunteer base of the fire department has been undermined by an aging and retiring force, with insufficient success in drawing a new volunteer force. The town is developing outreach efforts, including working with Hermitage Corporation, to strengthen the volunteer force. With surrounding towns experiencing similar volunteer shortages, the long term viability of an all-volunteer force and independent divided fire departments seems questionable.

The firehouse is located on Beaver Street in Wilmington, close to the former High School building. The Wilmington Fire Department is a member of the Keene Mutual Aid System and approved by the Vermont Fire Underwriters. It houses three fire pumpers, a heavy duty rescue truck, boat, snowmobile, and ATV with recovery sled. The fire department handles fire and emergency medical rescue support for Wilmington, Somerset, and Searsburg.

With a growth in solar installations on residential houses, fire-fighting safety on electrically charged roofs and how to keep occupants safe will be a training focus for the Wilmington fire-fighters.

Police protection is provided by the Wilmington Police Department. Additional police protection is provided by Vermont State Police.

Health and Emergency Services

Most of the health and medical needs of the Town are met through the Southwestern Vermont Medical Center, Deerfield Valley Campus (formerly known as Deerfield Valley Health Center) which is located in Wilmington and serves towns in western Windham County. More extensive medical services are provided by facilities in Brattleboro, Bennington, Greenfield and North Adams. The town employs a town nurse for nursing assessment and in-home care for all residents with a nominal fee per visit. There are a number of other health services, including dentistry and psychiatric and physical therapy services, available in Wilmington to valley residents and visitors.

Deerfield Valley Rescue, a volunteer non-profit organization, provides 24-hour pre-hospital emergency medical care and transport for Wilmington residents and visitors. New volunteer members are frequently needed.

Communications

Telephone Service

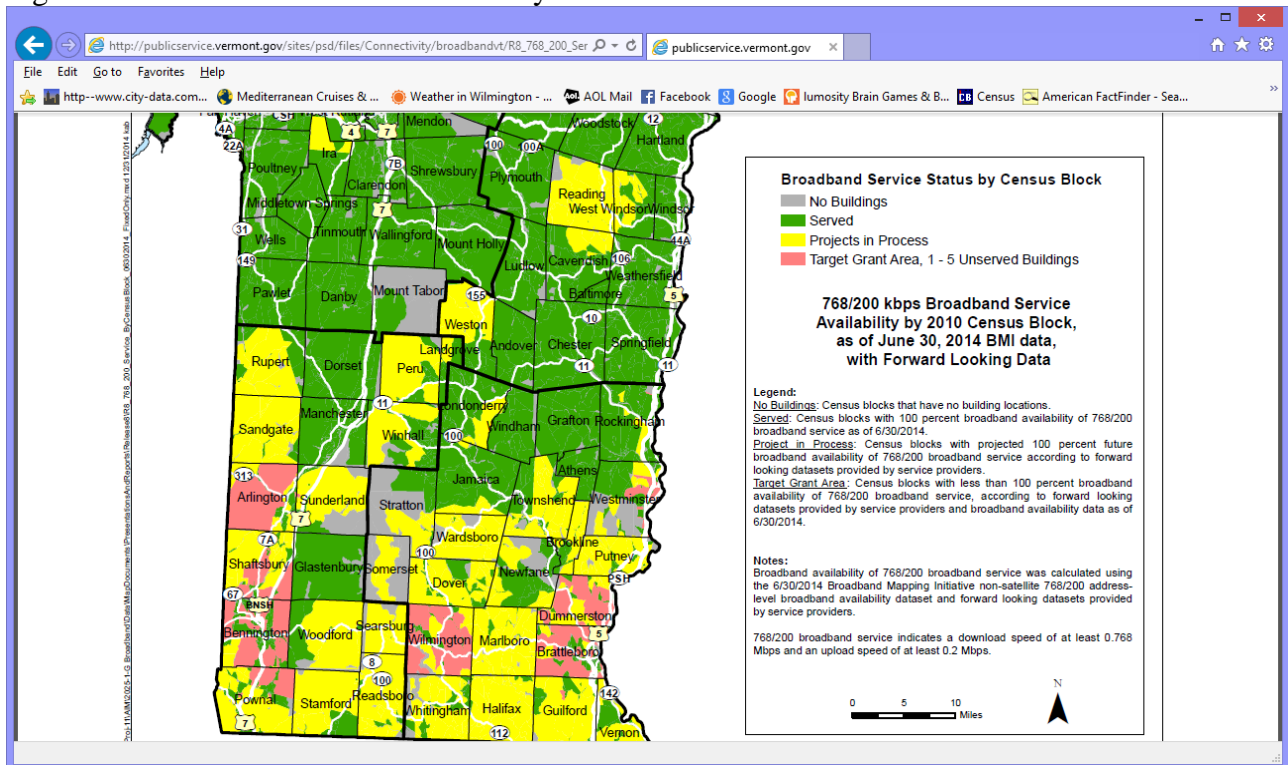
Wilmington’s local telephone service is currently provided by FairPoint Communications. A variety of providers are available for cellular and long distance service.

Internet Access and Broadband

As of 2015, the data indicate that all but 2 of the 2,263 locations in Wilmington are purportedly served at the minimum speed of 768/200mbs, including fixed and mobile wireless providers. If you exclude mobile wireless, 149 locations are not served, and all but one of these are projected to be served by a project in progress. Wilmington has an ordinance regulating the construction of telecommunications facilities.

Both the Town and the Pettee Memorial Library have high speed free Wi-Fi available in the downtown area, and many of the local businesses are offering free wireless access to their customers.

Figure 1: Broad Band Service Availability



Cable Television

As of 2016, Duncan Cable was the current provider of cable television service for those serviced with cable access in the Town of Wilmington. Many town roads do not have cable offerings.

Library

The Pettee Memorial Library is in an historic building located on South Main Street in the Village district of Wilmington. The library continues to experience growth, with a 2017 attendance of 22,652 (up 12% from 2015) and book circulation of 16,428 (down 25% from 2015). Attendees of the library come not only from Wilmington. Dover, Marlboro and Whitingham residents use Pettee Memorial Library resources. The librarians help educate and create a healthier lifestyle for our community. Librarian positions add to the employment opportunities in the town.

The 24 hour accessible Wi-Fi is available to the community with five computers in the library for public use during library hours. During 2017, 2,317 patrons logged on to the public computers and 10,578 people used the Wi-Fi connection. During 2017 Pettee experienced 800,211 website visits. The librarians will help patrons access the Internet, hook up to the Wi-Fi, or assist with portable devices. E-books are free and downloadable through the library website.

The library is cramped for many of its activities. Many of the children’s activities take place outside of the library for lack of space for the large number of participants. In both June and August of 2015 the library held community planning meetings to better define the library’s future role in the community and how to proceed with regards to space and function. The policies and action plans that evolved from these meetings have been prioritized and a comprehensive strategic plan was accepted.

The library is currently open seven days a week, with varying hours each day. More library information can be found on the website: petteelibrary.org.

Town Facilities

Town buildings provide space for the majority of Town services. In addition, they provide space for groups that provide a variety of services to the public. Some Town buildings are in need of relocation due to their being within the flood plain. Current structures are lacking in regard to accessibility, code conformance and energy efficiency.

The majority of people attending the January 23, 2016 strategic planning meeting expressed a strong desire to improve community facilities to include a community center as a gathering place for community events, and for a town green/town common as a gathering place for community members, both formally in community events and informally as a place to meet and greet neighbors. With a town center characterized as an intersection of two major traffic arteries, many in town who attended expressed a need to build on a sense of community, a sense of “place,” a place to feel connected to and a place to connect with each other. They believe the character and strength of the community will benefit strongly from developing a more physical and emotional core community. The preferred location was in the vicinity of the old high school. The town is exploring opportunities for development of more community facilities in a centrally located community center.

The Wilmington Town hall, located at 2 East Main Street in downtown Wilmington, currently houses the Police Department, Town Clerk's office and the Administrative offices. The Town Manager, Listers, Zoning Administrator, Select Board, Finance, and several other town committees use the Town Meeting Room to hold their meetings or conduct business as well. The Town Garage is now located at 21 Haystack Road and the Fire Station is located at 18 Beaver Street.

Recreational facilities owned and maintained by the Town include the Town Common on Lisle Hill Road, which is the original site of the town, Buzzy Towne Park located on South Main Street, River Bank Park on Main Street and Green Mountain Beach on Lake Raponda. Wilmington also has extensive hiking and biking trails which are being constructed and maintained with help from the Trails Committee.

Wilmington has four town-owned cemeteries; Riverview on Stowe Hill Road, Intervale, also known as Cuttings, located on the corner of Smith and Davis Road, Averill on Route 9, and Restland, which is located in the center of town behind St Mary's In-the-Mountains Episcopal church. There are several small cemeteries throughout the valley which are within private property.

The Town-owned Memorial Hall, c.1902, is available for public and private events.

Child Care

Child care and early childhood education are important components of the Wilmington community and its future. Ensuring accessible, affordable, quality child care is vital. Availability of child care services can have a direct effect on the vitality of the Town by encouraging young families to locate and remain in Wilmington. With the number of families in which both adults work outside the home increasing, the demand for child care services has also increased.

As of June 2014 the Vermont Department for Children and Families Bright Futures Child Care Information System reported that there were two licensed child care providers (Twin Valley Elementary School and Hermitage Club LLC) and four registered child care homes in Wilmington. There are also licensed providers and registered child care homes in neighboring towns.

The local demand for child care services is difficult to measure, but the following statistics might shed light on possible need for child care. In 2010 20.6% (386) of the population was under the age of 19, whereas in 2000, 22.2% (480) of the population was under the age of 18. While older data cut-off was at 18, one year less than the 2010 data, the volume still reflected a higher percentage of the population than those under 19 in 2010. This reflects a very significant drop in the youth population. In 2010 4.7% (88) were under the age of 5. This is similar to the under 5 population of 2000 with 4.5% (101) under the age of five. This would imply that the decline in 0 – 19 is primarily in the 5-19 population. In 1990, 7.1% (140) of the population was under age five. This reflects a sizable drop in the 0-5 population in the 10 years from 1990 - 2000.

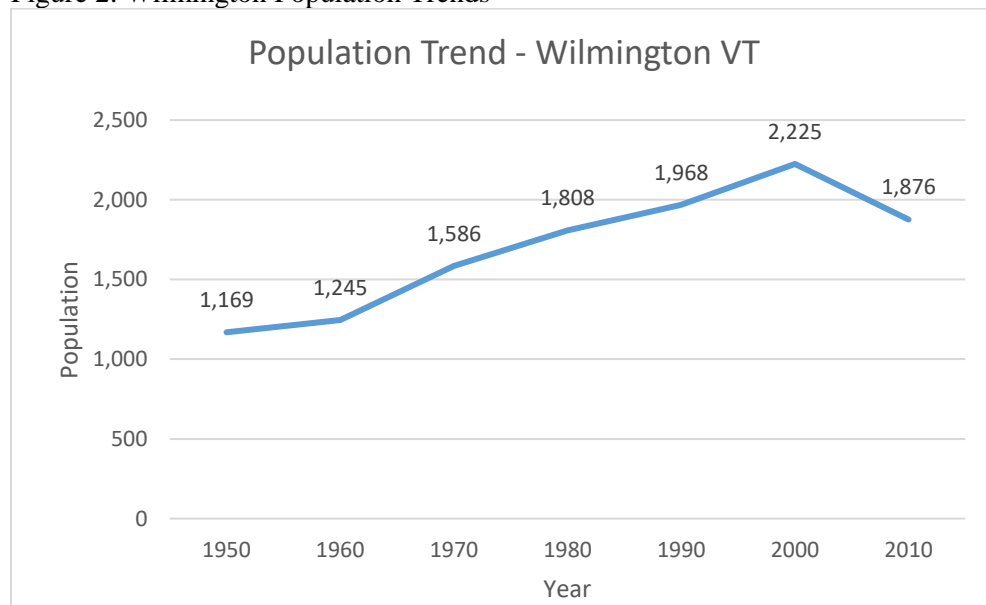
In 2010 there were 502 family households (58% of 866 households) in Wilmington having children under the age of 19.

Population Trends

Population Growth and Projections

Overall, Wilmington’s population had steadily increased between 1950 and 2000. The most significant increase in population occurred during the period 1960-1970 (27%). By 2000, the population of Wilmington had grown to 2,225 permanent residents. Between 2000 and 2010, however, the town experienced a decline in population, exacerbated by subsequent loss of tourism and business failures post-Tropical Storm Irene in 2011. Population trends are found in Figure 4.

Figure 2: Wilmington Population Trends



Data Source:
 1970 - 2000 Data: Vermont Indicators,
<http://vcgi.org/indicators>
 2010 Data: 2010 Census, Demographic Profile

Figure 3 shows Wilmington’s growth as compared with data from its neighboring towns. Both Wilmington and Dover have experienced double digit declines in population, while Halifax and Readsboro have also experienced declines to a lesser degree. Other comparisons towns continue to experience growth trends.

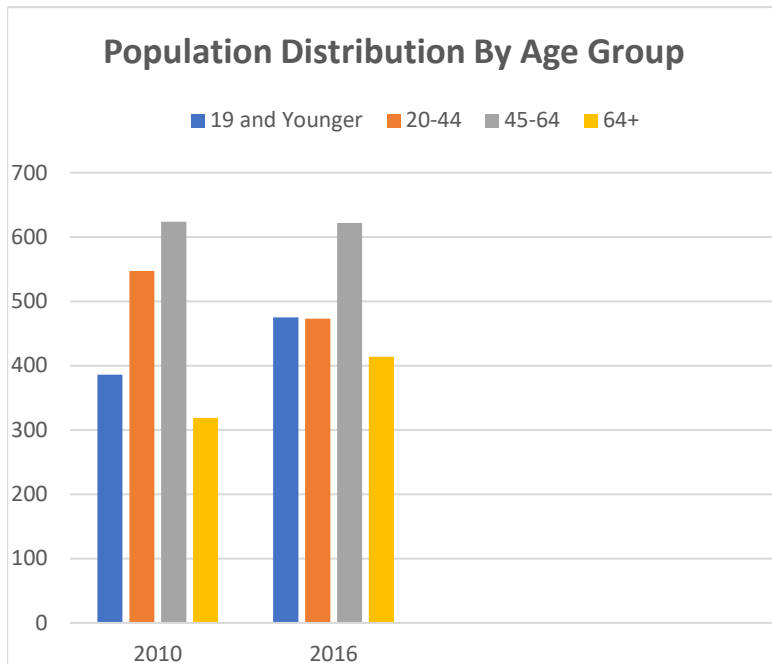
Figure 3: Population Trends in Nearby Towns

<i>Town</i>	<i>1990</i>	<i>2000</i>	<i>2010</i>	<i>% Change 1990-2000</i>	<i>% Change 2000-2010</i>
Wilmington	1,968	2,225	1,876	13%	-16%
Dover	994	1,410	1,124	42%	-20%
Halifax	588	782	728	33%	-7%
Marlboro	924	978	1,078	6%	10%
Readsboro	762	809	763	6%	-5%
Searsburg	85	96	109	13%	14%
Whitingham	1,177	1,298	1,357	10%	5%

Source: U.S. Bureau of the Census

Age Distribution

Figure 4: Population by Age Group



Source: U.S. Bureau of the Census/Factfinder.com

Figure 4 shows the current distribution of Wilmington’s residents by age. The following observations can be made from the data:

- The largest age banded group is the 45 – 64 year olds, indicating a significant number of people who will likely enter retirement within the next ten to twenty years (those ages 45-59).
- Since the 2010 US Census, there has been a slight increase in the 19 and younger age group. The 20-44 has decreased slightly and the 45 and over has remained moderately stable. It is likely limited job opportunity and massive business closing after Tropical Storm Irene has resulted in more of the young leaving for greater career opportunity.

Aging

Figure 5: Age Distribution of Population

Population Distribution	Population Under Age 19	Percentage of Population	Actual #
	Under 5 years only	4.7%	88
	5 to 19 years old only	15.9%	298
	20 – 64 years old	62.4%	1,171
Total Population 1876	65 and older	17.0%	319

Figure 6: Families with Children Under 19

Households with Children	Households with Children	Percentage of Total Households	Actual #
	Total With Children Under 19	58.0%	502
	Female head of house/no male w/ children under 19 Total Female (no Male) Home 71	5.9% of Total 71.8% of Female Head House	51
	Male head of house/no female w/ children under 19 Total Male (no Female) Home 36	2.7% of Total 63.9 of Male Head House	23
Total Households 866 Family Households 502 (58% of all Households)	Male/Female house w/ children under 19 Total Husband/Wife Home 395	13.7% of Total 30.1 % of Male/Female Homes	119

Figure 7: Living alone Population

Living Single and Living Single over age 65	Living Alone	Percentage of Live Alone Population	Actual #
	Male	52.5%	149
	Male age 65 and older	10.9%	31
	Female	47.5%	135
Total Living Alone 284 (33% of Total Households) (Total Non-Family Homes 364)	Female age 65 and older	19.0%	54

(Source: 2010 US Census)

2012-2016 American Community Survey 5-Year Estimate

Figure 8: Age Distribution of Population

Population Distribution	Population	Percentage of Population	Actual #
	Under Age 18		
	Under 5 years only	4.3%	85
	5 to 19 years old only	19.6%	390
	20 – 64 years old	55.2%	1,095
Total Population 1876	65 and older	20.8%	414

Figure 9: Families with Children Under 19

Households with Children	Households with Children	Percentage of Total Households	Actual #
	Total With Children Under 18	60%	534
	Female head of house/no male w/ children under 18 Total Female (no Male) Home 70	5.6% of Total 42.9% of Female Head House	30
	Male head of house/no female w/ children under 18 Total Male (no Female) Home 27	2.9% of Total 59.2% of Male Head House	16
Total Households 869 Family Households 534 (60% of all Households)	Male/Female house w/ children under 18 Total Husband/Wife Home 437	30.9% of Total 37.7 % of Male/Female Homes	165

Figure 10: Living alone Population

Living Single	Living Alone	Percentage of Live Alone Population	Actual #
Total Living Alone 267 (30% of Total Households) (Total Non-Family Homes 355)	Age 65 and older	30.3%	

Of the 502 households with children under 19:

- 71 or 8.1% of Total Households were female headed (Windham Region is 6.19%)
- 36 or 4% were male headed households with no female (Windham Region is 2.78%)
- 395 or 46% were male and female households (Windham Region is 45.14%)

The percentage of single parent head of house in Wilmington is slightly higher than the Windham Region overall.

Elder Care

With 284 single – living alone households (33% of all households) and 85 of those over the age of 65 (31 male, 54 female), elder care considerations are vital to the community.

Other at Risk Populations

Youth Programs

Deerfield Valley Community Partnership (DVCP):

DVCP is in its 20th year working to address alcohol, tobacco, and drug abuse. DVCP provides:

- Programming and activities for parents and middle/high school students
- Drug and alcohol awareness education and activities in the community

Monthly meetings are held, with community participation of adults and young adults encouraged. Environmental initiatives are funded through state grants. Town funds assist in costs for youth and parent programming.

Wings Community Programs:

Wings Community Programs provides creative academic, enrichment, and physical/wellness afterschool activities to all children and their families within the Windham Southwest Supervisory Union. Wings actively engages students in experiences to help them be successful in school and in life as they grow into productive adults

Wilmington Recreation Summer Programs:

- Wilmington Middle School Summer Recreation Program provides four weeks of programs, activities and trips for youth in grades 6-8.
- Celebrate Summer Elementary Program- In collaboration with Wings Community Programs, the Wilmington Recreation Commission offers a 4 week, full-day summer program for youth entering grades K-5.

The Disabled

Reported number of non-institutionalized disabled in Wilmington over the age of 5, 2009-2013:

Figure 11: Disabled Population

Age 5-17 = 11	Age 18 – 64 = 10	Age 65 and over = 24
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Data Source: Vermont Housing Data, www.housingdata.org

Families First:

Founded in 1996, Families First is a 501 (c)(3) non-profit organization committed to helping special needs children (who are medically fragile, developmentally delayed, and those who have mental health issues) and their families in Windham County in south eastern Vermont. Families First services promote independent living, enhance self-esteem, and cultivate community membership through caring and respectful relationships.

Poverty

Wilmington has 139 residents reported to be below the federal poverty level, an estimated 5% of a population of 2,554 as reported 2009 – 2013. Data Source: Vermont Housing Data, www.housingdata.org [Note: Wilmington’s population of 1,876 in 2010 as reported by the U.S. Census, with a declining overall population trend, call into question the accuracy of the total population reported by this source.]

Figure 12: Poverty Source: www.City-Data.com:

Residents with income below the poverty level in 2009: Wilmington:9.3% Whole state:9.4%	Residents with income below 50% of the poverty level in 2009: Wilmington:3.6% Whole state:3.6%
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The Food Pantry: serves an estimated 100 families for 200+ people, servicing the greater Wilmington area including surrounding towns.

Deerfield Valley Community Cares (DVCC): helps citizens of the Deerfield Valley region with payment of home fuel bills. In the 2016-2017 heating season they provided \$61,014 in assistance to 88 families, of which \$17,420 went to 26 Wilmington residents. In the 2015-2016 heating season they provided \$55,821 in assistance to 65 families.

Southern Vermont Community Action (SEVCA) supports Head Start, weatherization programs, emergency home repair, fuel/utility/housing/ food assistance, micro-business management support, individual development accounts, tax preparation, work resource coordination, VT Health Connect navigation, disaster recovery, and running a thrift store. Housing assistance includes referrals to area shelters, landlord lists, and assistance in completing applications. SEVCA is an anti-poverty, community-based, non-profit organization serving Windham and Windsor counties since 1965. Their goals are to:

- Enable people to cope with and reduce the hardship of poverty

- Create sustainable self-sufficiency
- Reduce the causes of poverty
- Move toward elimination of poverty

Windham and Windsor Housing Trust: provides income-eligible homebuyers with a subsidy towards the purchase of a qualifying home. Homebuyers under this program have access to below market rate mortgages as well as financial assistance with closing costs.

West River Habitat for Humanity (WRHFH): sells homes to low-income individuals and families at no profit and much below market cost. They do this through volunteer labor, donations of money and materials, help of the homeowner (partner) families, and affordable financing of loans. Three (3) units have been built in Wilmington housing one (1) single parent household and two (2) couples with 2-4 children.

Education

Elementary Education

Elementary education in Wilmington (pre-K through grade 5) is provided at the Twin Valley Elementary School. This school was formed for the school year 2013-2014 with the merging of Whitingham and Wilmington elementary students in a renovated former Deerfield Valley Elementary School. The Twin Valley Elementary School also hosts the Center Base Program, an initiative to service students with multiple disabilities residing in any of the six towns surrounding Wilmington. The Windham Southwest Supervisory Union provides administrative, curriculum, and personnel support for a number of school districts, including Wilmington. Comparisons of student numbers are difficult with the combination of schools and increase in functionality, but the former elementary school enrollment had experienced a steady decline since the peak of 173 students in the 2004-2005 school year. In the 2012-2013 school year, there was an enrollment of 139 students, only 80% of the peak year. For the year 2013-2014, there were 234 students enrolled in the new Twin Valley Elementary school, 129 of whom were Wilmington residents.

The Deerfield Valley Elementary School enrollment K – 5 for the past four years is as follows:

Figure 13: Elementary School Enrollment

	2004-2005	2008-2009	2014-2015	2015-2016	2016-2017	2017-2018
Total School Enrollment	173	164	189 *	183	174	174

(Source: Vermont Department of Education School Report)

* 2014-2015 reflects combined Twin Valley Enrollment. Wilmington school board reports 2013-2014 enrollment of 129.

Middle and High School Education

In the spring of 2004, the towns of Wilmington and Whitingham made an agreement to merge their middle and high school. The Twin Valley Middle School, serving students in grades 6 – 8 was located in the same building as the Whitingham Elementary School. The Twin Valley High School, serving students in grades 9 – 12, was located in Wilmington. The education of both was

overseen by the Twin Valley School Board, consisting of five school directors, three of which are representatives from Wilmington. Because of declining enrollment since the merger in 2004 (nearly 25% from 2004 to 2009) and because of the numerous structural limitations of the Wilmington high school building, the school district actively studied multiple options. They recommended further consolidation of the schools which was approved by both towns and resulted in the closure of the Wilmington high school facility.

School year 2014-2015, the first year of school consolidation, has been a trying year of construction and change, but is deemed a success by students and teachers alike. The new Twin Valley Middle/High School is located in the newly renovated former Whitingham Elementary Middle School facility.

Figure 14: Middle (6 – 8) and High School (9 – 12) Enrollment

Enrollment	2004-2005	2008-2009	2014-2015*	2015-2016	2016-2017	2017-2018
Middle School	132	122	104	94	83	83
High School	274	188	154	139	146	126

(Source: Vermont Department of Education School Report)

* 2014-2015 reflects the beginning of school consolidation.

Years of Education Completed: those 25 years and over in Wilmington

- High school or higher: 90.7%
- Bachelor's degree or higher: 31.1%
- Graduate or professional degree: 11.4%

Data Source: www.city-data.com

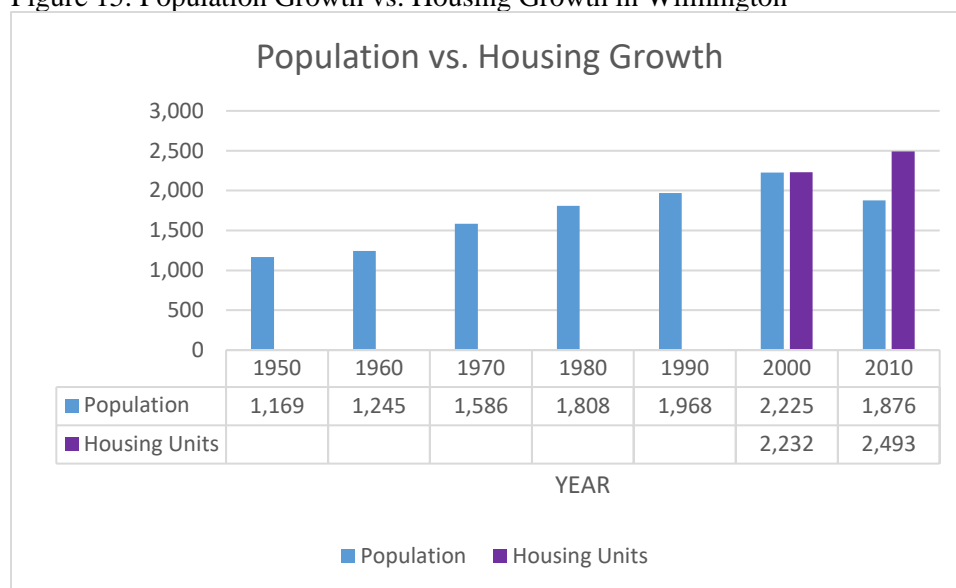
Career Education and Lifelong Learning

Career education opportunities are available to Wilmington’s high school students and adults at the Windham Regional Career Center in Brattleboro, attached to the Brattleboro Union High School. The Community College of Vermont, at its learning centers in Brattleboro and Bennington, offers associate degrees, career-related certificates, and credit and non-credit training programs. Another opportunity is the Osher Lifelong Learning Institute in Brattleboro. This is a community-driven membership organization, dedicated to providing learning opportunities for people 50 and older who are interested in engaging in learning experiences without tests, papers, or grades. The Institute is affiliated with the University of Vermont, with leadership coming from local community members. A series of lectures are held each semester at the Southeast Vermont Learning Collaborative in Dummerston.

Housing

During the period from 1970 through 2000, 1,315 new housing units were built in Wilmington with population growth outpacing housing growth through 1970. Since 1970 population and housing grew at a relatively consistent pace. 2000 – 2010 has seen a dramatic shift in this trend. There has been an increase of 261 housing units while experiencing a reduction of 349 in population. This is a reflection of the shift toward second-home owners. Figure 7 presents data on housing unit growth as compared to the population growth. The high housing unit growth rates from 1970 to 1990 appear to have leveled off in the 1990’s but has taken a strong upturn in 2010, with housing units far outpacing population.

Figure 15: Population Growth vs. Housing Growth in Wilmington



Note: Housing Units not available prior to 2000.

Population Data Source:

1970 - 2000 Data: Vermont Indicators, <http://vcgi.org/indicators>

2010 Data: 2010 Census, Demographic Profile

Housing Unites Data Source:

Vermont Housing Data, www.housingdata.org

U.S. Census data on local permits estimates that an additional 12 housing units were granted permits between 2010 and 2012, all single family dwellings. (Vermont Housing Data, www.housingdata.org). This is a significant decline over the strong growth years of 2002 – 2006.

Figure 16: Housing Permits Issued

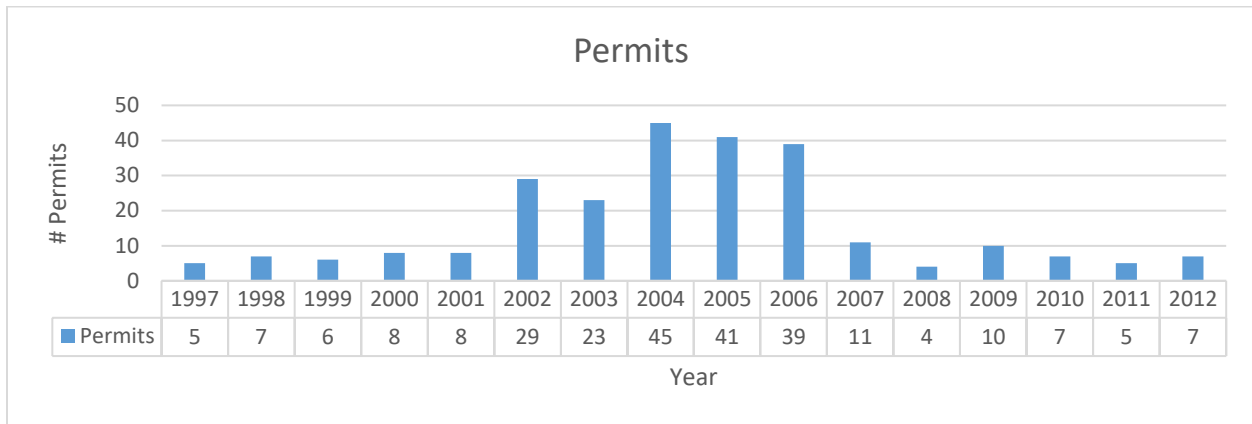
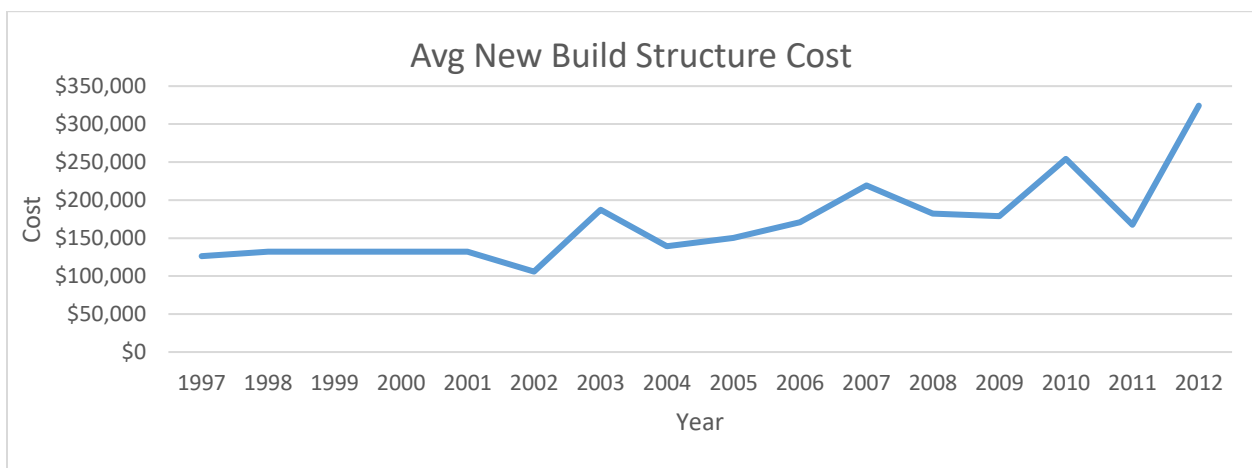


Figure 17: Average New Build Structure Cost



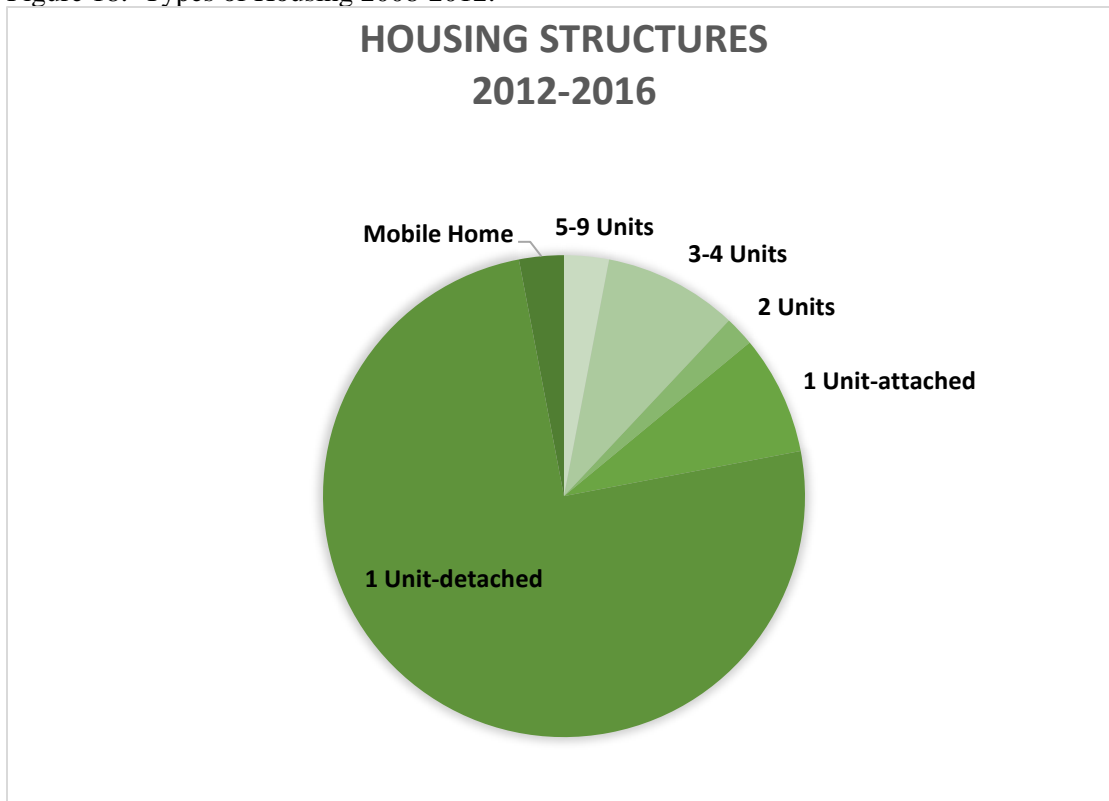
Data Source: www.city-data.com

These charts reflect two notable trends:

1. Strong growth years 2002 – 2006 and
2. A strong upturn in average cost of new builds in 2012. This is likely tied to the growth of Hermitage HIREHC, an upscale private membership club.

Most of Wilmington’s residents live in single family detached dwellings (see Figure 18).

Figure 18: Types of Housing 2008-2012:



Source: American Community Survey

Wilmington’s population steadily increased between 1950 and 2009. The most significant increase in population occurred during the period 1960-1970 (27%). Between 1990 and 2000, the Town’s population increased by 257 people, a 13% increase. In 2000, the U.S. Census documented that 2,225 people lived in Wilmington and in 2007 the population was estimated to be 2,355. Between 2009 and 2010, however, the town experienced a decline in population, exacerbated by subsequent loss of tourism and business failures pre-Tropical Storm Irene in 2011.

For additional information and statistics about housing in Wilmington, see the Community Profile section.

Some key housing figures from the 2010 US Census include:

- Housing units increased by 261 from 2000 to 2010, while population continues a downward trend.
- Sixty two percent (62%) of the housing units were for seasonal, recreation or occasional use in 2010, up from fifty-three percent (53%) in 2000.
- In 2010 of 866 occupied housing units, 300 or just under one third were renter occupied. This was roughly same percentage as in 2000, with 992 year round occupied housing units, of which 319 were renter occupied.

Figure 19: Housing Occupied vs. Vacant 2000 and 2010

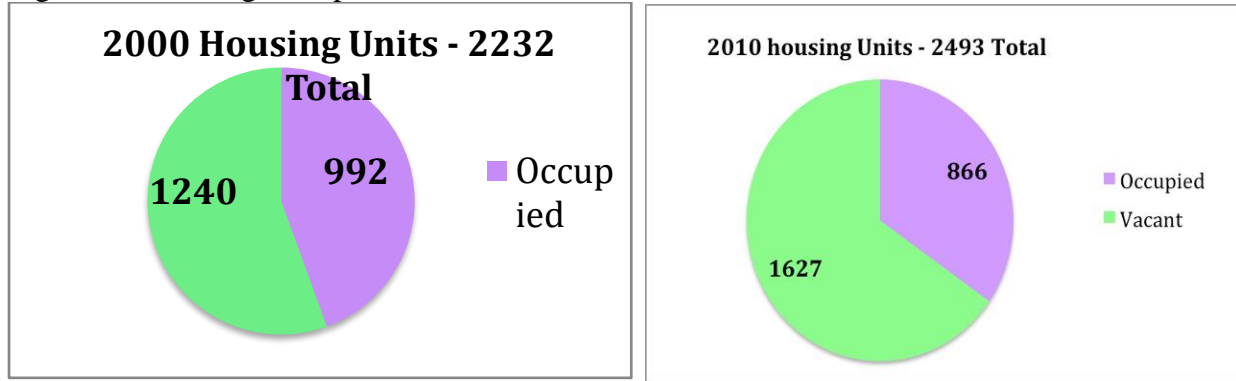
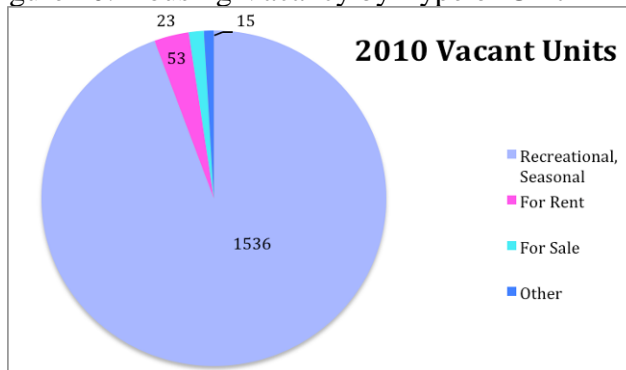


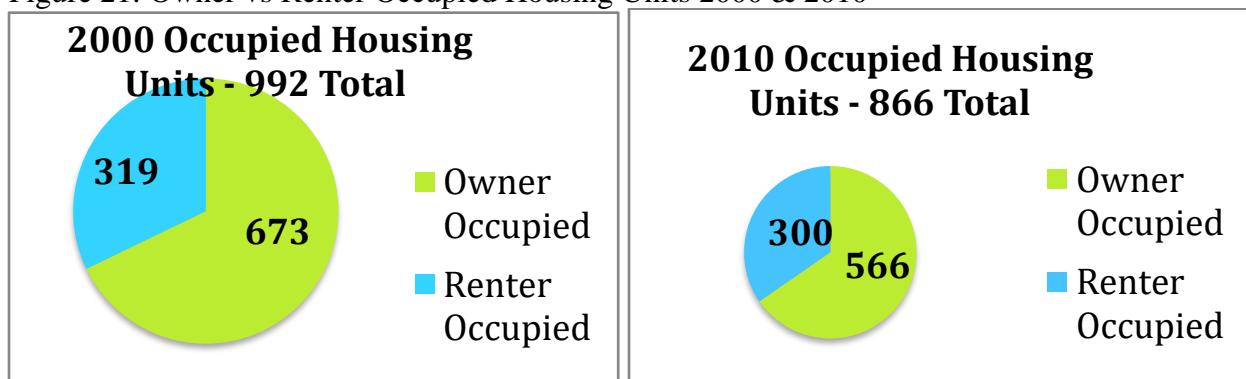
Figure 20: Housing Vacancy by Type of Unit



Data Source: Vermont Housing Data, www.housingdata.org

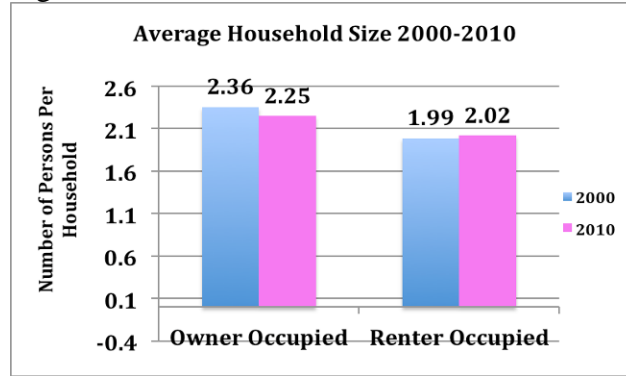
Of the 1,627 vacant home, 1,536 or 94% are seasonal, recreational, or occasional use homes. This represents 62% of the 2,493 total housing units. That is up 10% from the 2010 Town Plan where it was reported to be 52.2% of the total housing stock. While the 2010 Town Plan observed a decrease in the vacation/seasonal housing supply from 1990 to 2000 by 102 units, 2000 to 2010 has seen an increase of 368 units, reflecting the shift toward second-home owners.

Figure 21: Owner vs Renter Occupied Housing Units 2000 & 2010



Data Source: Vermont Housing Data, www.housingdata.org

Figure 22: Average Household Size



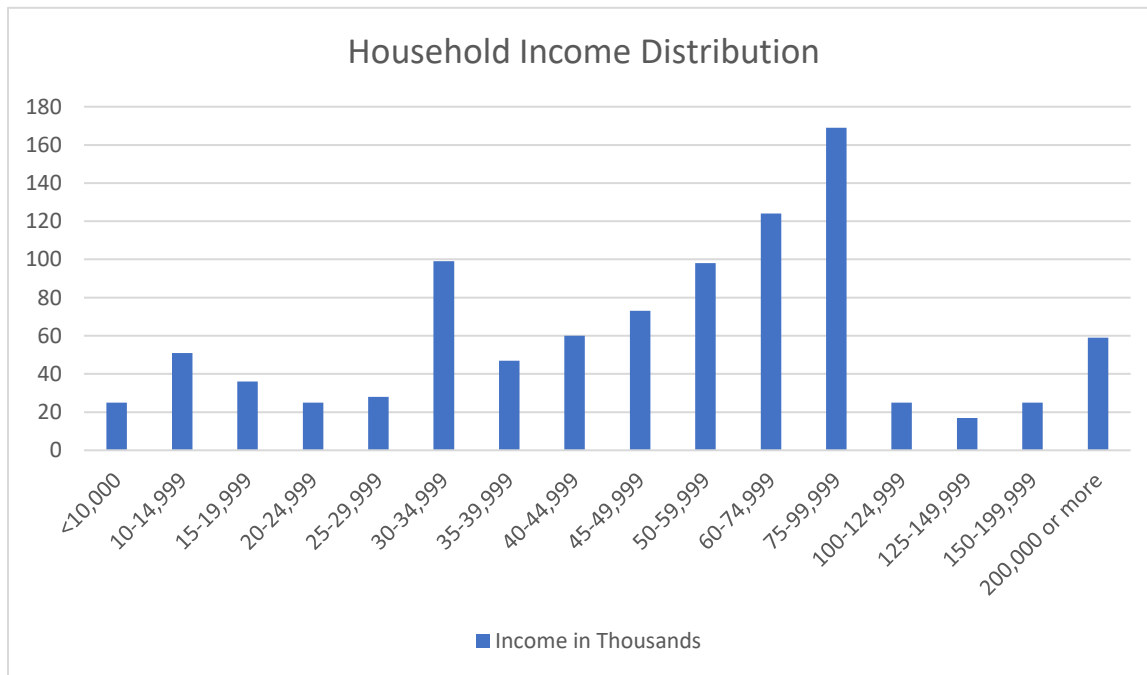
Data Source: 2000 and 2010 SF1 Profile of General Demographic Characteristics, <http://factfinder2.census.gov>

Housing Affordability

Estimated median household income in 2016
 (Median = 50% of the population fall below this number):

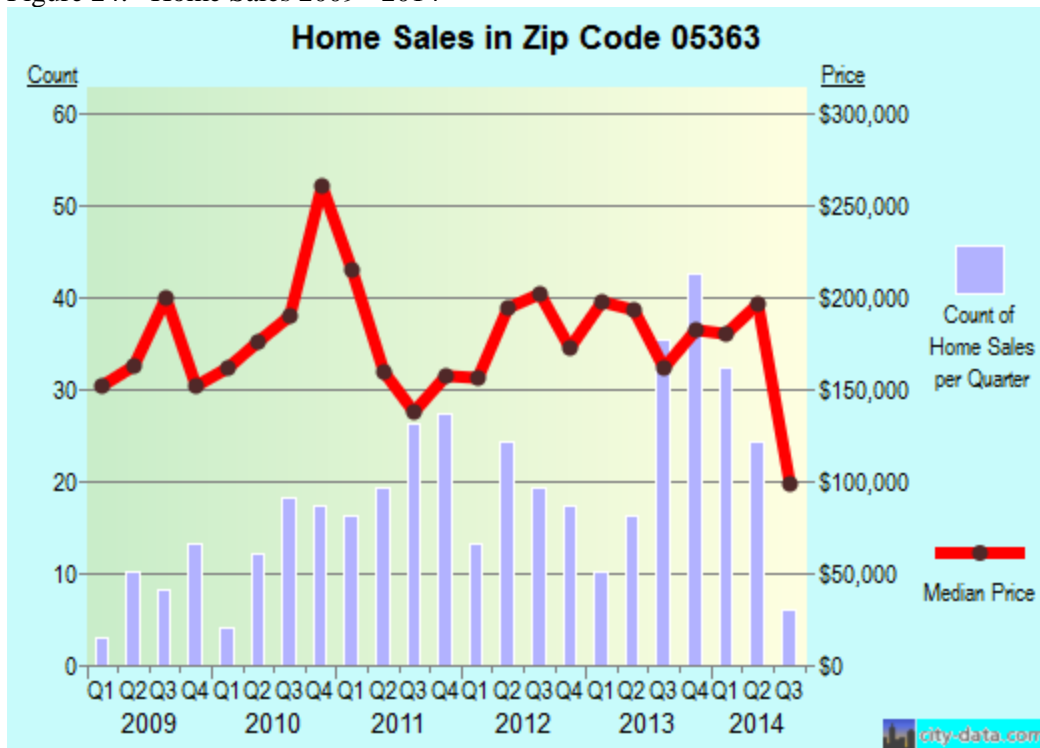
2016 Wilmington \$51,238 (Vermont \$57,677)
 2012 Wilmington \$48,932

Figure 23: Household Income



Data Source: www.city-data.com

Figure 24: Home Sales 2009 - 2014



The above data is reflective of a sharp dip in the real estate market in Wilmington in the 3rd quarter of 2014. While the real estate market is starting to rise again, the current state of the market remains down.

While home prices have fallen significantly, it is important to note that homeownership costs are increasing. Raw materials and labor costs for construction and maintenance have increased, telephone and other communication services costs have increased, and heating costs have increased substantially

Data Source: www.City-Data.com

Estimated median house or condo value:

2016: \$265,268 (Vermont \$223,700)

2012: Wilmington \$224,993

Mean prices in 2009:

\$296,993: All housing units

\$304,435: Detached houses

\$196,729: Townhouses or other attached units

\$288,202: In 2-unit structures

\$214,585: 3-to-4-unit structures

\$540,848: 5-or-more-unit structures

\$112,347: Mobile homes

Wilmington continues to have a high number of vacation homes, usually with the cost much higher than a home bought for a primary residence.

Two subsets of the Wilmington population that may be struggling to afford housing in the community are elderly on a fixed income and single parent families. The 2010 Census indicated that of the 284 householders living alone, 85 of them (30%) were over the age of 65. There were 135 single female heads of household (16 % of all households) in Wilmington in 2010. 51 of these or 38% had children living with them under 19 years of age. (Refer to page 54 for more details on the 2010 census results.)

Special Needs Population Housing

The special needs population for the purposes of a housing analysis includes physically and mentally impaired persons and the homeless. In addition to requiring certain services that differ from the typical households (i.e., physical accessibility, assisted living), these groups also tend to have limited potential for income. Butterfield Common in nearby Dover offers these services.

Affordable and Community Housing Programs

Currently, Affordable Housing in Wilmington, as defined by the Department of Health and Human Services, is addressed through regional programs. The Windham and Windsor Housing Trust has created and manages affordable housing through a variety of programs that serve low and moderate income residents. They have seven (7) units of affordable housing at the Laterre House in downtown Wilmington, as well as two (2) units of shared equity home ownership in the Roundhouse on Shafter Street and 33 units in nearby Dover, with 4 affordable condos.

Resources available to support housing for low-income families are described on page 57 of this document.

Housing Needs

It is important to assure that existing and future town residents and the workforce are served by a range of housing opportunities. With a trend over the past few years toward more costly homes and an influx of second homeowners, the town will have to play a very active role in ensuring that Wilmington maintains a diversity of housing options and social support services for its moderate and lower income residents. Maintaining diversity of residents and income levels will ensure an interesting and welcoming community for all.

The Wilmington Housing Advisory Committee conducted a survey at the November 2008 elections as voters exited the polls. It also sent the survey to registered voters who did not take the survey at the poll. Four hundred and forty one (441) surveys were returned, which represents approximately 18% of Wilmington's residents. No more recent surveys have been conducted, so the 2008 data will serve as the most recent study on housing affordability.

This study of housing does not speak to Affordable Housing as defined by the U.S. Government Department of Health and Human Services. Rather, this study speaks to the perceived affordability of housing by residents of the town.

From the surveys collected the data shows that respondents are generally satisfied with the housing that they are currently in and for the most part they consider it affordable. A larger majority of respondents said that if affordable housing were available closer to town they would

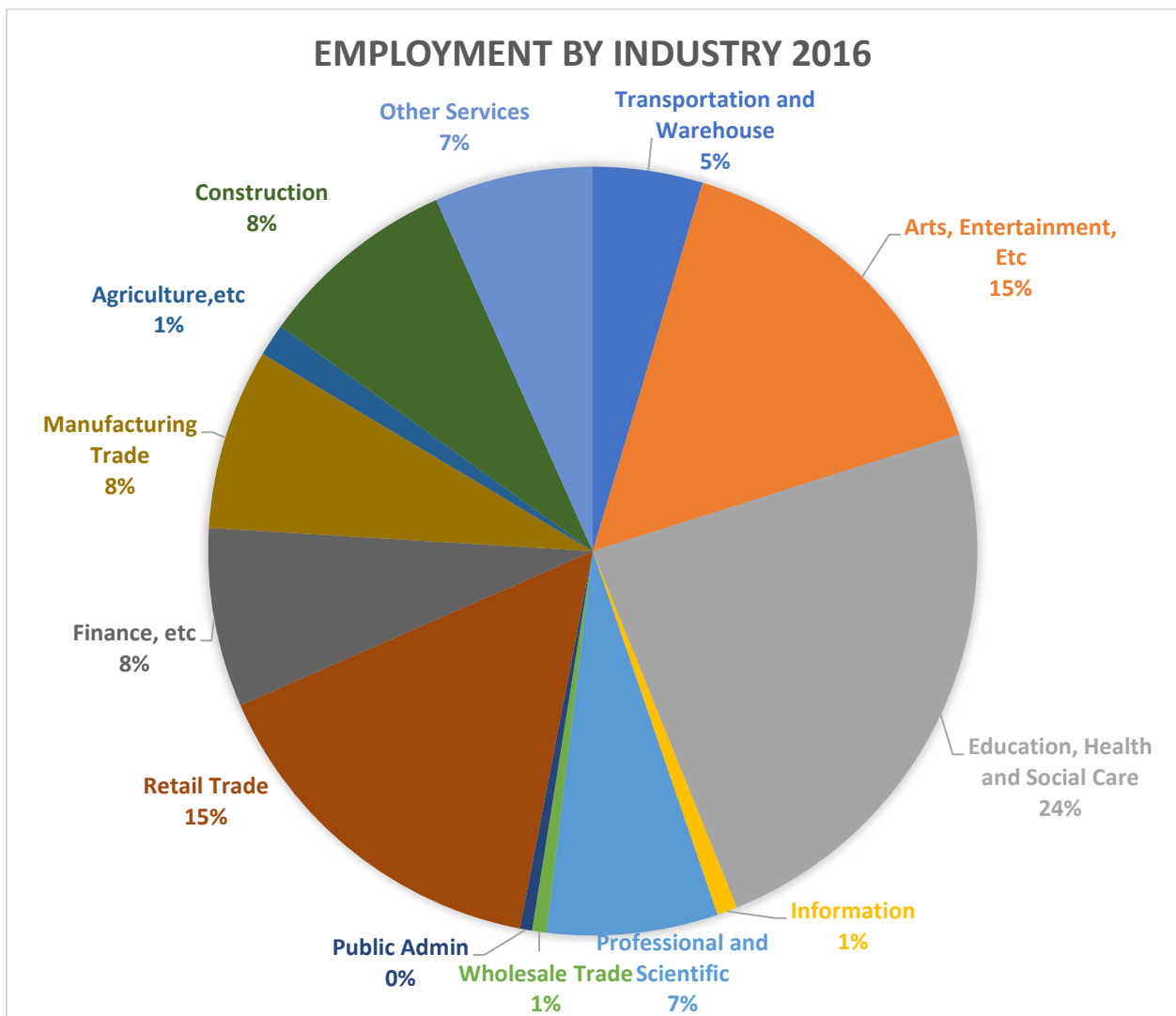
consider moving. Lastly, 85% of the respondents were interested in more affordable ownership opportunities, as opposed to rental opportunities.

Employment, Income, and The Workforce

Employment

Based on this data source covering 2016, Wilmington’s largest sources of employment are Education, Health and Social Care (24%), Arts and Entertainment (15%), and Retail (15%.) This reflects on Wilmington’s shift from a once agriculturally based town (Agriculture currently represents only 1% of the overall employment of the town), to a largely tourism based town providing recreation, retail, and second home ownership and related services.

Figure 25: Employment by Industry



Source: Fact Finder/U.S. Census Bureau

In 2004, there were approximately 156 establishments in the community employing 1,297 workers in a variety of industries and jobs. The largest percentage of the businesses in Wilmington were in the accommodation/food and retail sectors.

Data Source: Fact Finder
 2004 Business Patterns
www.factfinder.com

Figure 26: # Business and # Employees 2004 vs. 2013

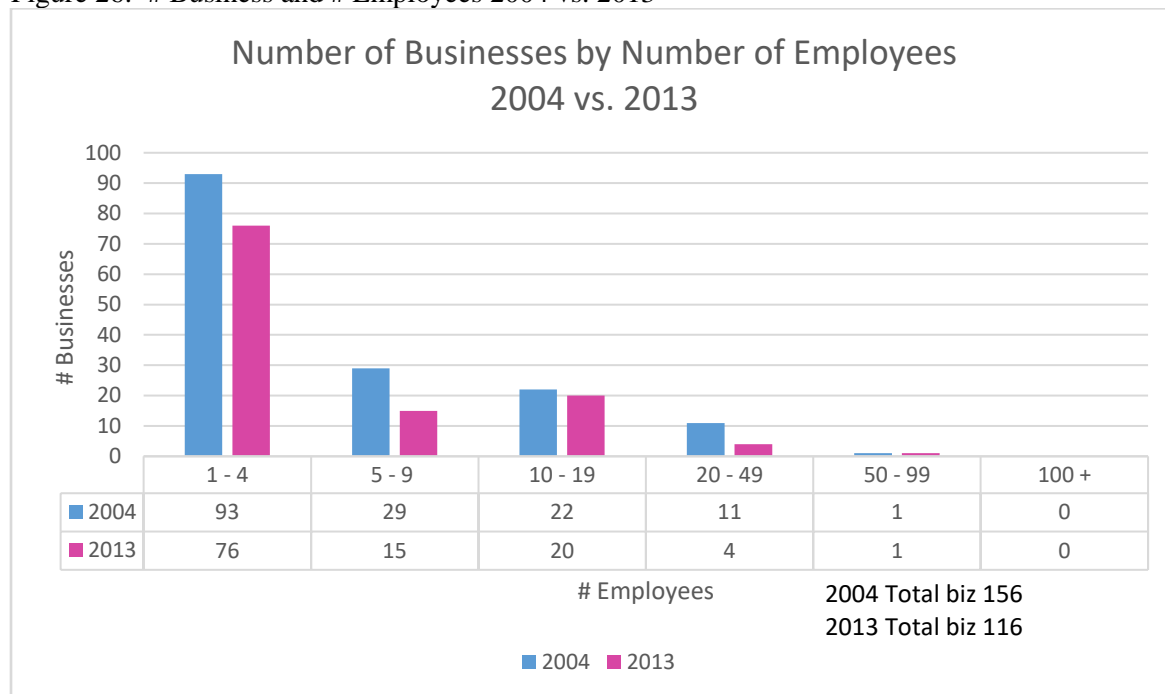
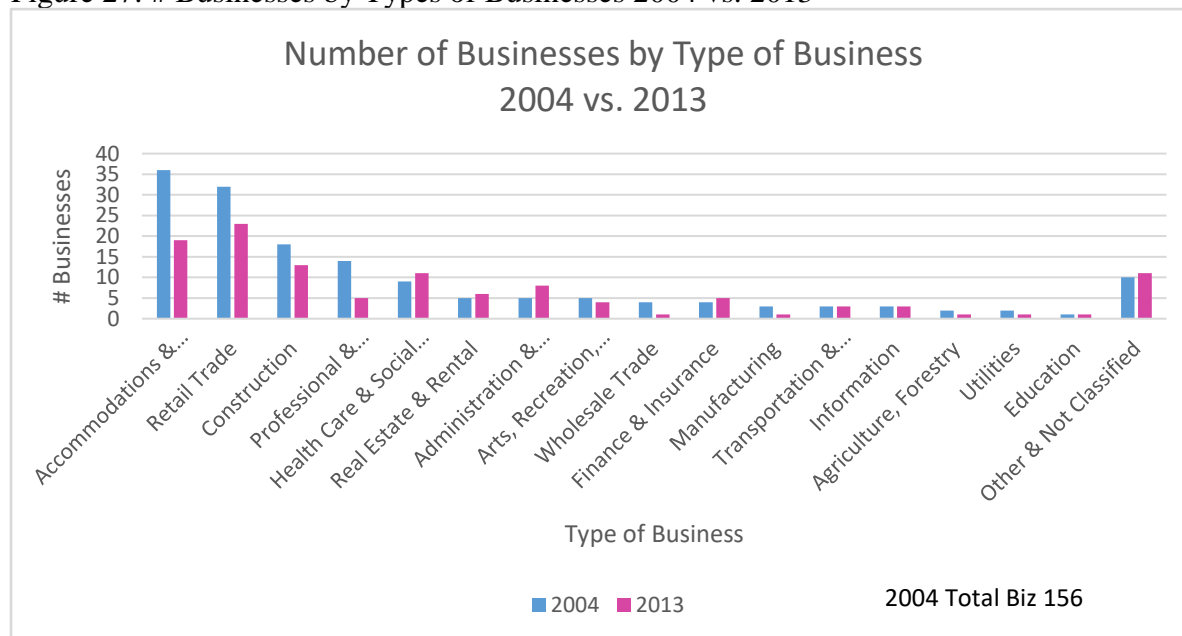


Figure 27: # Businesses by Types of Businesses 2004 vs. 2013



Data Source: Fact Finder: 2004 & 2013 Business Patterns www.factfinder.com

Figures 26 and 27 largely tell the story of the impact of Tropical Storm Irene on the economy of the town. Total Businesses dropped 26 % or 40 businesses between 2004 and 2013 from a total of 156 to 116. While the town has experienced a 15% reduction in population, businesses shrank by 26%. Business came to a halt after Irene and after 5 years is only now starting to regain momentum. Small businesses, especially tourism related businesses, could not endure the down years of no or few tourists.

Income

The Vermont Department of Labor ¹ 2010 annual report indicates there are 1,290 Wilmington residents in the labor force (individuals 16 years and older) with an unemployment rate of 7.9 %. www.city-data.com indicates a June 2014 unemployment rate of 4.8% in Wilmington, 3.7% statewide, suggesting a 3.1% reduction in unemployment. The differing sources of data should be considered when assessing the comparability of these data.

The median household incomes in Wilmington decreased 7% from 1999 – 2009. Approximately 4.8% of Wilmington’s population was below poverty level for the period 2012-2016, a decrease from the 2008-2012 period where it was 5.9%. Figure 27 shows 1979 - 2009 data in relationship to the surrounding towns, Windham County and the State of Vermont, all but one of which experienced an overall reduction in adjusted gross income.

Figure 28: Median Family Adjusted Gross Income by Town 1979 – 2009 (the numbers)

	1979	1989	1999	2009	10 yr. chg.	% Change
Brattleboro	\$39,379	\$44,179	\$41,204	\$38,301	-\$2,903	-7%
Whitingham	\$41,507	\$49,447	\$48,205	\$54,766	\$6,561	14%
Readsboro	\$34,169	\$44,833	\$45,071	\$36,023	-\$9,048	-20%
Marlboro	\$37,789	\$51,776	\$53,350	\$38,977	-\$14,373	-27%
Halifax	\$32,647	\$41,091	\$46,948	\$37,102	-\$9,846	-21%
Dover	\$39,929	\$53,575	\$56,434	\$47,500	-\$8,934	-16%
Wilmington	\$38,354	\$47,293	\$48,156	\$45,536	-\$2,620	-5%

Data Sources:

2005 - 2009 <http://factfinder2.census.gov>

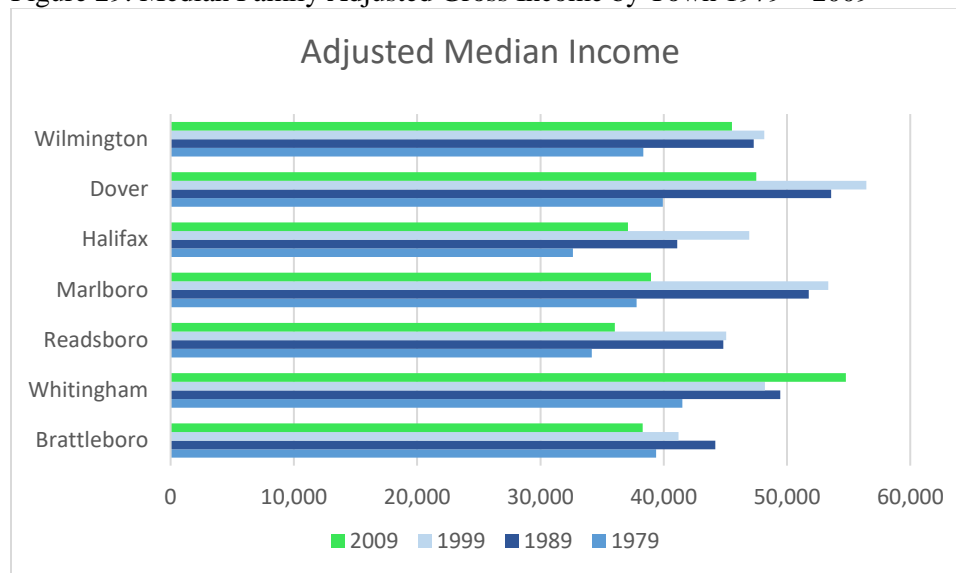
1979, 1989, 1999 Vermont Indicators <http://vcgi.org/indicators>

2009 data source 2005 - 2009 American Community Survey 5 year estimates

CPI: Bureau of Labor Statistics Consumer Price Index History Table

¹ <http://www.vtlni.info/Labforce>

Figure 29: Median Family Adjusted Gross Income by Town 1979 – 2009



Data Source: VT Department of Labor

The Vermont Department of Labor “Covered Employment and Wages” for Wilmington 2013 data reports 120 businesses, with 974 positions of employment in those businesses. The average annual wages for those positions was \$29,843 for \$29,074,393 in Total Wages from all positions in those businesses. This compares to 157 businesses in Wilmington in 2008, employing a total of 1036 people, with annual average wages of \$27,630. While annual wages have increased slightly since 2008, the overall number of businesses has dropped 24% in the 5 years and the number of positions has decreased 6%. While Wilmington was experiencing negative growth prior to Tropical Storm Irene, the size of the negative growth is largely attributable to the flooding and devastation that resulted from that storm.

Figure 25 on page 63 shows the types and diversity of business in Wilmington in 2016. Although these figures provide some insight to the employment picture of Wilmington, this data refers to employees and their wages in firms subject to unemployment laws. Workers not necessarily included are the self-employed, elected officials, employees of certain non-profit organizations, unpaid family members, some agricultural workers and railroad workers.

Our Workforce

Figure 30: Size of Workforce in Wilmington

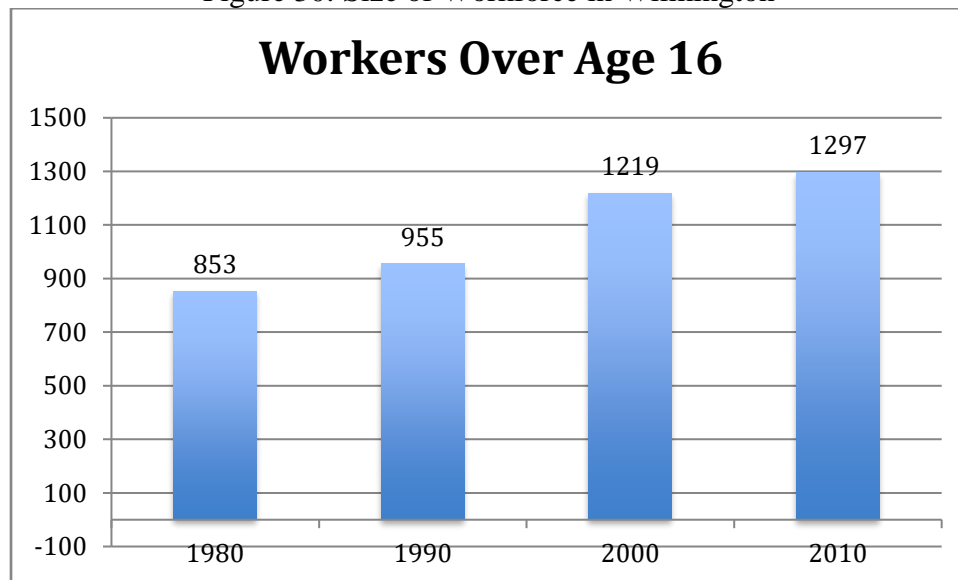
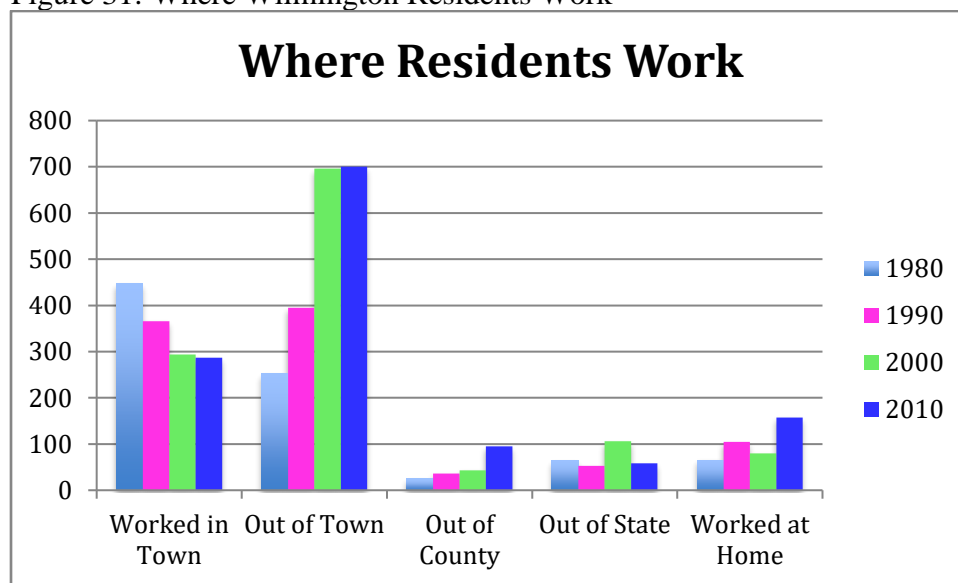


Figure 31: Where Wilmington Residents Work

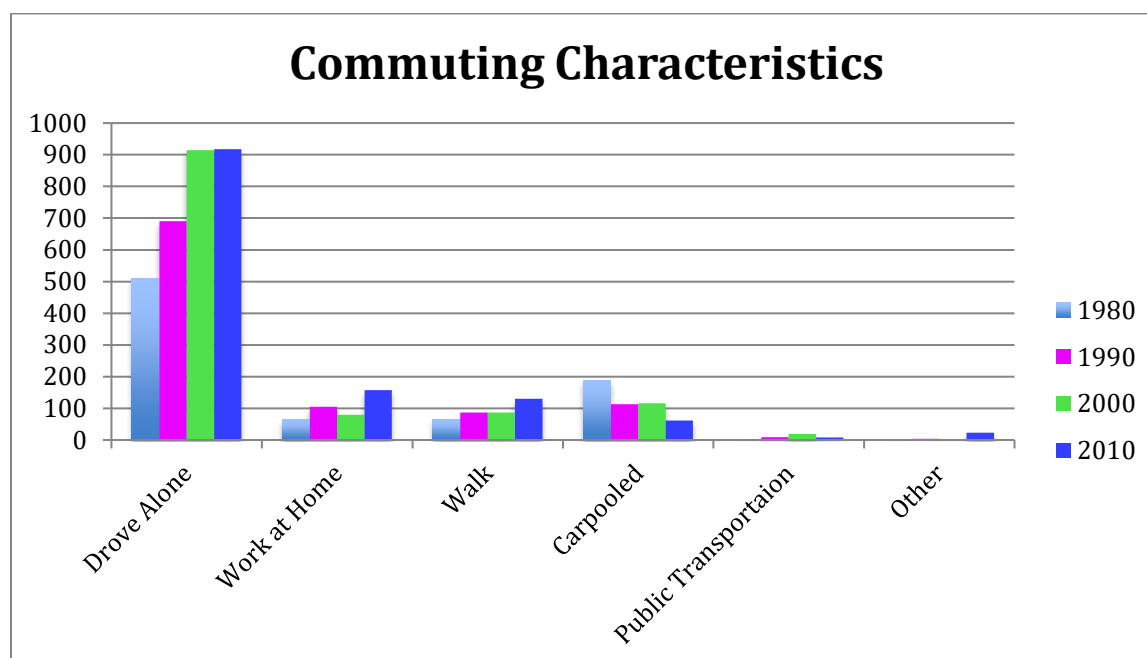


	1980	1990	2000	2010
Worked in Town	447	366	294	287
Out of Town	252	395	696	700
Out of County	25	36	43	95
Out of State	64	53	106	58
Worked at Home	65	105	80	157
Total	853	955	1219	1297

Data Source: Vermont Indicators Website, <http://www.vcgi.org>

The 2010 data suggests that 444 of 1,297 or 34% of all workers work either in the home or in the town. 853 or 66% work out of town.

Figure 32: Commuting Characteristics



Commuting	1980	1990	2000	2010
Drove Alone	511	690	915	918
Work at Home	65	105	80	157
Walk	66	87	87	130
Carpooled	189	113	116	61
Public Transportation	3	9	19	8
Other	0	4	2	23

Data Source: Vermont Indicators Website, <http://www.vcgi.org>

Agriculture and Forestry

One dairy farm and some small agricultural businesses continue to operate. Much of the land used to support the dairy farms of the past has still managed to support the small farms of today. The trend in agriculture throughout the State has been for farmers to seek small-scale, diversified and direct-market opportunities.² Some parcels of land are used for growing grapes for winemaking. Other local food producers are exploring new crops and markets indicating a renewed interest in local farming.

Figure 33: Wilmington Farms by size -1997 to 2007 (updated data not available as of 7/15)

	1997			2007		
	All farms	1 to 49 acres	50 to 999 acres	All farms	1 to 49 acres	50 to 999 acres
Wilmington	15	5	10	15	4	11

(Source: U.S. Census of Agriculture)

Agricultural, forest and pastoral qualities remain important to the Town. Wilmington’s working lands will continue to provide varied opportunities for farm and forestry-related employment.

² University of Vermont Extension, 2006

Not only do these land-based industries provide employment opportunities, but they also contribute to a quality of life and scenic backdrop to the Town of Wilmington.

ECONOMIC DEVELOPMENT

Tropical Storm Irene in 2011 had a devastating impact on the economic stability of the town. Between 2004 - 2013 the total number of businesses dropped 26 % or by 40, from 156 to 116 (see page 68 figure 26). While the town experienced a 15% reduction in population, businesses shrank by 26%. This small, tourism dependent community could not endure the down years of no or few tourists.

Businesses were quick to learn that FEMA disaster recovery grants are not available for commercial purpose. Small Business Association loans and Vermont Economic Development loans were unaffordable to many. Few business owners had flood insurance, due largely to the high price tag. Those with flood insurance experienced lengthy benefit recovery processes. Affordable funding and flood insurance benefit recovery time were contributing factors in the speed with which businesses were able to rebuild and the number of business to endure the disaster.

The recovery process was complicated by the initial shock and chaos, followed by the arrival of and subsequent taking over of the town by the National Guard. As the reality of the situation settled and residents and town officials tried to figure out “what is next.” The recovery was complicated by the absence of transportation routes in and out of town as all major roads and all but a couple of secondary roads were rendered unusable, taking months or in some case years, to repair. Immediate priority shifted to addressing the most basic life needs of those impacted most deeply. Town and social services had to be relocated and reestablished. Building recovery processes had to be defined and communicated to business owners, a process that was initially plagued with miscommunications and misinformation. A temporary ordinance had to be put in place allowing for short term, immediate shoring up of businesses, homes, and environs.

Once money was lined up and building requirements for each situation determined, contractors had to be lined up, materials obtained, and the long rebuilding process started. The town continues with this process to this day.

This life lesson for the town has resulted in a many improved processes and plans, many of which are still in process:

- A more robust emergency management plan
- Relocation of municipal and emergency services such as police and fire is planned
- Many of the most vulnerable buildings downtown have improved flood resiliency features
- Residents and business owners have gained much knowledge of what occurs after a flood and how to navigate these “waters.”

The Town of Wilmington is facing a period of economic transformation. Its topography and clean streams are marked by great beauty and have been attracting visitors for more than a

century. Long dependent on a steady tourist activity for its job base, it is essential, over the long term, that the town begin to expand its base in new directions.³

The citizens, while well educated, are not keeping pace with the educational attainment of other parts of Vermont and New England. In fact, its most highly educated workers, including most of its latest graduates, are seeking employment opportunities outside of the two-town region (Dover/Wilmington). This exodus, coupled with a falling birthrate and an influx of retirees, is contributing to a community of increasingly older citizens.

The citizens are committed to their communities and have, over time, developed means and methods to invest and make a living in an economy that is quite cyclical. Many gain their income by cobbling together seasonal jobs, others commute to nearby centers of employment and still others, through their artisanal and professional skills, are able to successfully operate full time local businesses. With the exception of Mount Snow Ltd. and HIREHC, there are no large businesses in the area. In fact, more than 90% of the companies in the two-town region employ less than five full time workers.⁴

Wilmington Village is a commercial and residential center for the Town of Wilmington. The Village functions as the civic and retail hub of the Deerfield Valley. Wilmington Village is a tourist draw and contributes to the unique cultural, historic, and recreational characteristics that make Vermont such a special place.

The two towns (Dover/Wilmington) are not in a crisis at the moment. However, they are in an economic climate of gradual decline that will only continue if they do nothing. They are able to survive recessions and times of severe distress but are unable to regain that which they have lost and are not growing in new areas. The decline is slow and subtle, but constant. They have no choice but to change if they wish to remain vibrant and maintain their quality of life.

Tri-Town Economic Development Group

In the spring of 2007, the Dover, Whitingham and Wilmington Select Boards voted to approve the creation of a committee to address economic development in the Dover/Whitingham/Wilmington area. In December 2009 a Strategic Economic Development Plan for Dover and Wilmington was completed. In 2010 Dover and Wilmington agreed to each contribute funds to hire an economic development planner to implement the Strategic Plan.

Strategic Economic Development Plan

Due to the importance of the Plan in providing a strategy to improve the economy of Dover and Wilmington the plan's vision statement is included in this Town Plan.

Tri-Town Economic Development - A Sense of Vision

³ This chapter includes segments of the *Strategic Economic Development Plan for Dover and Wilmington*, December 2009. http://www.wilmingtonvermont.us/index.asp?Type=B_BASIC&SEC={44015C01-2A41-41C9-93DE-12D68D8B53CF} Where appropriate the report will be quoted directly and noted in italics.

⁴ These three paragraphs are from the Mullin Bi-Town Strategic Economic Development Plan for Dover and Wilmington VT December 2009

Given the importance of protecting the environment and the uncommon beauty that marks our communities, this committee works to connect all long-term economic activity with the character of the towns. As two small communities, they mutually endeavor to develop in tandem such that water, air, fields, farms, villages and roadways are of the highest possible quality and that there is a balanced local economy with opportunity for all citizens, ranging from recent high school graduates to senior citizens, finding satisfying employment at wages that enable them to comfortably reside in these communities. They stimulate a balanced portfolio of jobs ranging from those of the tourist industry, to professional services, light manufacturing and agriculture to the latest in high technology. They work to stay connected with the world with an infrastructure to communicate across boundaries. They strive to unleash the entrepreneurial spirit for citizens and find places and spaces to help them to meet their economic interests. Given the presence of Mount Snow, its beauty and powerful economic influence on the area's prosperity, they partner with the owners to enable the proprietors and the communities to mutually benefit.

They place a priority on helping to develop a solid educational framework so the next generation can find meaningful employment in our communities. The creation of a top level educational system from kindergarten through high school, and collaboration with vocation schools and the community college are critical to our long term future: They understand that economic development and education are inextricably linked.

They embrace the responsibility to respect our legacy, history, culture and Vermont values to ensure that our special characteristics, uniqueness and values are maintained and enhanced.

The Ebb and Flow of Haystack Mountain

Haystack has witnessed several owners over the past four decades. While each entity has upgraded the facility quite favorably long term success has been fleeting. Despite all of the setbacks the Town of Wilmington remains confident that the resort will re-group and become a viable economic contributor to the Deerfield Valley.

Diversity in Wilmington

The growth and development of this private upper-income club has already had dramatic impact on the town as is evidenced by the number of more costly homes and fewer primary homes, more second homes. The growing income gap and shift toward second homeowners challenges the community in their ability to retain their small town character and values.

It is likely the arrival of a more wealthy population will change the retail profile of the town toward more upscale stores. The town is already seeing this through more up-scale dining opportunities and fewer affordable over-night accommodations for weekend and “last-minute” visitors. The town will have to play a very active role in ensuring that Wilmington maintains a diversity of options and social support services for its moderate and lower income residents. Maintaining diversity of residents and income levels will ensure an interesting and welcoming community for all.

WILMINGTON WORKS DESIGNATED DOWNTOWN

Downtown remains the heart of the community. It has a lively and eclectic mix of uses, including residential, retail, office, governmental, and municipal parking. It is fully serviced by public water and sewer and is a hub for public transportation.

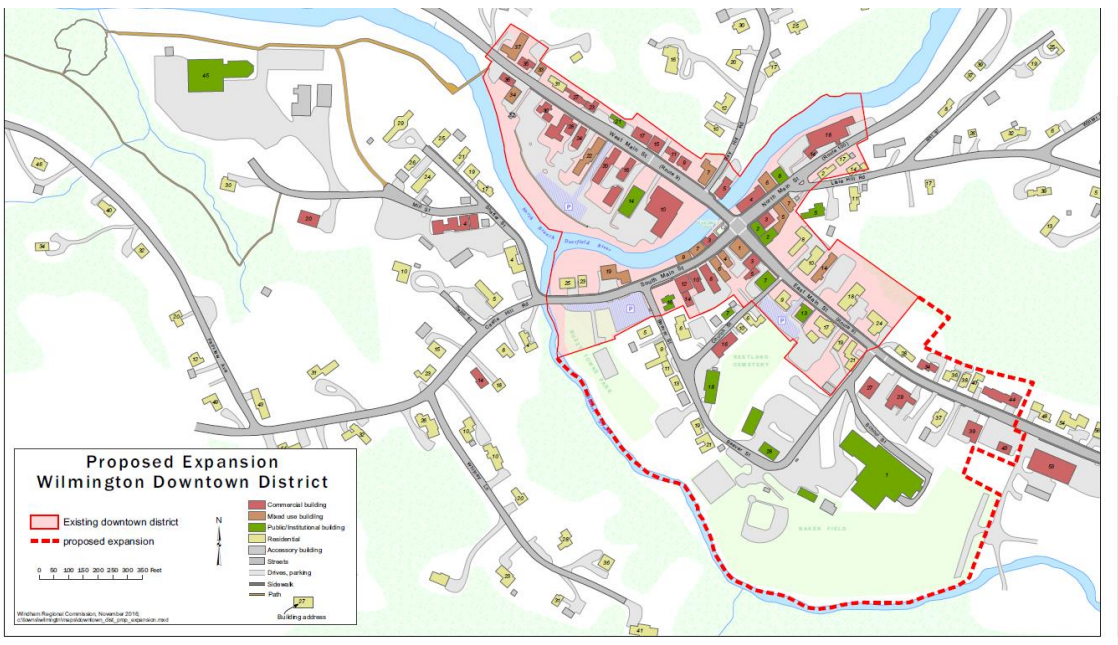
The broad land use pattern in Downtown is fairly well established, but there are opportunities for redevelopment. To support Downtown’s viability and livability, the Town participates in Vermont’s Downtown Program. This enables the Town to receive grants for improvements within the designated area, gives priority consideration for some state-funded grants, and allows owners of income-producing buildings to be eligible to receive tax credits for building improvements (historic, façade, code, and technology). Downtown Designation was first received in 2012 as an extension of the post-tropical storm Irene recovery planning process.

The boundaries of the designated downtown are shown on the map that follows.

Figure 33a: Wilmington Current Designated Downtown



Figure 33b: Proposed Designate Downtown Expansion December 2016



Wilmington, VT Downtown

To build, improve and support a vital downtown that benefits the entire Wilmington community.

Downtown designation achieves the following goals:

- Furthering the intent of the Land Use Chapter – Downtown is an important mixed-use district. The Town Plan identifies the need to make public and private physical improvements in this area. Continued designation will focus additional resources to help this area thrive, including priority consideration for several grant programs.
- Preserving significant historic, architectural, and cultural heritage – The access to historic tax credits and code improvement tax credits will support redevelopment of older and historic properties, preserving the historic character of the Designated Downtown district.
- Create safer streets and a more inviting environment for all users - The Town has benefited from improvements in the Downtown and will continue to seek improvements as necessary.

Wilmington Works is the official designated downtown organization for the Town of Wilmington, Vermont. The organization’s mission is as follows: “To build, improve, and support a vital downtown that benefits the entire Wilmington, VT community.”

Wilmington Works is re-applying for designation in 2018, with an expanded district that is in accord with 2017 zoning changes dictating an expanded Village Design Review District. As one of twenty-four designated downtowns in Vermont, Wilmington Works is able to provide access to tax credits, grant opportunities, and technical assistance to help preserve and revitalize downtown Wilmington. Wilmington Works utilizes the National Main Street Program Four Point Approach of downtown revitalization. These four points mirror our standing committees that accomplish much of our work in our downtown: Design, Promotions, Organization and

Economic Development. The locus of our work is at the intersections of Routes 9 and 100, using the footprint of the Historic District to describe the downtown district boundary.

Wilmington Works has approximately thirty volunteers that serve on the Board, as part of four major committees, or work on specific projects and events. The organization receives operational and program funds from The Town of Wilmington, The Wilmington Fund, and numerous individual donors, and partners with various public and private organizations to raise funds for community and economic development. In 2013, the VT Downtown Program chose Wilmington as one of eight communities to receive a grant through the Economic Development Administration to assist towns affected by Tropical Storm Irene.

In the five years since inception, Wilmington Works has focused on establishing the organization and its governance structure (including partnering with the Wilmington Fund as a local fiscal conduit, forming a Board of Directors, and hiring a Program Coordinator); developing a marketing and branding strategy (including work with Arnett Muldrow & Associates, logo design and development, social media and website management, communications strategy and database development); event planning and execution (including block parties, village strolls, and shop local programs); and capital improvements to the downtown center (including trash cans, banners, sidewalk and streetscape enhancements, crosswalks, façade improvement projects and signage). Wilmington Works supports economic development projects, such as assisting businesses with historic tax credit applications, conducting shopping and parking surveys, and offering business training in conjunction with regional development partners. Wilmington Works also worked with the Historical Society to create a popular historic village walking tour map. 2017 saw the completion of a major streetscape and sidewalk improvement on West Main Street.

Future projects spanning the timeframe of the current town plan include, but are not limited to: establishment of an independent 501(c)3 organization as the Wilmington Fund phases out its operations, further clarification of the role that Wilmington Works plays in collaboration with the Southern Vermont Deerfield Valley Chamber of Commerce, coordinating with the town on the completion of major streetscape and sidewalk improvements on South and East Main Streets, assisting in the re-development and improvement of the area encompassed by the expanded Village Design Review District (including Beaver and School Streets and the proposed Community Center in the Old High School building), and assisting the town with expanded use of Memorial Hall by various community groups. Also to be undertaken are reassessment and further development of promotional events and marketing, performing and following up on snow-removal and parking studies, vacant building development, and expansion of retail, service and lodging operations to match the current food-industry expansion.

www.wilmingtonworksvt.com
wilmingtonworks@gmail.com

HISTORIC STRUCTURES

Wilmington has a unique heritage and a number of sites which are important to its history. There are approximately 90 historic buildings and sites in Wilmington, over 60 of which have been listed on the state and federal Registers of Historic Places. The Wilmington Village Historic District is listed on the National Register of Historic Places. This listing recognizes the historic importance of the district and assures protective review of federally funded projects that might adversely affect its character.

Because the Village itself was not established at its present site until 1840, much of the architecture is nineteenth century with most buildings clapboarded. There are some buildings that are especially significant such as the several Greek revival structures and the Crafts Inn, in the shingle style. Among the historic sites is the Old Town Common off Lisle Hill Road. There are several small cemeteries and other markers throughout the Town.

In October 2009 the Selectboard repealed the previously adopted Design Control District Ordinance and adopted a Historic Review District Ordinance for the Village of Wilmington. The Zoning Amendment states the following purpose of the district:

The natural beauty and the visual and historic character of the Village of Wilmington represent an important asset to the community by providing a source of pleasure for both residents and visitors, and also by contributing substantially to the economic base of the community and to its tax base. In order to protect these characteristics, it is necessary to ensure that buildings are properly related to their surroundings, that proper attention is given to the exterior appearances of buildings so as to provide a means by which property values can be stabilized or improved, and to protect and foster the economic well-being of the community.

Figure 34: Structures Listed on the National or State Register of Historic Places

Entity/Building	National Register	VT Reg	Arch. Style	Approx. Year built
Wilmington Village	X	X		
3 South Main St (C& D offices)	X	X	Greek Revival	1835
7 South Main St (Pub)	X	X		1910
9 South Main St (apts)	X	X		1870-1880
16 South Main St (Library)	X	X	Colonial Revival	1906
14 South Main St (Church)	X	X	Greek Revival	1835
12 S Main (behind church)	X	X		1800
10 South Main St (Ponchos)	X	X	Greek Revival	1854
behind Poncho's(barn)	X	X		1854
8 South Main St (Anchor)	X	X	Greek Revival	1850
6 South Main St (Houston)	X	X	Greek, Italian influence	1855
4 South Main St (Streeter)	X	X	Greek Revival	1840
1 East Main St (Home Center)	X	X	French 2nd Empire	1880
3 East Main St (Heritage)	X	X	Greek Revival	1900
3 East Main St (twice blessed)	X	X	Greek Revival	1860
7 East Main St(Masonic Hall)	X	X		1890
9 East Main St (Grey bldg)	X	X		1890
13 East Main St (church)	X	X	Queen Anne	1883
17 East Main St (apt bldg)	X	X		1880
part of 17 East (barn)	X	X		1880
19 East Main St (red bldg)	X	X		1910
21 East Main St (corner Beaver St)	X	X	Greek Revival	various
24 East Main St (Laterre)	X	X	Queen Anne	1880
20 East Main St (Hamilton apts)	X	X	Colonial Revival	1885
14 East Main St (Marzelli)	X	X		1865
10 East Main St (white house)	X	X		1870
8 East Main St (white house)	X	X	Carpenter Gothic	1870
2 East Main St (Town Clerk)	X	X	Greek Revival	1850
2 East Main St (Town offices)	X	X	Italianate	1850
3 North Main St (Brewery)	X	X		1850
5 North Main St (Sedell)	X	X	Greek Revival	1840
7 North Main St (Palmer)	X	X	Greek Revival	1840
2 Lisle Hill Rd (corner N Main)	X	X		1890-1900
17 North Main St (Eldred)	X	X		1890-1900
17 North Main (Outbuilding)	X	X		
18 North Main (Old Red Mill)	X	X		1828/1902
8 North Main (Church)	X	X	Greek Revival	1833

6 North Main (Beyond Imag)	X	X	Greek Revival	1840
7 West Main St (Antiques)	X	X		1865
9 West Main St	X	X		1900
11 West Main St (Quaigh)	X	X	Greek Revival	1839
15 West Main St (VT House)	X	X	Greek Revival	1850
17 West Main St (Bartleby's)	X	X		1840-1850
21 West Main St (Chamber)	X	X	*	1925/1970
27 West Main St (Hayseed/Fash Plate)	X	X		1840/1850
31 West Main St (apts)	X	X		1865
33 West Main St (Folly Foods)	X	X		1919
35 West Main St (Rafuse)	X	X	Greek Revival	1840
37 West Main St (Bauman)	X	X	Greek Revival	1840
36 West Main St (Zoar Outdoors)	X	X	*	1880
34 West Main St (Liquor)	X	X	*	
30 West Main St (Norton)	X	X	Colonial/Cape	1760
28 West Main St (Country store)	X	X		1836
24 West Main St (Sotheby's)	X	X	Greek Revival	1840
22 West Main St (Pickwells/McGrath)	X	X	Greek Revival	1836
20 West Main St (Roost)	X	X	Greek Revival	1840
16 West Main St (Incurable)	X	X	Greek Revival	1845
behind 16 W Main barn	X	X		1900
14 West Main St (Memorial Hall)	X	X	Colonial Revival	1902
10 West Main St (Crafts Inn)	X	X	Colonial Revival	1898
36 Sturgis Drive (crows Nest)	X	X		
31 town Hwy (Medburyville Bridge)	X	X		
1 School St. (High School)		X		
29/30 Shafter St (Round House)		X		

* Indicates that this building does not contribute to the Historic Village.

PUBLIC RECREATION

Wilmington prides itself on the numerous opportunities that the community has to offer locals and visitors in the way of public recreation. There are recreational opportunities to:

- | | | |
|---------------------|------------------|---------------|
| * bike | * golf | * play tennis |
| * boat | * hike | * sail |
| * bowl | * ice skate | * snow mobile |
| * canoe | * kayak | * snow shoe |
| * cross country ski | * miniature golf | * walk |
| * fish | * picnic | |

The Town of Wilmington is also well noted for its abundant shopping and dining possibilities. Many of these are within walking distance of each other in the historic Wilmington downtown.

Wilmington has a wealth and variety of private and public recreation trail networks. There are also hiking trails in the Green Mountain National Forest (to Haystack Peak) and in the Molly Stark State Forest (to Mount Olga) and snowmobile trails which exist on mostly private land. Popular seasonal destinations include:

- Buzzy Towne Park
- Green Mountain Beach at Lake Raponda and boat launch
- Lake Whitingham (Harriman Reservoir) which has several access points
 - Wards Cove has swimming and a picnic area
 - Oxbow has a boat launch and picnic area
 - Maynard’s Cove has swimming and canoe/kayak access
 - Mountain Mills boat launch
 - Fairview Avenue has swimming, a picnic area and boat launch
 - Medburyville picnic area

The Wilmington Trails committee works on building, maintaining, and adding signage to many hiking and biking trails throughout Wilmington. The committee and dedicate volunteers gained permits, repaired, improved surfaces and built bridges to complete a number of trails and loops.

Figure 35: Hiking Trails Map

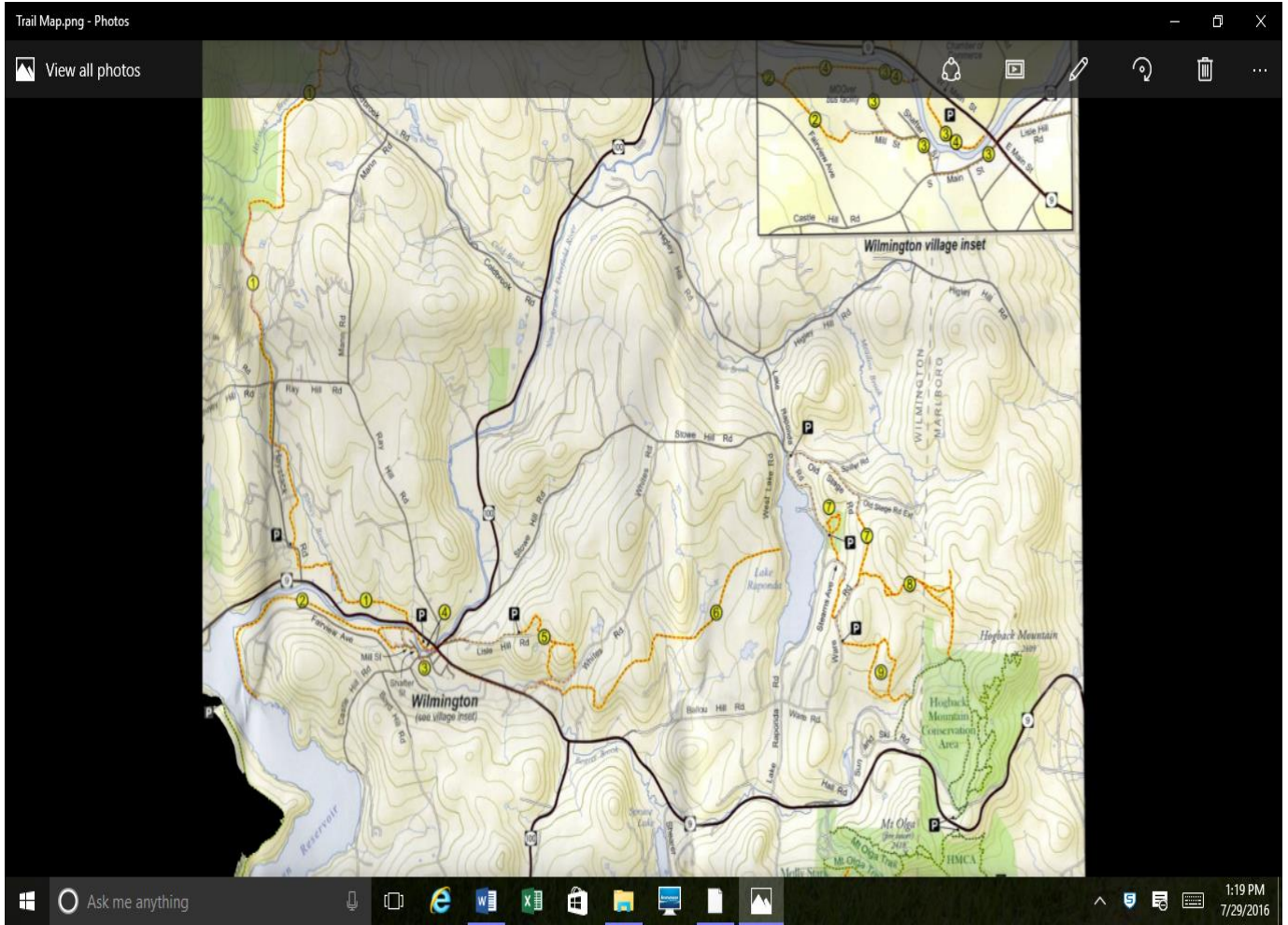


Figure 36: Hiking Trails Guide

For More Information:

Trail Committee Member Information

www.wilmingtonvt.us
wilmingtontrails@gmail.com

The Southern Vermont Deerfield Valley

Chamber of Commerce
www.visitvermont.com
 Phone: 802-464-8092

The Town of Wilmington

c/o Trail Committee
 P.O. Box 217
 Wilmington, VT 05363
mail@wilmingtonvermont.us

Be a Friend & Support Recreation

**Become a Friend of the
 Wilmington Trail Committee.**

Send and email to wilmingtontrails@gmail.com

Tell us your name, and indicate if you would like to volunteer for trail building and maintenance, or be added to our email list to receive emails about upcoming events and activities. Or both. You can also contact us at this email with any questions or suggestions.

Support the Wilmington Trail Committee

Donations are only used for trail development, maintenance and mapping

Please make checks payable to "Town of Wilmington" and write "Trail Committee" in the memo line. Mail your check, along with your name, address and email to:

Town of Wilmington
 c/o Trail Committee
 P.O. Box 217
 Wilmington, VT 05363

**Wilmington
 Trails Map**



Published by the
 Wilmington Trail Committee
 2015

1. The Valley Trail

Park in any Public Parking lot in the center of Wilmington Village. Start at Reardon's Crossing footbridge. Cross to the North side of the street and travel briefly along the road (west). The trailhead will be on your right. This trail travels all the way to Dover. Distance: 9.0 mile. See the complete bi-town valley trail map for parking options and multiple trail heads for access.

2. Hoot, Toot & Whistle Trail

So named because it roughly follows the old Hoot, Toot & Whistle railway bed. Start at Reardon's Crossing- the footbridge. Follow this trail to the right (west and south) of the Village. It follows the North Branch of the Deerfield River and then heads south along the shore of Lake Whitingham until it reaches the Boat Launch and Swimming area. Distance: 2.0 miles (4.0 mi. rt)

3. Downtown Loop

Start at Reardon's Crossing foot bridge on the west side of the village. Cross over the bridge and stay left again onto South Main Street. Finally, turn left to walk along the river and behind Crafts Inn, back to your starting point at Reardon's Crossing. Or weave your way in and out of the quaint shops and delicious restaurants in the village as you complete this short tour of the village. Distance: 0.5 miles

4. Riverwalk

Part of the HT&W trail to just past the Moover building. Starts opposite Dot's restaurant, goes behind Craft's Inn, using the West Main Street parking lot, to Reardon's Crossing foot bridge. Cross bridge, follow trail to the right, between the Mover building and the river, turn left up the hill to connect to the HT&W trail. Distance: 0.5 miles

5. Lisle Hill to White's Road

From Wilmington Center, head North on Route 100; turn almost immediately right onto Lisle Hill. Park 0.5 miles up the hill near the old town common. Trailhead is just uphill from there on the left. The trail goes over Lisle Hill with some rugged steep sections. There are two connections onto White's Road, which allow for a 1.1 mile total "lollypop loop". Returning to Lisle Hill via Route 9 results in a 2.4 mile loop. Or continue across White's Road and connect onto the Primitive Trail.

6. Primitive Trail

(White's Road to West Lake Road)
 This trail begins on the east side of White's Road, just after crossing the bridge over Beaver Brook. The Trail briefly follows Beaver Brook, descending steeply to cross a tributary, then rising steeply onto the ridge. From there, it is more gentle, crossing through old forest, old cross country ski trails, high ridges and low beaver ponds, eventually arriving at the southwestern shores of Lake Raponda. Distance: 2.75 miles

7. Lake Raponda Trails

These are on the eastern side of Lake Raponda. Access the trailhead by parking in the designated lot for the Green Mountain Beach, on Lake Raponda Road.

From here, you can access a short (0.3mile) loop, through the woods of Wilmington Town Forest. Start from the northeast corner of the parking area, and head left.

Alternatively- head right from the northeast corner of the parking lot, and you will pick up a longer loop. This trail passes through woods, then connects with Stearns Road (up hill) for a short distance. It then veers off Stearns Road to the right, eventually connecting with Ware Road (take a left), and continues as a trail to Old Stage Road. At the end of Old Stage, turn left and walk along Lake Raponda Road to return to the parking area.

8. Raponda Ridge Trails

Follow Ware Road for 0.7 miles to Raponda Ridge gate and trail head on your right. Follow the blue trail markers. This trail will loop back to the trailhead for a 1.3 mile hike. This trail also connects to the Hogback Mountain Conservation Area Trails (see "Other Publically Accessible Trails")

9. Ware-Homestead & Hogback Connector

This trail can be accessed via the Green Mountain Beach Parking lot, or from the Raponda Ridge Parking Area. This is a 1.1 mile trail (one way) from its junction with Lake Raponda Trail. It can be used to connect to the Hogback Mountain Conservation Area, through to Molly Stark Park in a southerly direction, to connect to the Shearer Hill Trail.

10. Shearer Hill Trail

Park at the Intersection of Shearer Hill and Parsons Road, on the right, just past the quarry. The trailhead is reached by walking along Shearer Hill Road for approximately 0.5 miles. You will find it on the left hand side of the road. From the parking spot, this trail is 1.5 miles one way, and includes a very steep section at the beginning. After 1.5 miles, it connects with Molly Stark State Park (see "Other Publically Accessed Trails")

Other Publically Accessed Trails

Catamount Trail

This is a section of a cross-country ski trail that extends the length of the state. The section near Wilmington parallels the west side of Harriman Reservoir, and ends in the town of Whitingham. This map does not have the full section.

Haystack Mountain

Trailhead signs are on Chimney Hill's Upper Dam Road. The marked trail is a moderately steep 2.0 mile one-way hike to the summit of Haystack peak.

Hogback Mountain Conservation Area

Trailhead kiosks are located on either side of Route 9, just after passing into Marlboro, near the "100 mile view". Follow the blue diamond blazes through the park, or explore all the trails at your leisure. Hogback has a multitude of trails, many of which connect to the Wilmington trails, creating an expansive multi-town network along with West Dover. (Hogbackvt.org)

Molly Stark State Park

This park is on Route 9 East, approximately 3.5 miles from the center of Wilmington. There is a seasonal fee for use. Trails in the park connect to the Shearer Hill Trail and Hogback Mountain Conservation Association Trails.

Rules of the Trails

1. **Respect the Landowners** who have graciously given you permission to pass through their land. Keep pets leashed. Pick up after pets. Travel quietly and keep noise to a minimum.
2. **Plan Ahead and Prepare:** Prepare for extreme weather, hazards and emergencies; bring appropriate clothing; carry and know how to use map and compass; know local regulations. Bring lights.
3. **Travel on durable surfaces:** Stay on the trail- shortcuts erode soil and damage vegetation; travel in single file in the middle of the trail, even when it is wet and muddy.
4. **Dispose of waste properly:** If you packed it- in pack it out! Pick up trash others have left behind.
5. **Leave what you find:** Take only pictures, leave only footprints; do not disturb plants, flowers, rocks and wildlife; leave natural objects and cultural artifacts.
6. **Respect Wildlife.** Don't feed or disturb wildlife.
7. **NO MOTORIZED VEHICLES**

Trails to date include:

1. The Valley Trail: from Reardon’s Crossing in downtown Wilmington, along Rte. 9 to the Crosstown trail in Dover – 9.0 miles one way Hoot, Toot and Whistle Trail: a multi-use trail from Reardon’s Crossing in the Village to the Mountain Mills boat launch on the east side of Lake Whitingham – a 4 mile round trip
2. Downtown Loop: starting at Reardon’s Crossing and bearing left behind the West Main businesses along the river, behind the Crafts Inn.
3. Riverwalk: From Dot’s restaurant, behind the Crafts Inn, along the river, across Reardon’s Crossing, turning right by the river behind the Moover building, turning left up the hill to connect with the Hoot, Toot, and Whistle trail.
4. Lisle Hill to Whites Road: Starting 0.5 miles up Lisle Hill Rd (near the old town common) following up and over Lisle Hill to Whites Rd. Returning by Lisle Hill is a 1.1 mile loop. Returning by Rte. 9 is a 2.4 mile loop. At Whites Road the trail intersects with the Primitive Tail.
5. Primitive Trail: Starts at the Bottom of White’s Road and ends on the west shore of Lake Raponda - 2.75 miles one-way
6. Lake Raponda Trails: Trails are on the eastern side of Lake Raponda, accessed from parking by Green Mountain Beach or Lake Raponda Road. The shorter of the two loops through the Wilmington Town Forest is 0.3 miles.
7. Raponda Ridge Trails: From the Raponda Ridge gate and trail head, looping 1.3 miles back to the trailhead. The trail connects to the Hogback Mountain Conservation Area Trails.
8. Ware-Homestead & Hogback Connector: Accessed from the Lake Raponda Trail parking areas, looping 1.1, this trail connects to Hogback Mountain Conservation Center, from which one can access Molly Stark State Park to the south and the Shearer Hill Trail.
9. Shearer Hill Trail: Starting at the intersection of Shearer Hill and Parsons Road just past the quarry, the trail runs along Shearer Hill Road for 1.2 mile, turns left and follows a 1.5 mile loop. This trail connects to the Molly Stark trail running to Mount Olga. You can descend down to Hogback to connect with trails across Route 9. It is a 6 mile hike back to Lake Raponda.

SCENIC RESOURCES

The outstanding scenic quality of the Wilmington area is one of its greatest assets. The work of the Scenic Road Committee, the planning survey, and the ad hoc planning committees show that the protection of the scenic qualities of the Town is an aesthetic concern, as well as an economic one.

These scenic qualities separate Wilmington from other towns that are less pleasing visually, and provide an advantage for the Town as it competes with other New England towns in attracting visitors and customers to shops and restaurants. There are four major types of scenic resources in the Town. They are:

- Views from Primary Roads: What is seen on the roadsides as well as views of distant landforms influences the visual quality of the Town.
- Intermediate View Sheds: These are visually significant areas adjacent to primary roads, serving as foreground for views of ridges, hills, and valleys.
- Back Roads: The back roads of Wilmington are the connecting links to all parts of Town. These roads provide such important visual features as leaf tunnel effects, hedgerows, stonewalls, fences, orchards, cemeteries, wetlands, ponds, brooks, and lakes.
- Major Land Forms: Haystack Mountain is the major landform in Wilmington. It can be viewed from all the major highways leading into the Town and is a significant scenic resource. Lake Whitingham is also a significant scenic resource.

Many of these resources are highly sensitive and because they may be adversely affected by careless development, must be carefully managed.

NATURAL RESOURCES

Topography and Slope

The physical geography of any region is shaped by the sum of all interacting and man-made processes, selected and driven by climatic forces and governed by the basic geologic structure of the region. The Town of Wilmington is located on the eastern flank of the Green Mountains. The mountain range is bedrock consisting of highly metamorphosed gneisses and schists and a structure of a complex mix of folds and faults with a north-south trend. This basic foundation was established in the early Paleozoic and late pre-Cambrian eras, four hundred million years to one billion years ago. Wilmington's landscape has acquired its present appearance as the result of glacial erosion and deposition, during the recent Ice Age that ended about ten thousand years ago in southern Vermont but whose effects are continuing to this day. However, the physiography continues to change as streams and rivers move materials and carry with them the products of weathering to new locations.

The Town is laced with many streams, each with its own set of lesser tributaries, which divide the Town into a branching group of hills and ridges of considerable relief and separated by narrow, intervening valleys. The Village itself is situated at the confluence of the Beaver Brook valley from the East and the Deerfield River valley from the North. It is the dominance of the Deerfield River, with its adjacent fertile flood plain, that allows the whole region to be known as "The Valley."

The highest and most visible feature of the landscape is the distinctive peak of Haystack Mountain, elevation 3,420 feet above sea level. Conversely, the lowest area is the surface of Lake Whitingham whose

variable level is at about 1,500 feet in elevation. Thus, the local vertical relief is about 1,900 feet, much of which is quite steep with slopes greater than 15%. As slopes increase, the suitability of the land for development decreases. While the development constraints of building on steep slopes can be overcome, the environmental risks remain. In areas of steep slopes, the velocity of runoff and, therefore, the erosion potential, increases. The ability of the soil to filter septic system leachate is decreased.⁵

Soils

Soils are one of the most important environmental factors that govern the use of land in rural areas. A soil's depth to water table, susceptibility to flooding, depth to bedrock, stone cover, and permeability present potential constraints on the construction of roads, buildings, and septic systems. There are areas in Wilmington which have severe sewage disposal leaching limitations. Careful evaluation of any proposed site is necessary to prevent attempted usage of these soils beyond their capacity.

The soils on the mountains and hills of Wilmington are as varied as the landscape. On steep mountain slopes scraped by the glaciers, soils tend to be shallow to bedrock, while on some of the hills, the glaciers have deposited material. Nearly all of the soils in Wilmington have a glacial origin, whether they are the finely ground silts (rock dust) or the less common gravel deposits which resulted from outwash streams.

Water Resources

Water Resources cannot be addressed without first acknowledging that the entire hydrologic cycle is an inseparable whole. "Highest flows occur with snowmelt, and thereafter decline continuously, reaching annual lows in August or September. During the fall and early winter stream flow gradually increases to another peak and remains steady or declines slightly until spring again."⁶

Surface Waters: Rivers, Streams, Lakes, and Ponds

Wilmington is blessed with rivers, streams, lakes and ponds that provide recreational opportunities that include fishing, swimming, boating, and various winter sports (see Community Facilities chapter for a further discussion on recreation). Maintaining their high water quality is critical for human use (both recreation and drinking) and for fish and wildlife habitat.

Almost all the streams drain into the North Branch of the Deerfield River, which rises not many miles to the north in the Town of Dover. Except for a few small brooks in the very southeastern corner of the Town, all the drainage converges in Lake Whitingham. Most streams have steep gradients and variable flows and their waters are soft and slightly acidic. The North Branch of the Deerfield River's principal tributaries are Bill Brook from the northeastern portion of the town, Cold Brook from the northwestern part, and Beaver Brook from the eastern part. Rose and Binney Brooks drain the Haystack area, and flow into the upper reaches of Lake Whitingham.

⁵ According to the U.S. Natural Resources Conservation Service, slopes of less than 8 percent are generally the most suitable for building. The erosion potential of such slightly sloping land is low, their ability to absorb runoff is high, and soils are usually of adequate depth and composition for septic systems. Exceptions are extremely flat areas, some of which may be classified as wetlands, where drainage is poor. In addition to the potential for sedimentation and erosion, development on steep slopes is likely to be more visible from a greater number of locations throughout town.

⁶ An Ecological Planning Study for Wilmington and Dover, Vermont, Wallace, McHarg, Roberts and Todd, April 1972.

Major surface waters in Wilmington include:

Lake Whitingham

The second largest body of water wholly within the State of Vermont, with roughly half of its 2,185 acres of water surface lying within the Town of Wilmington, is currently owned and operated by a utility company (TransCanada).⁷ However, TransCanada has their entire network of hydropower dams for sale. It is likely we will have a new owner of the lake in the not distant future. The State of Vermont is one of the potential buyers considering the merits of controlling more of their future energy sources. Lacking the skills in running hydropower systems they would lease the operations back to another organization. Depending on who ultimately buys the lake there is the potential for greater local control. Although the lake serves as an integral component of a utility company's hydroelectric enterprise, it is now a vital part of Wilmington's economy and landscape. The power company has been, and continues to be, attentive to and supportive of collateral use of the lake.

The Vermont Deerfield River Comprehensive Rivers Plan, prepared by the Vermont Department of Environmental Conservation, describes the environmental and ecological issues related to the operation of the utility company system in Vermont and Massachusetts. It offers goals and recommendations for the future.

The shores of the lake remain undeveloped and are forested to the water's edge, except when the reservoir has been drawn down in the late fall to prepare to receive the spring's snow melt. Nevertheless, the lake is a scenic gem with wildlife sittings including the American Bald Eagle and Common Loon, while being increasingly impacted as a recreational resource.

Lake Raponda

In the eastern part of the town lies the 116-acre Lake Raponda. It lies at the head of a drainage basin, with a dam at the northern end before leading into Bill Brook. Lake Raponda is regularly monitored for water quality. Parking is limited as is the capacity of the beach area, so use of the beach is limited to use by taxpayers, residents, and their guests.

Haystack Pond

Just below the peak of Haystack Mountain, at an elevation of 2,984 feet, lies 36 acre Haystack Pond. Surrounded by wetlands, this pristine pond is accessible only by a hiking trail. Its mountainside location makes it a scenic treasure, whether viewed from the summit or the shore. Nearby is three-acre Crystal Pond, now enclosed by woods and also surrounded by wetlands.

Private Lakes

Mirror Lake lies at the base of Haystack Mountain Ski Area and was constructed as a source of water for snowmaking and fire protection. Spruce Lake, a private twenty-acre pond, is the focus of a small development that was created in the 70's by damming a tributary of Beaver Brook.

⁷ In 1924 a dam was constructed within the narrows of the Deerfield River valley in Whitingham, and the flooding of the lower portion of the valley signaled a change in the physical, social, and economic status of Wilmington

Impaired Waters

Section 305(b) of the Federal Clean Water Act requires states to monitor the quality of surface waters and to publish the results periodically. Vermont issues a Priority Waters List biannually. Impaired waters in (or partially in) Wilmington listed by the state in 2014 include:

Impaired waters with EPA-approved Total Maximum Daily Load (TMDL):

- Harriman Reservoir - elevated level of mercury in all fish except brown bullhead; there is an EPA-approved regional mercury TMDL adopted on December 20, 2007
- Harriman Reservoir - atmospheric deposition: extremely sensitive to acidification; there is an EPA-approved episodic acidification acid TMDL adopted September 20, 2004
- Upper Deerfield River, below Searsburg Dam - elevated levels of mercury in all fish; there is an EPA-approved regional mercury TMDL adopted on December 20, 2007
- Haystack Pond - atmospheric deposition: critically acidified; chronic acidification; there is an EPA-approved acid TMDL adopted September 30, 2003

Waters altered by flow regulation. The state considers these priority waters for management action:

- North Branch Deerfield River (11.5 miles) - artificial and insufficient flow below Mt Snow/Haystack snowmaking water withdrawal; non-support of aquatic life 2.2 mi, partial support of aquatic life 9.3 mi (13.3 mi total length)
- Note: ANR de-listed Cold Brook between 2012 and 2014 publications

Shore Lands

Shore lands are lands adjacent to surface waters which are important for maintaining water quality and providing wildlife habitat; valuable in reducing soil erosion and excessive siltation; and tend to be highly vulnerable to excessive and poorly planned development. The resource value of watercourses and shorelines can be diminished or destroyed by improper development activity. Shown on the Natural Resource Map are areas in town that are found along undeveloped streams.

Maintaining undisturbed naturally vegetated buffer strips along streams provides many functions, including: stabilizing streambanks (by reducing erosion), providing food and shelter for fish and wildlife, filtering and absorbing pollutants (such as silt, fertilizers and livestock wastes) prior to reaching surface waters, maintaining cool water temperatures required to support fisheries, reduce flood and ice damage to streambanks and adjacent structures, as well as preserving the natural character of the water.

Wetlands

Wetlands are seasonally or permanently wet areas which have saturated soils at least part of the year, support wetland plants and contain aquatic life. Marshes, swamps, bogs, and seasonally flooded fields are examples. Wetland values include fish and wildlife habitat, flood and erosion protection, nutrient and pollution filtration, ground water recharge, and sites for educational activities and recreational and scenic enjoyment.

Most all wetlands are under the jurisdiction of the US Army Corps of Engineers, and are regulated under Section 404 of the federal Clean Water Act. The Vermont Wetland Rules regulate development within and adjacent to wetlands areas. Under the rules, three classes of wetlands were established to determine the

level of protection. Class One⁸ and Class Two⁹ wetlands are considered significant by the State of Vermont and are shown on the Vermont Significant Wetland Inventory Map.¹⁰ Currently, there are no Class One wetlands and 533 acres of Class Two wetlands in the Town of Wilmington. Class Three¹¹ wetlands are not regulated under State wetland rules, but in most cases are under the jurisdiction of the US Army Corps of Engineers, and may be protected by other State or Federal regulations.
http://www.anr.state.vt.us/dec/waterq/wetlands/htm/wl_vermontsigwetinvmaps.htm

A significant wetland in the Town is the Lake Raponda balsam swamp, some twenty acres located to the south of the lake. It consists of plants of unusual diversity and productivity. This area is a dense spruce-balsam swamp with boreal plant species and a luxuriant ground cover of mosses and lichens. A wetland of less than ten acres on Meadow Brook provides excellent food and cover, and nesting potential, for waterfowl. Aside from the aforementioned sub-alpine wetlands on Haystack, there are several beaver pond areas of five acres or less scattered about the Town. The shorelines of Lake Whitingham are atypical, and consequently, the plant communities there are now characterized by a reduced habitat as a result of seasonal fluctuations in the water level due to power company operations.

The Town does not regulate wetlands. Nonetheless, the Vermont Wetlands Office is required to review projects for work that is proposed to be done in a wetland or buffer area. Many activities such as hunting, fishing, hiking, boating, bird watching, scientific and education research or activities, and wildlife, fisheries, or silvicultural¹² management do not require state or federal review provided that they do not influence the water levels in a wetland and do not involve draining, filling, or grading.

Floodplains

Floodplains are relatively flat areas adjacent to a stream or river that experience occasional periodic flooding. Federal Emergency Management Agency (FEMA) has mapped flood hazard areas¹³, areas with a one percent chance of flooding in any given year. Official Flood Hazard Maps are available at the Town Office.

The Town participates in the National Flood Insurance Program and has adopted and enforces a Flood Hazard Area Regulation as part of the zoning. By doing so, property owners in Wilmington are able to obtain federal insured flood insurance at affordable rates and flood disaster assistance. The Flood Hazard Area Regulation imposes design standards on development within the FEMA-defined flood hazard areas that are intended to minimize property damage during flood events.

⁸ **Class One:** These wetlands are considered to be exceptional or irreplaceable in their contribution to Vermont's natural heritage and merit the greatest amount of protection. The Wetland Rules establish a 100-foot buffer around all Class One Wetlands and also establish conditional uses allowed within the wetlands and buffer areas.

⁹ **Class Two:** These wetlands are protected under the Wetland Rules due to their significance alone or in conjunction with other wetlands. The Wetland Rules establish a 50-foot buffer around all Class Two Wetlands and also establish conditional uses allowed within the wetlands and buffer areas

¹⁰ http://www.anr.state.vt.us/dec/waterq/wetlands/htm/wl_vermontsigwetinvmaps.htm

¹¹ **Class Three:** These wetlands have not been determined to be significant enough to merit protection either because they have not yet been evaluated or because they were determined not to be so.

¹² Silviculture is the growing and tending of trees and forests.

¹³ <http://www.fema.gov/hazard/flood/info.shtm>

Groundwater

Groundwater occurs in rock openings. In Wilmington, with its high percentage of metamorphic rock, most of these gaps were derived from secondary joints and fractures created after the rock was formed. Wilmington gneiss, the most weathered metamorphic rock, has the greatest number of fractures. Deep sands and gravel found near recharge sources such as streams, ponds, and bogs are sources of groundwater as well.

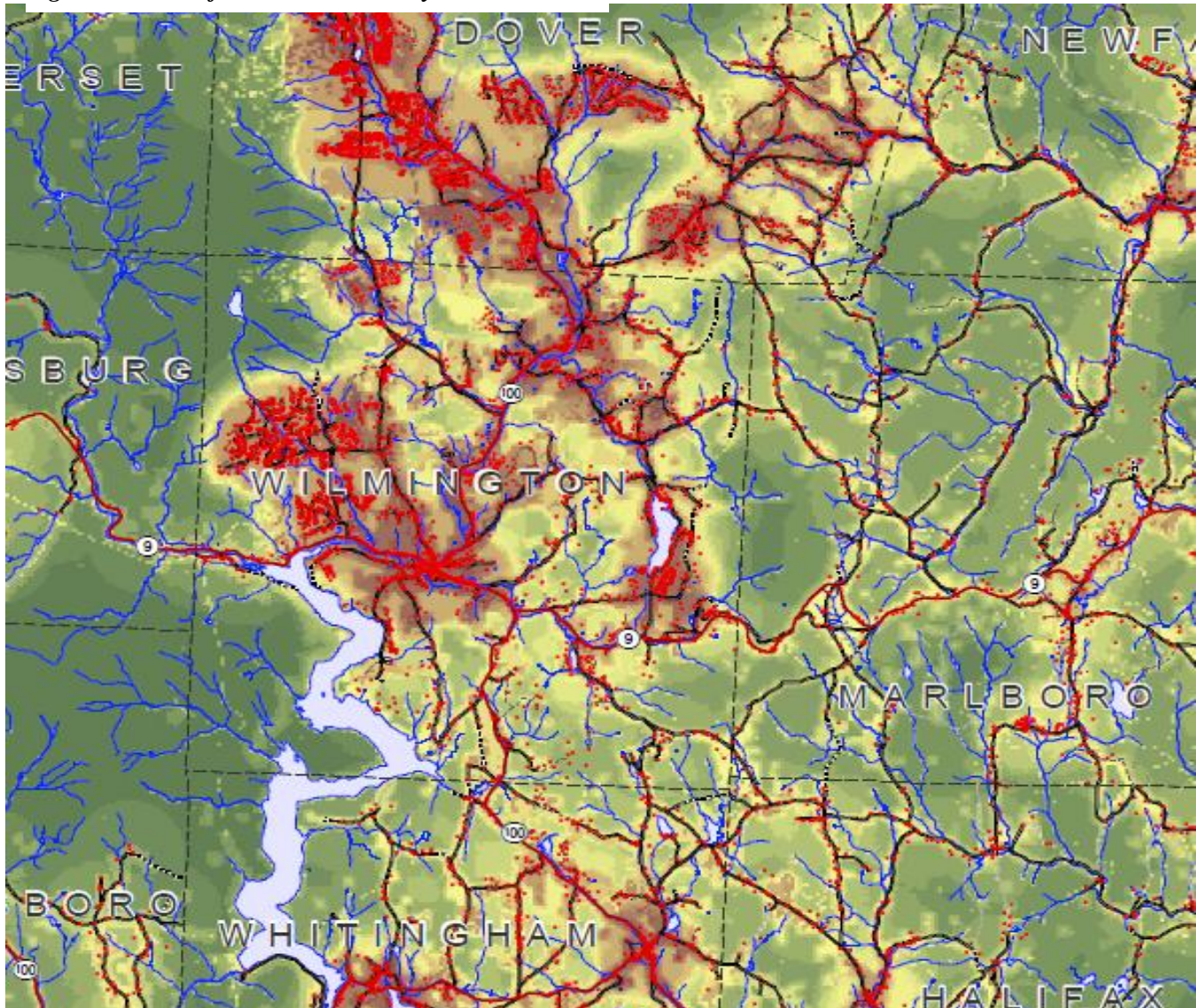
Well Head Protection Areas

Public water supplies derived from a groundwater source should be secure. The State of Vermont Agency of Natural Resources has established and mapped Source Protection Areas. Within the Town of Wilmington seventeen springs, seven bedrock wells, and two gravel wells which supply water for the Wilmington Water District, Chimney Hill Owners Association and Coldbrook Fire District have been identified.

The springs that supply the Wilmington Water District are located higher upon the slopes of Haystack Mountain. The Coldbrook Fire District wells are all located within the District boundaries, mostly throughout the Haystack Development in the Golf Course Tract, Ski Area Tract and East Tract. Some other wells are located on private property not part of the Haystack Development, but still within the District boundaries. Any developments near these wells must consider the potential effect they could have upon these sources (within the Well Head Protection Areas) and account for it in the permitting process. In 1991 the Wilmington Water District constructed a new covered reservoir, as well as upgraded the distribution system. The system meets the Federal Clean Water Act.

Minerals

Commercially useful sands and gravels, suitable for road maintenance and construction, have been extracted in years past and are now nearly depleted from any sizeable deposits except stream beds and the Lake Whitingham flood area. The Town must rely on outside sources for a supply to handle municipal needs.

Figure 37: Wildlife Habitat Suitability

Wildlife Habitat and Rare, Threatened and Endangered Species

In addition to habitats mentioned under water resources, large forested tracts have significant habitat potential for large mammals (bear, moose, deer, bobcat, fisher, and coyote) and many valued songbirds. The forests, open fields, and wetlands provide the needed habitat. Mammals that inhabit the Town include - white tailed deer, moose, bear, coyotes, bobcats, red fox, skunks, chipmunks, red and gray squirrels, rabbits, hare, porcupines, beaver, raccoons, opossum, fisher, otter, mink, weasels, and muskrats. Game birds, such as turkey, ducks, and grouse are abundant. Non-game species of mammals and birds find the mix of forest, open fields, backyards, wetlands, lakes, ponds, and streams attractive.

Most of the town's streams are good trout waters, even though there are seasonal low flows. Streams with a steep gradient, a mix of pools and riffles, and intact forested riparian zones are particularly good fisheries. Salmon have been unsuccessfully introduced into some of the upland streams and into Lake Whitingham. Fish habitat exists for both cold (trout) and warm water (bass).

The black bear is native to Vermont and primarily found in remote, forested habitat. In Wilmington bear are found most commonly on the forested mountains on the west side of the Town. During late spring and summer, bear are known to feed on lower elevation vegetation and in wetlands. During this time period there is an active bear crossing on Cold Brook Road where they come down off Haystack to wetlands along Cold Brook. Bear also feed on Jack-in-the- pulpit and skunk cabbage, both of which have been found in Wilmington.

The appearance of black bear in the more thickly settled parts of town has been increasing over the past few years. Along the border with the Town of Dover there has been an increase in human-bear conflicts. To decrease these encounters, Vermont Fish and Wildlife Biologists recommend that bird feeders only be placed outdoors from December 1 to April 1.

Moose and bald eagle sightings have increased and great blue herons and many species of hawks are common. The many overgrown fields, hedgerows, open woodlands, thickets, and backyard feeders invite song birds to come and stay in the town

In Wilmington there are four occurrences of rare¹⁴ plant species and one occurrence of a threatened¹⁵ plant species. All of these occurrences are in the general area of surface water (see the Natural Resources map figure 37).

The Wildlife Habitat Suitability analysis conducted by the Vermont Department of Fish and Wildlife and the Vermont Agency of Transportation, used a statewide, landscape scale model which considered housing density, land use/land cover, and core habitat information. The resulting data show the probability of finding suitable contiguous and linkage wildlife habitat in an area, but it does not describe the quality of habitat.

The wildlife habitat suitability rating, shown on this accompanying map, goes from high (green) to low (brown) with red showing the built environment. The areas of Wilmington with the highest wildlife habitat suitability are located along the town's western and the southeastern corners. These areas also provide the best opportunity of connecting with neighboring towns existing wildlife corridors.

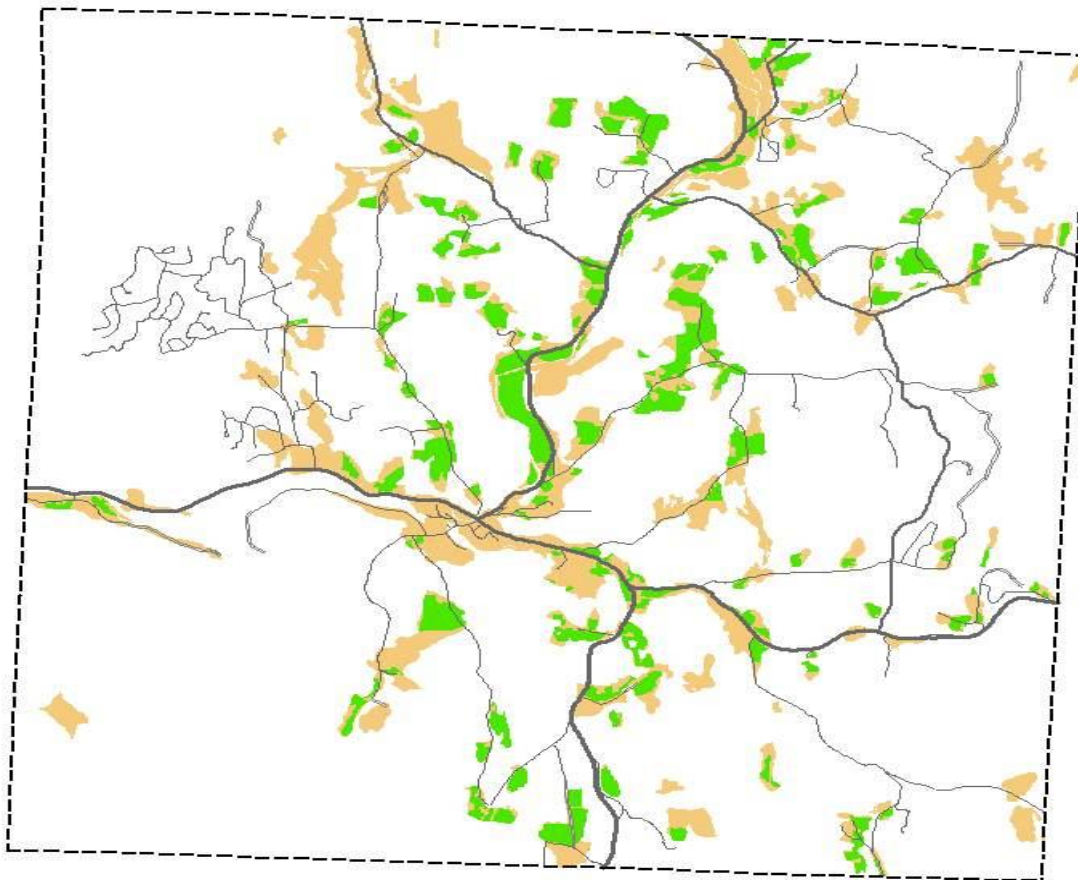
¹⁴ A rare species is one that has only a few populations in the state and that faces threats to its continued existence in Vermont

¹⁵ A threatened species is a species whose numbers are significantly declining because of loss of habitat or human disturbance and unless protected will become an endangered species,

Agricultural Resources

The US Department of Agriculture Natural Resources Conservation Service has identified soil types that are best suited for crop production based on soil quality, growing season and moisture supply. Important Farmland inventories identify soil map units that are Prime Farmland, Unique Farmland, Additional Farmland of Statewide Importance, and Additional Farmland of Local Importance. The prime agricultural soils are likely to produce the highest crop yields using the least amount of economic resources and causing the least environmental impact. Soils with an Important Farmland rating of 'prime' or 'statewide' have the potential to be Primary Agricultural Soils under Act 250.

Figure 38: Agricultural Soils & Open Lands



Ag. soils in brown
Ag. soils with open land in green

Wilmington has scattered pockets of agricultural soils that could be classified as either prime (390 acres or 1.5 % of town) or statewide (3,185 acres or 12.6 % of town). The majority of the prime agricultural soils are found along the Deerfield River or Beaver Brook. Currently, the Primary Agricultural (prime and statewide) found in Wilmington consists of 31% open land (not forested or residential).

Although agriculture is not extensive in Wilmington, the agricultural lands are an important resource that serves many functions including: providing local seasonal produce and planting materials; serving as an educational resource; and contributing to the rural character of the Town. According to the Town of Wilmington records, in 2015 Wilmington had a total of 475.3 acres classified as Agricultural land enrolled in the Use Value Appraisal Program (also known as Current Use). For Agricultural land to be eligible, participating owners must have a minimum of 25 contiguous acres (not counting the 2 acres surrounding any dwelling) to enroll in the program; the land must be land actively used for farming.

Agricultural land or farmland can be defined as presently or potentially productive crop, pasture, or range lands. Agricultural enterprise is defined as business activity directly related to agriculture. Usually farmland is cleared, although some forestry practices, such as tree farming or the cultivation of maple sugar bushes may be considered agricultural. Natural and human influence factors determine viability of farmland, both economically and in their ability to produce crops. Some examples of natural factors are soils, slope, and climatic conditions; some factors influenced by humans are accessibility, distance to services, development, and markets, and proximity to other agricultural land.

Forestry Resources

The total acreage of forestland in Wilmington is estimated at 21,200 acres (nearly 78% of the town). This includes woodland associated with existing residential uses. The forestland of Wilmington serves many functions including timber production, wildlife habitat, and recreation.

Woodlands of the town are comprised of both the northern hardwood and boreal forests. The hardwood forest is comprised of American beech, yellow birch, and sugar maple, in association with eastern hemlock, white birch, red maple, and white ash. Pioneer species after cutting or fire include aspen, birch, spruce, white pine or fir, depending upon site conditions. The spruce-fir forest is comprised of red, white, and black spruces, and balsam fir. Pioneer associations after fire or cutting may include those same species or hardwoods, depending upon site conditions.

The climate and soils have supported forests that have played such a major role in our economy that our woodlands are now third and fourth growth forests. The timber industry plays a lesser but still important part of our economy. The trees and wooded hills, which dominate the landscape and provide contrast with open fields and pasture land, serve as an important visual resource for the Town. The spruce-fir forest west of Lake Raponda is a special natural area.

According to the Town of Wilmington's records, in 2015 Wilmington had a total of 3,655 acres classified as productive forest land enrolled in the Use Value Appraisal Program. For forest land to be eligible, participating owners must have a minimum of 25 contiguous acres to enroll in the program (not counting the 2 acres surrounding any dwelling) and must manage the forest land according to the provisions of a 10-year forest management plan approved by the County Forester.

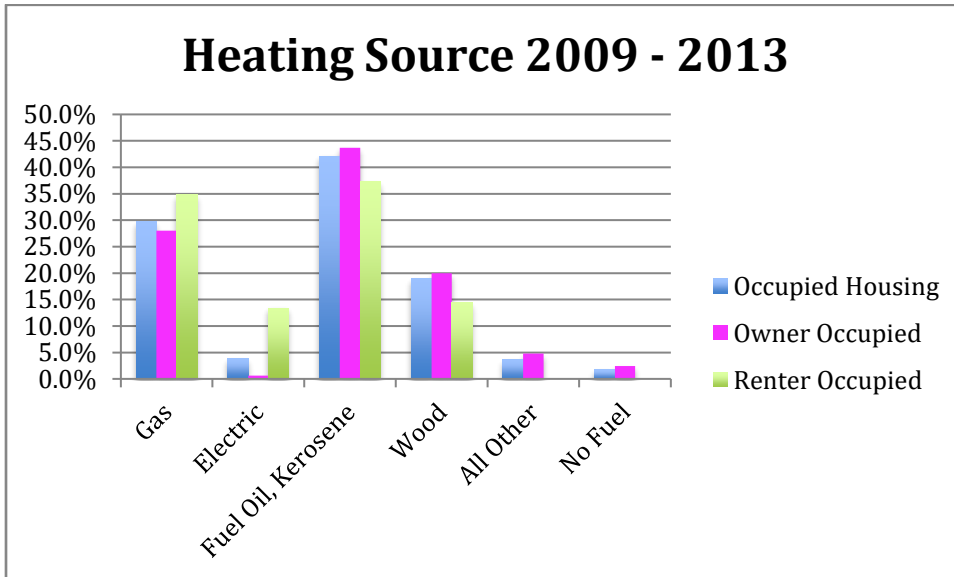
ENERGY

State and Federal government have far more control over energy supplies, sources, and pricing than regions or towns. However, regional and local efforts can play an important role in energy conservation and use of energy in residential and commercial development. Demand for energy in Vermont continues to grow, according to the 2016 *Vermont Comprehensive Energy Plan*, and is driven largely by population growth, economic development and increase in vehicular miles traveled. This section will focus on energy uses and sources and those local initiatives which Wilmington can undertake to have the greatest impact.

Energy Uses

Wilmington’s home heating sources closely match those of Vermont, which are shown in the following figure 36. In Wilmington, natural gas is not available, so the proportion of oil, propane, and electricity might be slightly higher than that shown for the entire state. According to the *Vermont Comprehensive Energy Plan (2016)* the per capita demand for energy in Vermont has shown steady growth.

Figure 39: Energy Type Owners vs. Renters 2009-2013



(Source: Vermont Housing Data: www.housingdata.org)

Heating Source	Occupied Housing	Owner Occupied	Renter Occupied
Gas	29.8%	28.0%	34.9%
Electric	3.8%	0.6%	13.4%
Fuel Oil, Kerosene	42.1%	43.7%	37.3%
Wood	18.9%	20.0%	14.4%
All Other	3.6%	4.8%	0.0%
No Fuel	1.8%	2.4%	0.0%

Home heating and automobiles account for significant energy use. The residents of Wilmington use a variety of sources for home heating. According to the 2010 Census, 42% of homes in Wilmington were primarily heated with fuel oil or kerosene. Other home heating sources include LP Gas (30%), wood (19%), electricity (4%), and the remaining from other sources such as coal/coke, geothermal or other fuels. These figures only represent the primary heating sources and do not indicate whether or not there are multiple fuel sources being used.

Wilmington is a rural town lacking public rail and continues to show a reliance on petroleum based fuels with a high number of vehicle miles traveled. See page 72 for workforce commuting characteristics. Wilmington has a rugged terrain, limiting the ability to adopt broad bicycle transportation in the past. The introduction of electronic motorized bicycles has the potential to change all of that as this new technology becomes mainstream and mountains become conquerable by other than supreme athletes.

Energy use for the Town government is much easier to quantify, since the Town budget includes energy line items. Energy line items for selected recent years are shown in Figure 40. Increases in the price of heating and transportation fuels accounted for close to a doubling of energy costs 2004 – 2009 but have experienced a decline 2009 – 2014 with a softening of fuel costs.

Figure 40: Annual Energy Costs for Town Facilities and Services

Energy Line Item	FY99	FY04	FY09	FY14
Elec – Municipal Bldg.	\$7,000	\$10,402	\$6,378	\$8,276
Oil – Town Garage	\$4,000	\$4,835	\$12,172	\$5,593
Elec – Town Garage	\$2,700	\$2,817	\$2,659	\$6,276
Equipment – gasoline & diesel fuel	\$16,000	\$25,679	\$90,842	\$68,906
Subtotal	\$29,700	\$43,733	\$112,051	\$89,051
Schools Utilities	\$104,796	\$125,500	No breakdown	No breakdown
Total	\$134,496	\$169,233	\$112,051	\$89,051

Source: Wilmington Town Reports

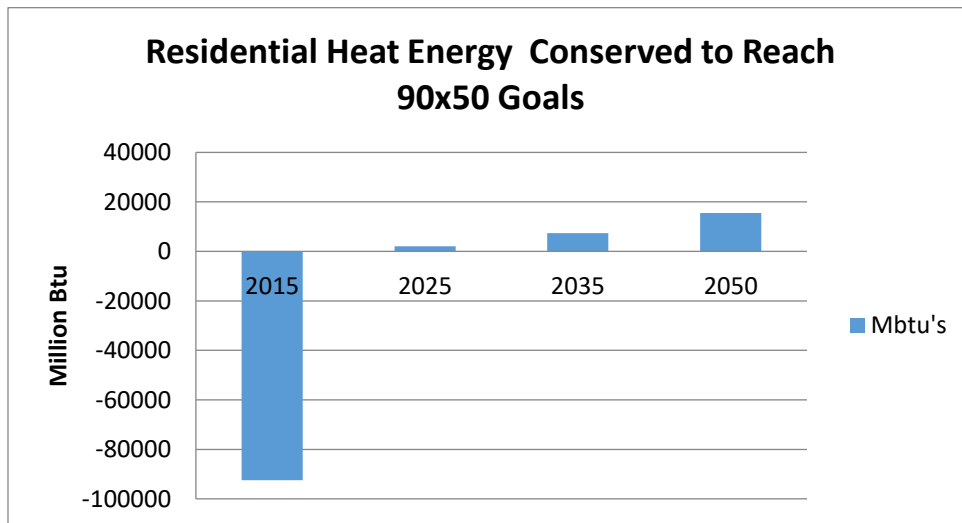
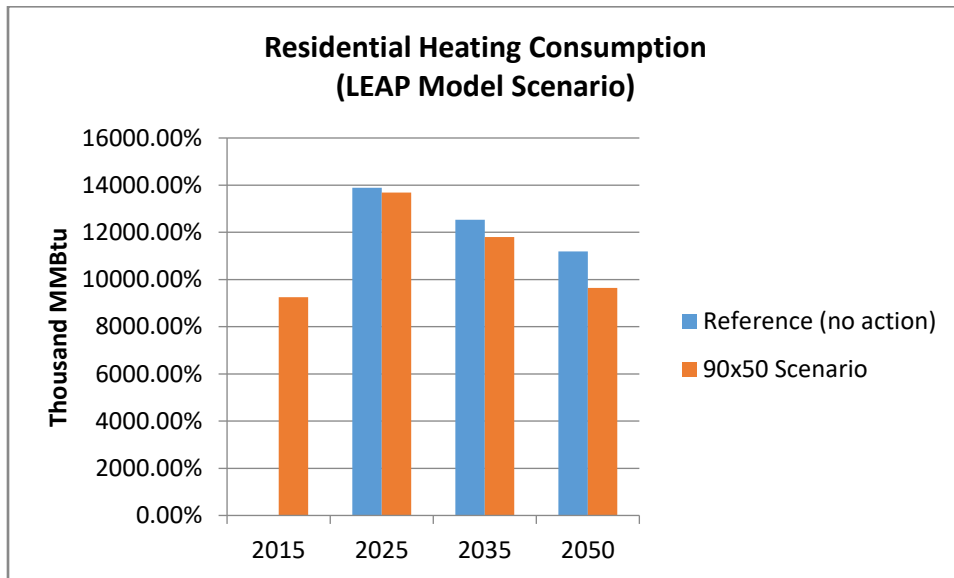
Establishing Energy Efficiency Goals for Wilmington

In May of 2017 the state provided the following Energy Efficiency goal estimates to the town. Working with these targets and the energy estimation tools provided by the state, The Natural Resources and Energy Implementation Subcommittee created through this Plan will work to identify local constraints and target areas for renewable energy generation with the goal of meeting the state and regionally defined goals for 2025, 2035 and 2050 as described below.

Figure 41: State of VT Efficiency Targets by Benchmark Years

Efficiency Targets at Benchmark Years (Standards 5B and 5E), Sheet "1. Workspace- Efficiency"			
Use/Sector	2025	2035	2050
Residential thermal (increased efficiency and conservation): Percent of municipal households to be weatherized over benchmark years to meet efficiency targets.	9%	17%	34%
Residential thermal (increased efficiency and conservation): Estimated number of municipal households to be weatherized.	213	415	852
Commercial thermal (increased efficiency and conservation): Percent of commercial establishments to be weatherized over benchmark years to meet efficiency targets.	9%	16%	30%
Commercial thermal (increased efficiency and conservation): Estimated number of commercial establishments to be weatherized.	11	20	37
Electricity: Number of kilo-watt hours to be conserved, annually, over the target years.	2,127,900	3,477,300	5,086,200
Electricity: Percentage of number of homes and buildings that will have been upgraded with electric efficiency improvements.	42%	68%	100%
Fuel Switching Targets (Standards 5C and 5D), Sheet "2. Workspace- Fuel Targets"			
Use/Sector	2025	2035	2050
Estimated new efficient wood heat systems overall (in units) in the LEAP 90x50 scenario (this includes both wood stoves and wood pellet burners for homes and businesses). <i>This number may decline over the target years, which indicates an overall trend toward energy conservation and building weatherizaing, which reduces the</i>	671	650	667
Residential and Commercial Thermal Fuel: Estimated new wood pellet systems only (in units) in the LEAP 90x50 scenario.	111	122	153
Residential and Thermal Fuel: Estimated new heat pumps (in units).	197	389	550
Transportation Fuel: Estimated number of new electric vehicles, in town.	136	962	2,031
Transportation Fuel: Estimated number of biodiesel-powered vehicles, in town.	208	399	690
Use of Renewable Energy (Standard 5B), Sheet "3. Workspace- Renewables"			
Sector	2025	2035	2050
Transportation (as a percentage of total Btu's consumed)	10%	31%	90%
Heating (as a percentage of total Btu's consumed)	56%	67%	93%
Electricity (MWh to be generated in town)	<i>"Targets_Generation_Town.xls" that was also given as municipal technical assistance. It provides target renewable generation over the benchmark years, in MWh, that can be</i>		

Figure 42: State of VT Residential Heating Consumption Targets by Benchmark Years



(State charts needs verification.)

Figure 43: State of VT Commercial Consumption Targets by Benchmark Years

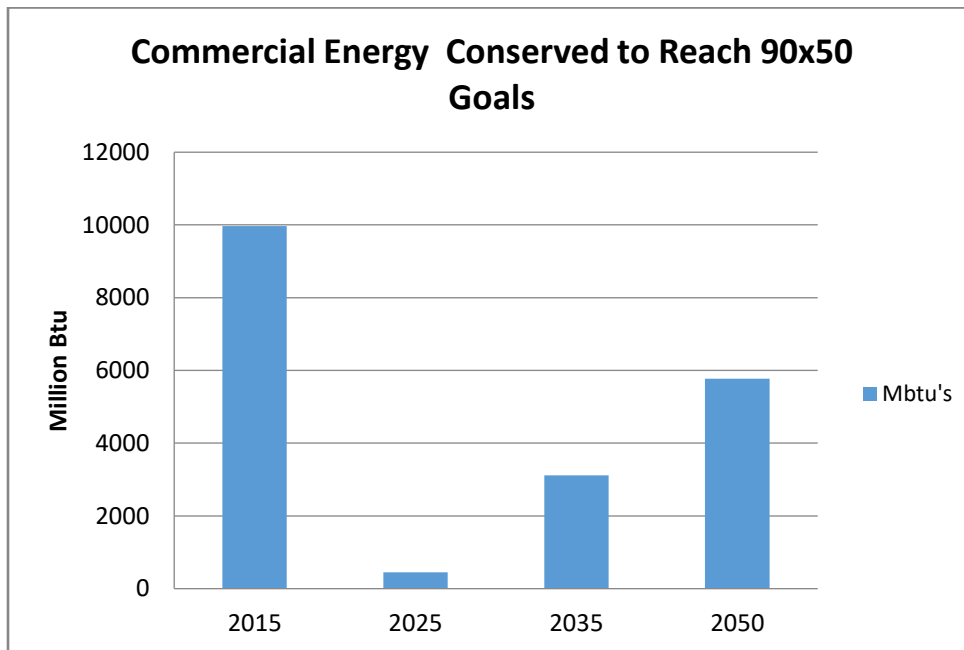
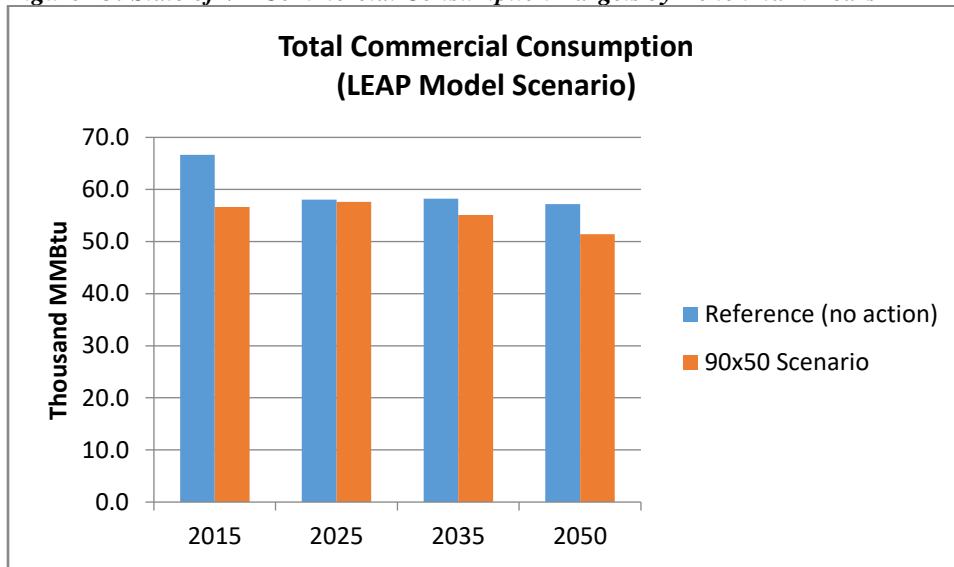


Figure 44: State of VT Light Duty Vehicle Consumption Targets by Benchmark Years

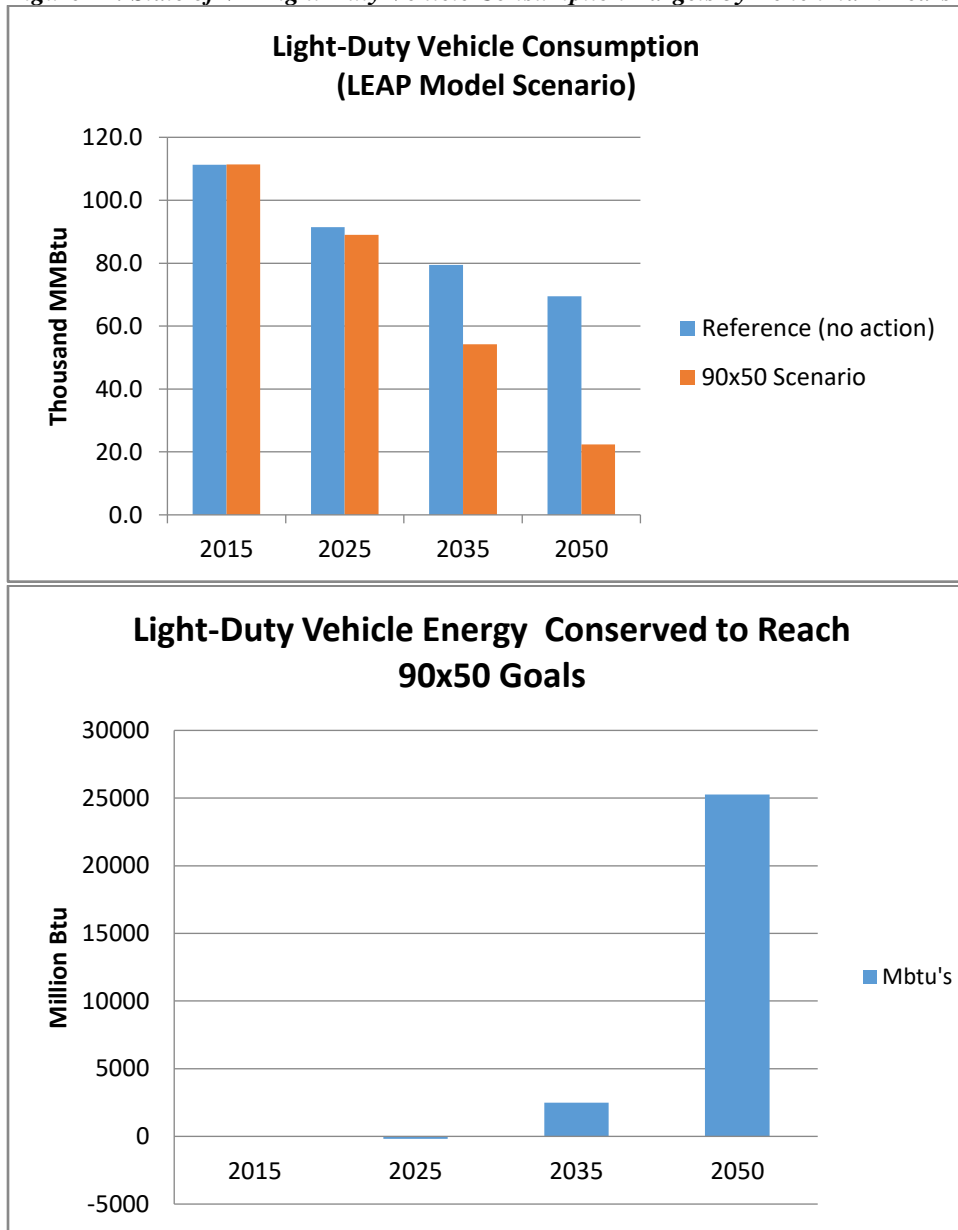


Figure 45: State of VT Heavy Duty Vehicle Consumption Targets by Benchmark Years

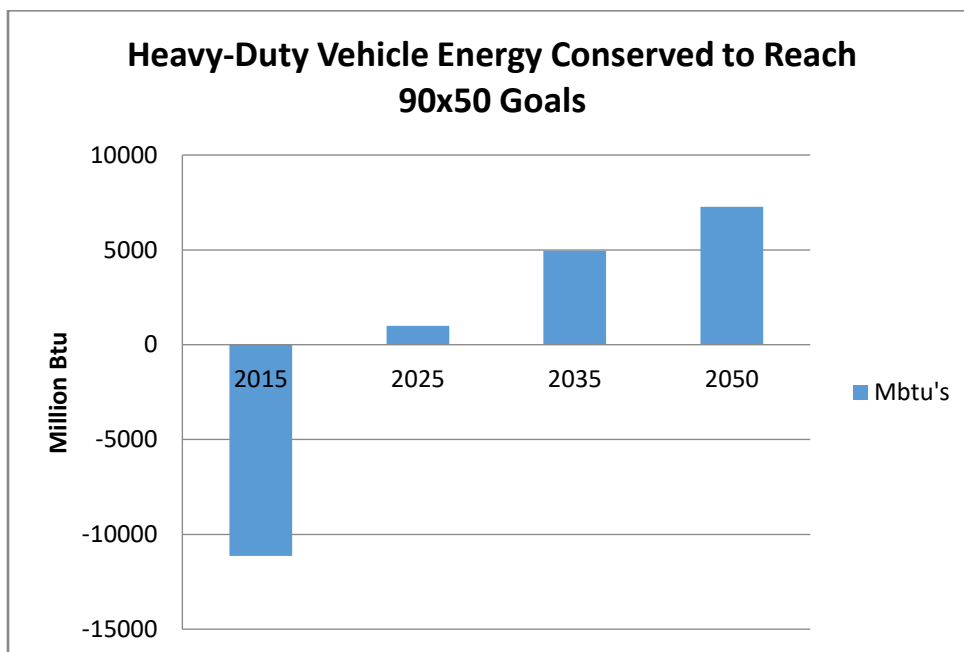
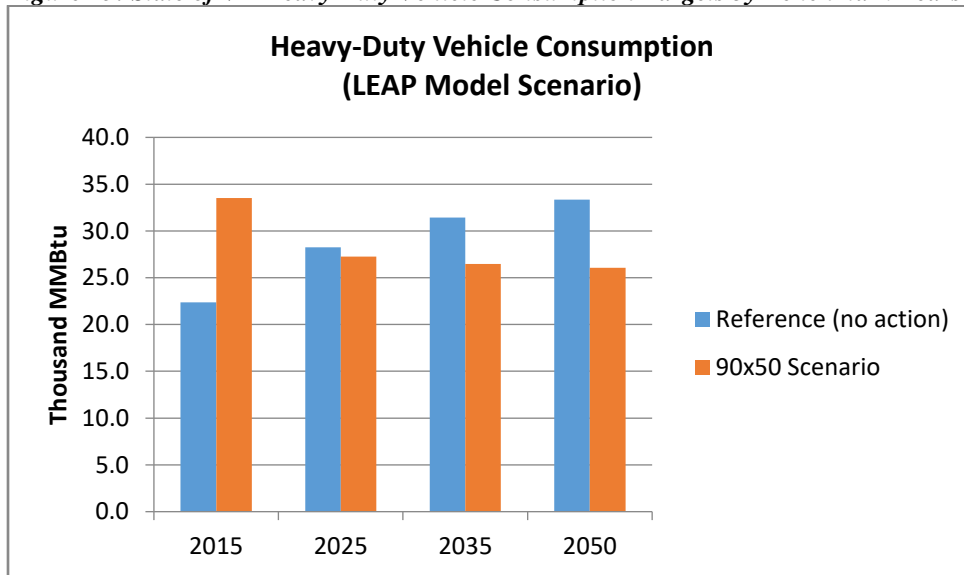
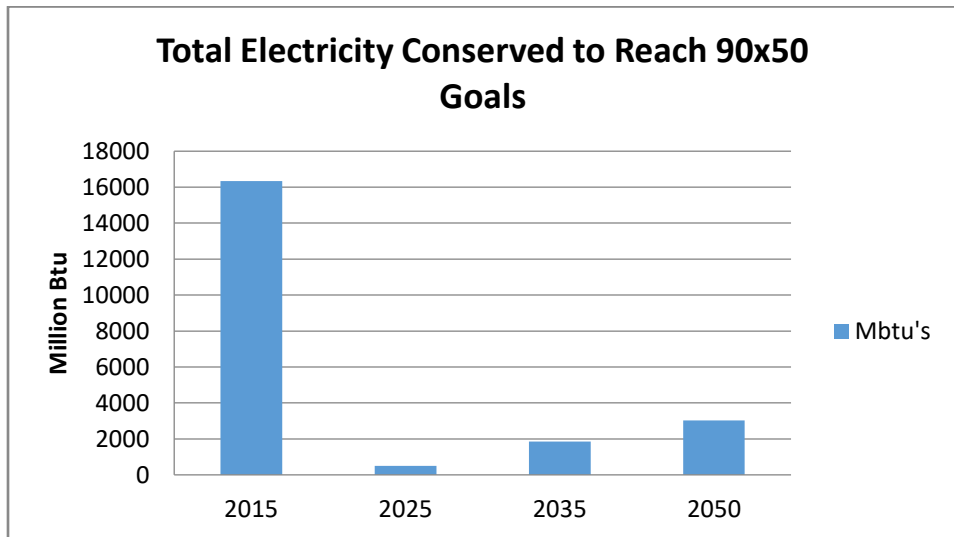
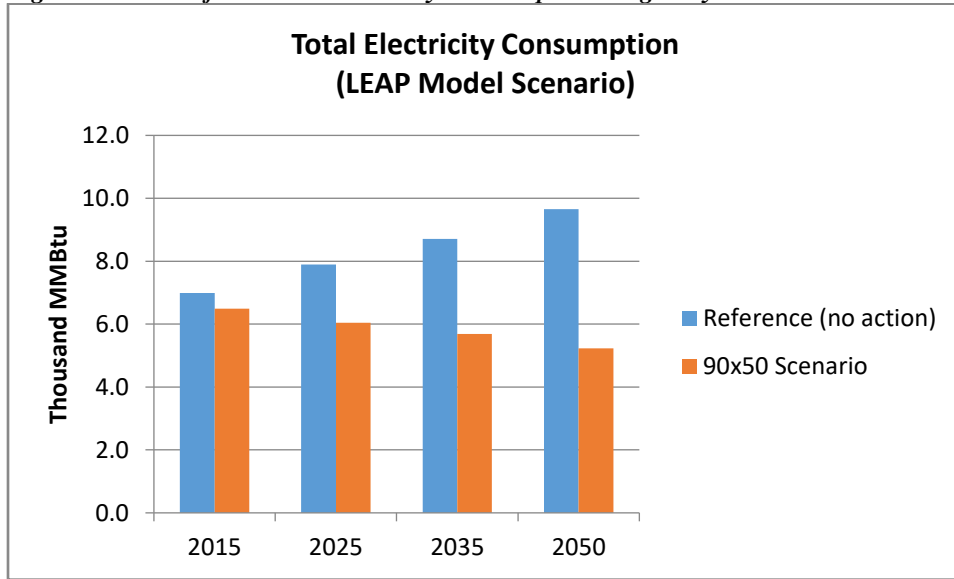


Figure 46: State of VT Total Electricity Consumption Targets by Benchmark Years



Energy Sources

Aggressive state goals to reduce reliance on fossil fuels has created a culture of change in energy consumption. Efficiency Vermont provides comparative electric energy consumption results to all residents and offers resources to assist in identifying energy saving opportunities. Green Mountain Power (GMP), providing electric services to Wilmington, is working in collaboration with solar developers to offer small roof-top or ground mounted installations to individual consumers, making significant movement toward renewable energy transitioning for the town.

As the movement toward renewable resources grows, through this Plan Wilmington municipality will take a leadership role in guiding in this movement by seeking renewable resources to meet the needs of municipal facilities and developing guidelines and regulations to best introduce renewable resources in a manner that best meets the needs of the community. With a public transportation system already fully dependent upon biofuels, Wilmington has demonstrated strong leadership in taking a large step in that direction.

Biomass

Biomass is any organic matter, plant matter or animal matter such as plant matter, forestry byproducts or animal waste that can be converted to fuel and is therefore regarded as a potential energy source. Wood is an example of a biomass. Burning biomass releases carbon emissions around higher than burning coal, but has been classed as a "renewable" energy source because plants can be regrown. Wilmington's farming and forestry management may provide opportunities for biomass energy production in the future.

Wood

Wood is a relatively low cost source of renewable energy. The Vermont Department of Public Service reported in 2000 that approximately 50% of the households in the region contained at least one wood-burning appliance.¹⁶ Oil and electric costs may spur a return to the use of wood as a home heating fuel, both in the form of cordwood and wood pellets. Wilmington has a large amount of woodland that, if effectively managed, could supply a reliable, local source of wood. With air pollutants an ongoing concern with wood heat sources a focus on new efficient wood burning heating devices would best serve the overarching needs of the town for an increase in renewable energy sources without increasing air pollution.

Net- Metering Solar and Wind

Net metering is one way in which homeowners can realize savings from operating a residential wind or solar system. Under net metering, a homeowner is permitted to connect suitable generating equipment to the public power grid. During periods when more energy is generated than the property is using, the metered amount of electrical energy provided to the grid reduces residential electric bills. In order to net meter, the homeowner must receive a Certificate of Public Good from the Vermont Public Service Board under Section 248.

¹⁶ Vermont Residential Fuel Wood Assessment 1997-1998, Vermont Department of Public Service, December 2000.

Solar

Joint ventures between Green Mountain Power and roof-top solar installers has seen a growth in solar installations in the town. The town of Wilmington encourages the safe, socially and environmentally responsible use of solar energy generation in a manner beneficial to the town and its residents, in conformity with the following Energy Siting Standards and Preferred Solar Locations.

Wind

Wind is another source of renewable energy that is being developed in Vermont on both large and individual scales. There are several factors that contribute to the siting of large scale wind-generating facilities:

- elevations greater than 2,000 feet
- proximity to electric transmission lines
- reasonable road access
- ridgeline locations
- wind speed

Currently, there is a wind generating facility in Searsburg with eleven functioning windmills. As of the writing of this plan another larger commercial wind facility in Searsburg and Readsboro is planned.

Small, home-based wind energy systems are being used in the region but high costs have restricted their growth. A global focus on renewable energy may make small projects more cost effective in the future.

Energy Installations (Solar and Wind)

Wilmington preferred siting of energy installations includes those sites that best protect the health, safety, economy, and character of the community as detailed in the Energy Siting Standards below.

As pertains to the siting of new electricity-generation, proposed system upgrades, associated access roads and utility lines, and site clearing in preparation for such development, energy projects are categorized as large or small:

- Large projects are ground mounted projects generating at least 150 kW or requiring clearing and/or development of more than one acre of land.
- Small projects are of less than 150 kW (less than utility scale) or requiring clearing and/or development of less than one acre of land.

Energy Siting Standards (e.g. Solar, Wind):

1. Demonstrated compliance with all federal and state statutes and regulations, including all procedures and Public Service Board regulations, as well as Wilmington ordinances to the extent permitted by law.
2. Demonstrated consistency with the policies, goals, and action steps in this Plan.
3. Decommissioning. Energy project developers shall present a satisfactory decommissioning plan, bond, or both.
4. No large energy generation projects (this excludes small energy generation such as solar hot water, heat pumps, etc.) shall be sited in Wilmington's unique, historic settlement, compact center (Village District), on agricultural lands and forests, in scenic vistas, and on significant tracts of relatively undisturbed or

regenerating natural areas that are considered valuable to the scenic value of the land. (See Land Use for further definition of scenic vistas.)

5. Gateways. Because Wilmington’s tourism economy depends on its historic development pattern and the aesthetics derived from that pattern, large projects shall not be sited within the viewshed of drivers on Route 100 or Route 9.
6. Recognizing the irreplaceability of Wilmington’s prime agricultural lands (primary agricultural soils as mapped by the U.S. Natural Resource Conservation Service), energy projects shall be sited to avoid conversion of such lands to energy production.
7. Recognizing the irreplaceability of Wilmington’s mountain vistas, energy projects shall be sited to avoid impact on scenic vistas, will protect natural resources and wildlife habitat, and will avoid clear-cutting of mature timberland.
8. Large solar projects shall be located in areas below the horizon from public and private vantage points and adhere, at a minimum, to the setback requirements set forth in Act 56 and all other applicable law.
9. Large wind projects shall be located out of the viewshed of Wilmington’s scenic vistas and tourism Gateways as defined in 5 above.
10. No energy development shall include any headwaters, streams, shorelines, endangered species, floodways, rare and irreplaceable natural areas, wildlife habitats, wetlands, endangered species, productive forestlands, or primary agricultural soils as defined in 10 V.S.A. chapter 151.
11. Hunting, fishing, and passive wildlife enjoyment are important to Wilmington’s history, lifestyle, and economy. To avoid adverse impacts on wildlife populations and human activities dependent on them, energy projects shall be located outside of critical habitat connectivity areas (see ---- Map) or if located within critical habitat connectivity areas, shall not involve fencing or other permanent structures that the Vermont Agency of Natural Resources determines would interfere with the movement of wide-ranging mammals and other wildlife through such areas. Energy project developers shall demonstrate avoidance or mitigation of impact on rare, threatened, or endangered species, including amphibians, reptiles, and fish.
12. Wilmington seeks to take advantage of new and developing technology which will minimize the visual impact of energy installations, such as solar roadway and sidewalk tiles or wind sculptures
13. All energy development shall adhere to the Standards of the Wilmington Zoning Ordinance including but not limited to Section 730:
 - E. Landscaping, Screening and Buffer Areas
 - F. Land and Water Management
 - G. Wastewater and Potable Water
 - H. Natural Resources and Features
 - I. Wildlife Protection
 - J. Shoreland Protection
 - K. Flood Hazard Protection
14. As applicable, solar projects shall include screening in conformity with Section 730 E Screening and Buffer Areas for Ground Mounted Solar Arrays and Related Unaesthetic Features.
15. As applicable, solar projects shall be developed in conformity with Section 732 J Solar Projects, including but not limited to setbacks and provision for fire safety.
16. Energy installation on structures shall have a central shut-off switch to deactivate electronic structures in the event of fire.
17. Roof-top solar installations shall include pathways for roof-top access for repairs or fire-fighting purposes.

18. For the purpose of meeting the “Quechee Test” as adopted by the Vermont Supreme Court for determining if an energy installation offends the sensibilities of the average person, “average person” shall be defined for these purposes as the members of the Wilmington planning and approval boards and committees, the Planning Commission and the Wilmington Select Board.

Preferred Wind Locations:

Wilmington enjoys the benefits of sitting within the beauty of the Green Mountains. Our mountain peaks and vistas contribute significantly to the character and beauty of the area as well as the tourism economy of the town. While these mountains have wind generation potential it is important to seek wind opportunities that do not interfere with the mountain vistas that make the town what it is. For that reason, Wilmington seeks to pursue other forms of renewable energy generation to meet our power needs such as:

- Individual property owner small wind generation projects
- Large wind projects only to the extent that they are in obscure locations out of the viewshed of the public

Preferred Solar Locations:

While locations meeting the criteria outlined below are all feasible, Wilmington seeks to locate solar installations in the following top tier siting preferences:

- town capped landfills and the surrounding town lands
- gravel pits or quarry’s
- rooftops of uninhabited spaces
- obscure locations that do not impact scenic vistas and forested land
- use of developing technology such as placement of solar in roadways and sidewalks

Preferred Solar Location Criteria:

For the purpose of obtaining a “joint letter of support from the municipal legislative body and the municipal and regional planning commissions,” net-metering systems” receiving preferred solar sites shall include:

- a. Parking lot canopy over a paved lot provided the location remains in use as a parking lot.
- b. Land certified by the Secretary of Natural Resources to be a brownfield site as defined under 10 V.S.A. § 6642.
- c. A sanitary landfill as defined in 10 V.S.A. § 6602 provided that the Secretary of Natural Resources certifies that the land constitutes such a landfill and is suitable for the development of a plant.
- d. The disturbed portion of a gravel pit, quarry, or similar site for the extraction of a mineral resource that was required by applicable law or permit condition are completed prior to the installation of the plant.
- e. A site listed on the National Priorities List (NPL) established under the Comprehensive Environmental Response, Compensation, and Liability Act 42 U.S.G. chapter 103, if the U.S. Environmental Protection Agency or the Agency of Natural Resources confirms that the site is listed on the NPL.
- f. Adaptive reuse of previously disturbed areas (such as greyfields, tracts previously legally developed with a structure or impervious surface) which are not in current use for such purpose and cannot reasonably be expected for reuse other than solar.

- g. Tracts of land on the same parcel as, or directly adjacent to, a customer that has been allocated more than 50 percent of the net-metering system's electrical output and never less than 50 percent allocation in the first 10 years of the net-metering operation.
- h. Any specific locations designated by the municipality in the Town Plan under 24 V.S.A. chapter 117 as a preferred site for the development of renewable energy plants or specific size or types of plants.

Energy Conservation

Conservation is the quickest route to energy production management. Preventing increases in energy demand through effective conservation is a far superior solution to developing new sources. Estimates vary as to how much energy can be conserved without significantly affecting lifestyles or convenience. Some estimates say that 20% is attainable by 2020, 10% of that in annual electricity and natural gas use alone.¹⁷

Regional and local efforts can play an important role in energy conservation. Reducing automobile dependency will go a long way towards reducing transportation energy consumption. In 2010 approximately 75% of Wilmington residents commuting to work drove alone. As discussed in the transportation chapter, the Deerfield Valley Transit Authority (DVTA) operates a free public transit system (MOOVER) within the towns of Dover, Wilmington, Marlboro, Readsboro, and Whitingham.

According to www.city-data.com, Mean travel time to work (commute) is 19.3 minutes.

Effective land use planning can promote energy conservation. Concentrated development in the villages could reduce reliance on the automobile and encourage people to walk and exercise, rather than drive, to nearby destinations.

The siting, design and construction of buildings strongly influences the amount of energy needed for heating as well as the amount of electricity needed for lighting. Separate subdivision regulations, which could include such siting standards, have not been adopted in Wilmington.

Energy savings can also be realized by retrofitting existing buildings with insulation, more efficient doors and windows, weather-stripping, compact fluorescent lights, on-demand water heating, and energy efficient appliances. The following programs are available to residents of Wilmington:

- Southeastern Vermont Community Action (SEVCA) - SEVCA offers a variety of programs that are designed to assist low-income residents with their energy costs. These programs include seasonal fuel assistance, emergency fuel assistance, and free weatherization services to reduce heating costs. In addition, SEVCA also works with electric companies in order to prevent disconnection and help negotiate payment plans. <http://www.sevca.org/weatherization/>
- Efficiency Vermont - Efficiency Vermont is the State's provider of energy efficiency services. They provide technical and financial assistance to electrical consumers for the purpose of improving the efficiency of existing and new facilities. Additional programs that support low-

¹⁷ Energy Efficiency Resource Standards: Experience and Recommendations; American Council for an Energy-Efficient Economy; March, 2006.

income housing and households are available through Efficiency Vermont.

<http://www.efficiencyvermont.com/pages/>

- ENERGY STAR Home Rebates - Energy Star Homes meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and U.S. Department of Energy. Efficiency Vermont provides free financial, design, and technical assistance to help build an ENERGY STAR qualified home. Benefits of being an ENERGY STAR home include financial incentives such as product rebates; utility savings; higher resale value; increased comfort and air quality; and other environmental benefits.
<http://efficiencyvermont.com/pages/Residential/SavingEnergy/HomePerformanceWithENERGYST/HomePerformanceFinancing/>
- Vermont Housing Finance Authority’s Energy Saver Loan Program -Administered by Windham and Windsor Housing Trust, this program offers low interest loan funding for homeowners for an energy audit and improvements specified in the audit. <http://www.helpforvt.org/loans>

Energy Vision

The community needs to focus on local initiatives it can take to lower Wilmington’s future demand for energy. Information on all potential alternative energy sources and conservation will be made available to the community. The Town will continue to lead by example and continue to carry out energy audits and energy conservation in all municipal buildings. The Town, through education and bylaw updates, will promote energy efficient siting, design, and construction of buildings.

State Regional Energy Goals by Type of Energy

Figure 47: State of VT Residential Targets by Type of Energy for Benchmark Years

1) Reference Scenario Total Regional Residential Heating Consumption Thousand MMBTUs					2) 90x50 Scenario Total Regional Residential Heating Consumption Thousand MMBTUs				
Branches	2015	2025	2035	2050	Branches	2015	2025	2035	2050
Biodistillates	-	-	-	-	Biodistillates	86	520	981	1,806
Cord Wood	7,579	6,982	6,497	5,884	Cord Wood	7,602	7,136	6,662	6,344
Electric Resistance	1,150	932	635	251	Electric Resistance	1,157	950	553	179
Heat Pump	116	653	1,231	1,698	Heat Pump	203	1,137	2,196	3,025
Heat Pump Water Heater	13	96	327	679	Heat Pump Water Heater	56	348	757	1,256
Kerosene	973	781	596	295	Kerosene	955	688	427	-
LPG	5,613	4,497	3,322	1,199	LPG	5,547	4,238	2,966	1,001
Natural Gas	4,846	6,290	8,084	11,840	Natural Gas	4,413	3,510	1,957	243
Oil	10,379	8,154	5,375	1,439	Oil	10,176	7,292	4,494	-
Wood pellets	644	853	1,053	1,362	Wood pellets	741	1,356	1,827	2,274
Total	31,313	29,238	27,120	24,647	Total	30,936	27,175	22,820	16,128

Figure 48: State of VT Commercial Targets by Type of Energy for Benchmark Years

3) Reference Scenario Total Regional Commercial Consumption Thousand MMBTUs					4) 90x50 Scenario Total Regional Commercial Consumption Thousand MMBTUs				
Branches	2015	2025	2035	2050	Branches	2015	2025	2035	2050
Biofuel	-	-	-	-	Biofuel	41	258	483	859
Distillate Fuel	3,874	3,130	2,273	928	Distillate Fuel	3,832	2,866	1,777	46
Electric Use	7,118	7,192	7,125	7,158	Electric Use	7,118	7,192	7,125	7,158
LPG	2,897	2,975	2,997	3,094	LPG	2,815	2,460	2,031	1,375
Natural Gas	2,791	3,390	3,961	4,967	Natural Gas	2,588	2,120	1,578	730
Residual Fuel	393	293	180	-	Residual Fuel	393	293	180	-
Wood and wood products	1,251	1,331	1,390	1,512	Wood and wood products	1,343	1,908	2,472	3,437
Total	18,323	18,311	17,925	17,660	Total	18,129	17,096	15,646	13,607

TRANSPORTATION

Existing Transportation Systems

Early settlers in Wilmington traveled by foot, horse, and ox cart and for many years animals were used to draw wagons, stage coaches, and buggies. Most homes had a barn that accommodated horses and horse drawn vehicles. Averill Stand (1787) was one of the major Inns on the Windham County Turnpike. There was a livery stable in the Village (located at the present Family Dollar store on Rte. 9) for boarding horses and housing vehicles. However, since the arrival of the automobile, people have depended upon it for transportation, hauling, and delivery. Recently the MOOver has been added to our transportation and is very successful.

There are many road issues to be addressed in the town to ensure not only sound maintenance but resiliency in a flood. Though a project funded by the Better Backroads program, Wilmington completed a “Town of Wilmington Municipal Road Erosion and Capital Budget (2015 -2019)”. This study will allow Wilmington to better plan for the many road development needs to ensure a flood resilient and effective transportation system.

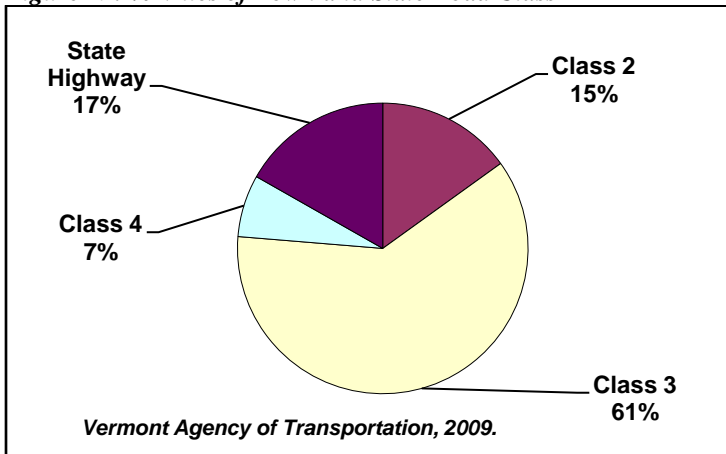
Roads

Much interest in the scenic value of Town roads and the need to preserve the natural beauty of the roads has been expressed by residents. Concerns over Town road standards in relation to scenic quality are one aspect of this issue. There is a general recognition that safe, well-maintained roads with scenic attractive road sides represent a valuable economic asset.

A scenic road inventory of all town roads was conducted by members of the Planning Commission and other interested people in 1992 and updated by the Planning Commission in 2010. The inventory was based on “Designating Scenic Roads - A Vermont Field Guide” developed by the Vermont Scenery Preservation Council and the Vermont Transportation Board (June, 1979). Scenic values such as vegetative patterns, vistas, water, rock walls, type of road, and historic sites were balanced with negative values, such as utility lines, landscape scars, and structures out of context, to come up with an overall rating for each road. These ratings and inventories are on file at the Town Office to help guide road reconstruction activities, and are shown on the Natural Resources Map in the map section. Roads with scenic value to the town will be managed to preserve the scenic value of the road while providing safe and efficient transportation systems.

Wilmington’s network of roads includes town roads and state highways. Wilmington is a crossroads town with Vermont Routes 9, east-west, and Route 100 (formerly 8), north - south, meeting at the traffic lights in the Village. The closest federal highway is Interstate 91, which passes through Brattleboro approximately 20 miles to the east. Vermont Route 9, a national highway system road, runs west from Brattleboro to Bennington. VT 100, Vermont’s interior recreational corridor, heads south into Whitingham and Readsboro and goes north almost to the Canadian Border.

Figure 49: % Miles of Town and State Road Class



In Wilmington VT 9 and 100 are 14.8 miles of state maintained roads that provide regional access to the town’s network of 67.3 miles of Class 2 and 3 Town-maintained roads (see Transportation map in the map section).

Approximately 6.1 miles of roads in the Town are classified as Class 4. No state appropriation is made for maintaining Class 4 roads. These roads are privately maintained for normal vehicular traffic and have a gravel surface. Prior to 2015 many of these class 4 roads were not reflected on VTrans Highway Maps; however, these have largely been updated to reflect now on VTrans maps. Effective July of 2015 any class 4 road not reflected on VTrans Highway Maps lost their status as a public right-of-way.

In response to Act 178 which required municipalities to identify “ancient roads”¹⁸ and formally map them if the town wished to retain them, the Wilmington Selectboard appointed the Ancient Roads Committee. The Ancient Roads Committee worked on an inventory of all existing Class 4 roads, town trails, and historic roads. The inventory lists the current classification status of all roads. The Selectboard decides which roads serve the public need.

Of the town-maintained roads, 23.2 miles are paved. The surface of the remaining 44.1 miles is a mix of gravel and dirt. Unpaved roads tend to limit the amount of traffic and discourage speeding, thereby promoting vehicle and pedestrian safety and, at the same time, helping to preserve the rural character of the town.

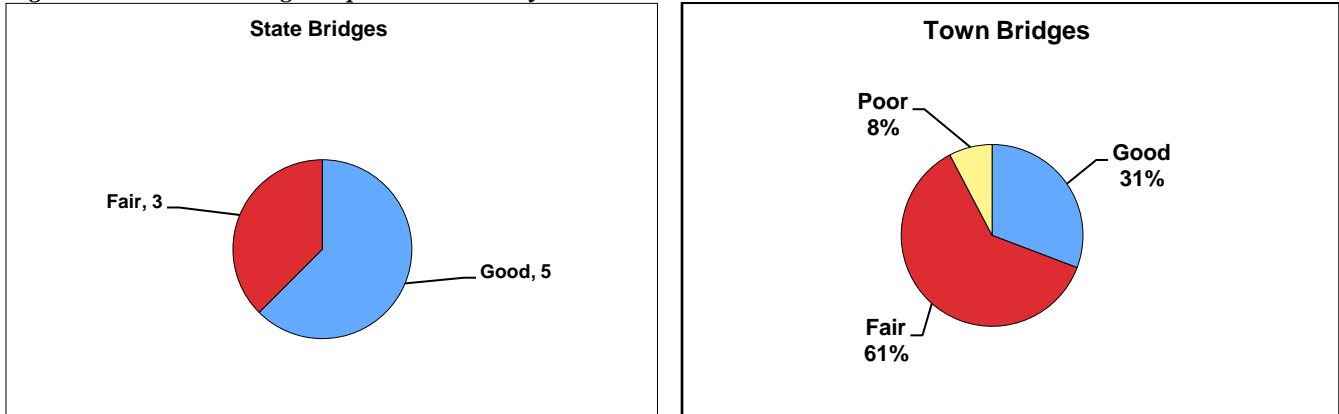
Bridges

Bridges in Vermont are classified according to length and by whether the ownership and maintenance responsibility lies with the town or the state. “Long structures” are those over 20 feet in length, and “short structures” are 6 to 20 feet in length. Structures shorter than six feet are classified as culverts, regardless of design.

18 An “ancient road” was a right-of-way not otherwise clearly observable by physical evidence of its use as a highway or trail.

The following table shows the condition of the eight state and thirteen town bridges in Wilmington. The rating system is based on the National Bridge Inspection/Inventory scale, which was last carried out by the Vermont Agency of Transportation in 2007.

Figure 50: National Bridge Inspection/Inventory



Bridge Statistics

National Bridge Inventory (NBI) Statistics

Number of bridges: 22*

Total length: 39 meters (128 ft)

Total costs: \$3,882,000

Total average daily traffic: 49,608

Total average daily truck traffic: 4,152

Total future (year 2015) average daily traffic: 70,161

*This is one more bridge than noted in the 2007 data above, accounted for by one bridge built between 2010 – 2012 (see below)

Figure 51: Age of Bridges

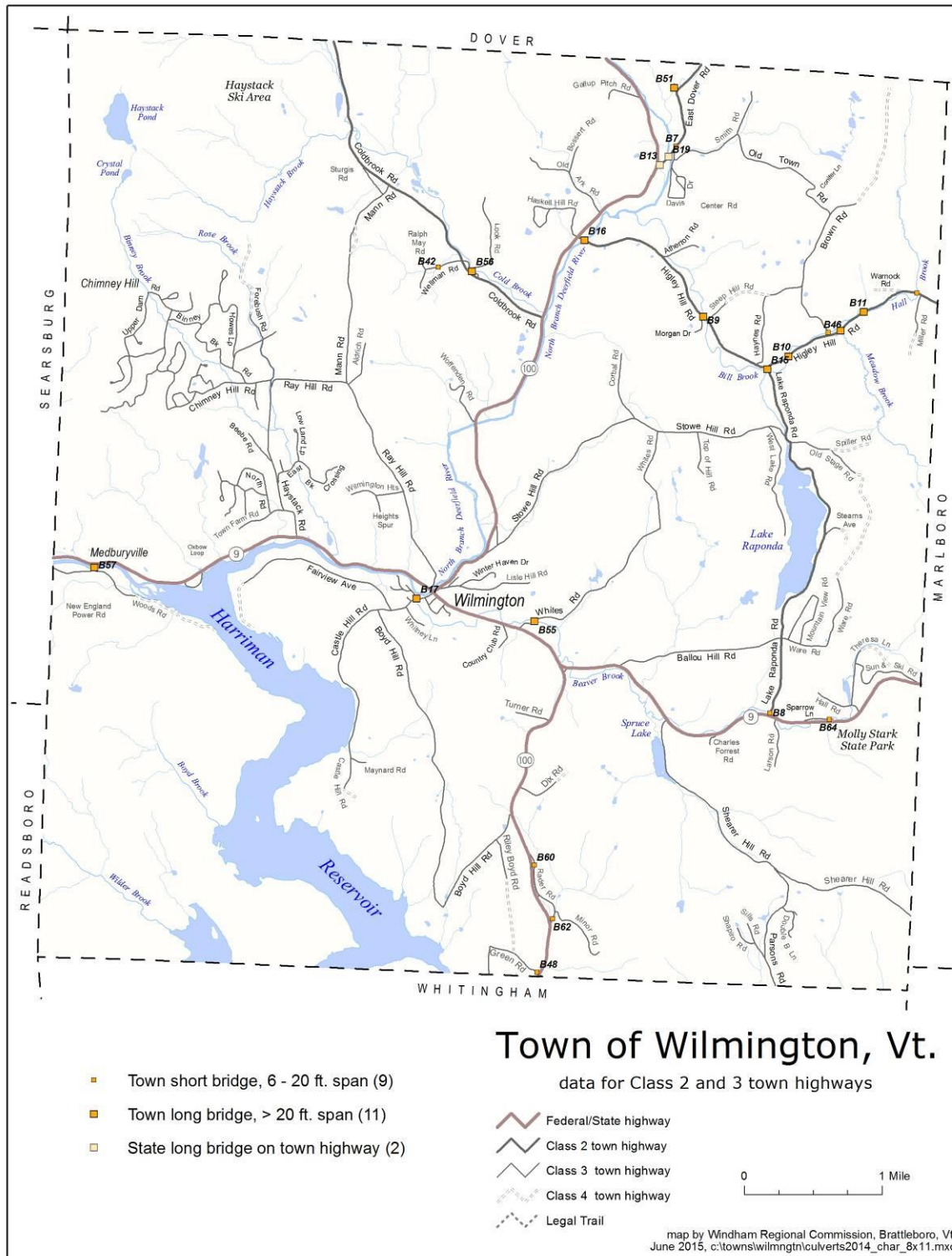
Ages of Bridges: New bridges - Historical

- 1930-1939: 14
- 1940-1949: 0
- 1950-1959: 2
- 1960-1969: 1
- 1970-1979: 1
- 1980-1989: 1
- 1990-1999: 2
- 2000-2009: 0
- 2010-2012: 1

Data Source

<http://www.citydata.com/city/Wilmington-Vermont>.

Figure 52: Town Highway Bridges



Culverts

In 2015, though a project funded by the Better Back Roads program, the Windham Regional Commission, collected culvert data for a number of sites throughout the Town of Wilmington. There are two studies underway,

1. one conducting a town-wide inventory of all culverts 36” diameter and greater (63 of them) to provide observations regarding road and stream interaction (e.g., erosion, scour, deposition).
2. another assessing all mid-sized culverts and another on the most critical secondary road culverts.

The second of these studies is available in draft form. Key findings follow:

This culvert inventory update was performed in 2014 and 2015. The Town of Wilmington Road Crew has been continuously updating the culvert inventory when new culverts are installed since 2006. These updates are made in the Vermont On-Line Bridge and Culvert Inventory Tool (VOBCIT, accessible at <http://www.vtculverts.org>). Windham Regional Commission did a review and assessment of all culverts three feet or greater in width in fall 2014 and spring 2015. WRC staff entered this assessment data, including photographs, into VOBCIT, and created final products (report, maps culvert listings, etc.).

Wilmington’s inventory contains detailed information on 861 culverts. The detailed information includes material, condition, width, height, length, header type and condition, presence of a drop inlet, and whether or not the culvert has direct output to a stream. For culverts three feet and greater in diameter, the report includes:

- a summary report of the culvert inventory, including several small thematic maps;
- a printed spreadsheet listing the more important columns of information about each culvert;
- a document with detailed information on culverts three feet and greater in diameter, along with photographs uploaded to VOBCIT; and
- a map showing the location of all culverts (culvert ID numbers on the map relate to the printed spreadsheet).

Number: there are 861 culverts inventoried on 67.36 miles of Class 2 and 3 Town Highways.

Figure 53: Culvert by Size, Condition & Material

Culvert Size

Size	Number	Percent
Less than 36 inches (three feet)	797	92.7
36 (three feet) to 71 inches	38	4.3
72 inches (six feet) and greater	26	3

Shown on attached thematic map, large map, and culvert atlas. Culverts 72 inches and greater are considered “town short” structures. Culverts 36 inches and greater have been assessed in detail by WRC.

Culvert Condition

Condition	Number	Percent
Excellent	368	42.6
Good	344	40
Fair	90	10.4
Poor or Critical	54	6
Unknown	5	1

Shown on attached thematic map and large map; assessed by Town of Wilmington Road Crew.

Culvert Material

Material	Number	Percent
Metal	469	54.5
Concrete	7	1
Plastic	381	44
Stone	1	<1
Mixed	3	<1

Shown on attached thematic map and large map; assessed by Town of Wilmington Road Crew.

Header Material

Material	Number	Percent
Stone	99	11.5
Concrete	425	49.4
Metal	1	<1
Plastic	1	<1
Unknown	297	34.4
No header	38	4.4

Shown on attached thematic map; assessed by Town of Wilmington Road Crew.

Figure 54: Culverts by Length

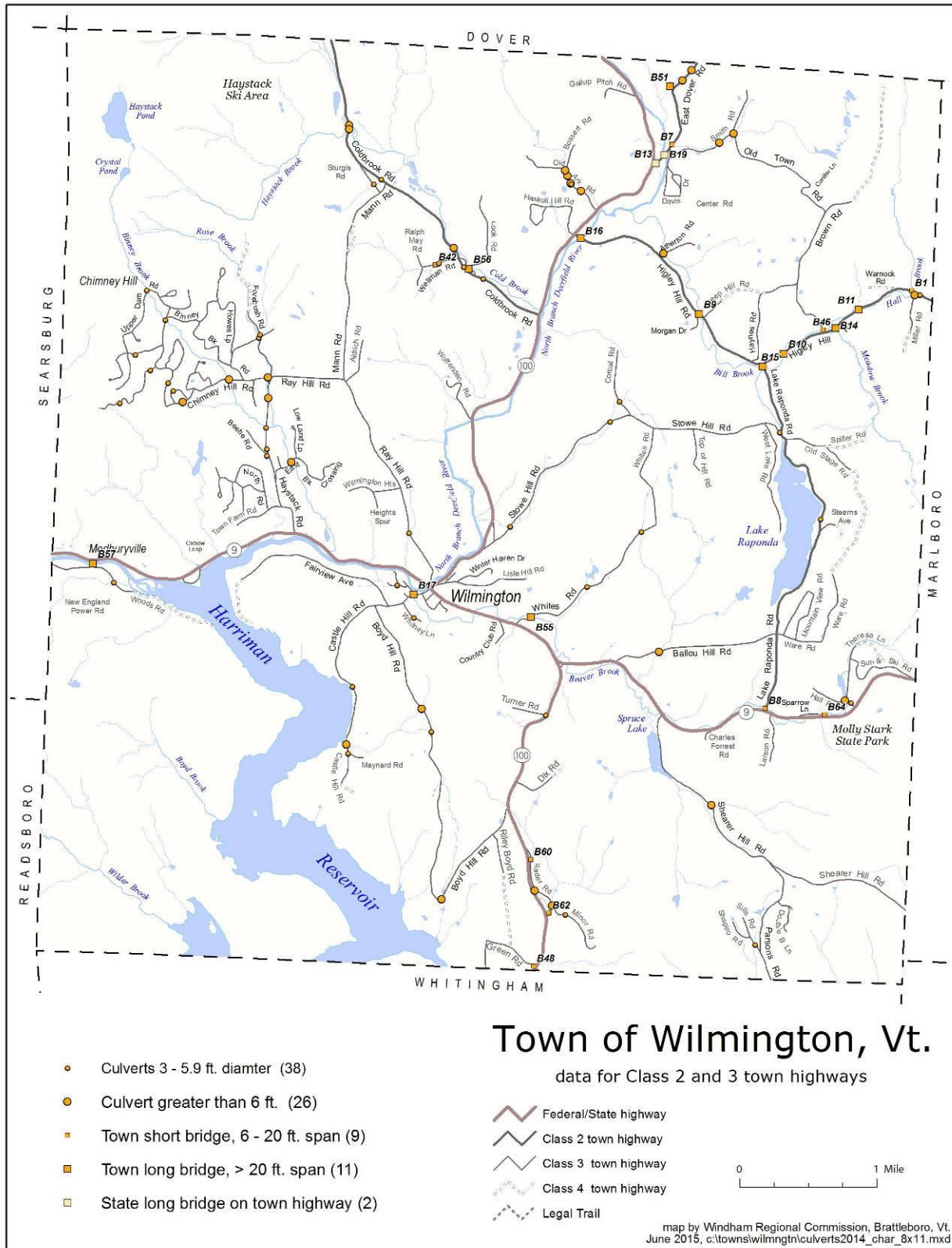
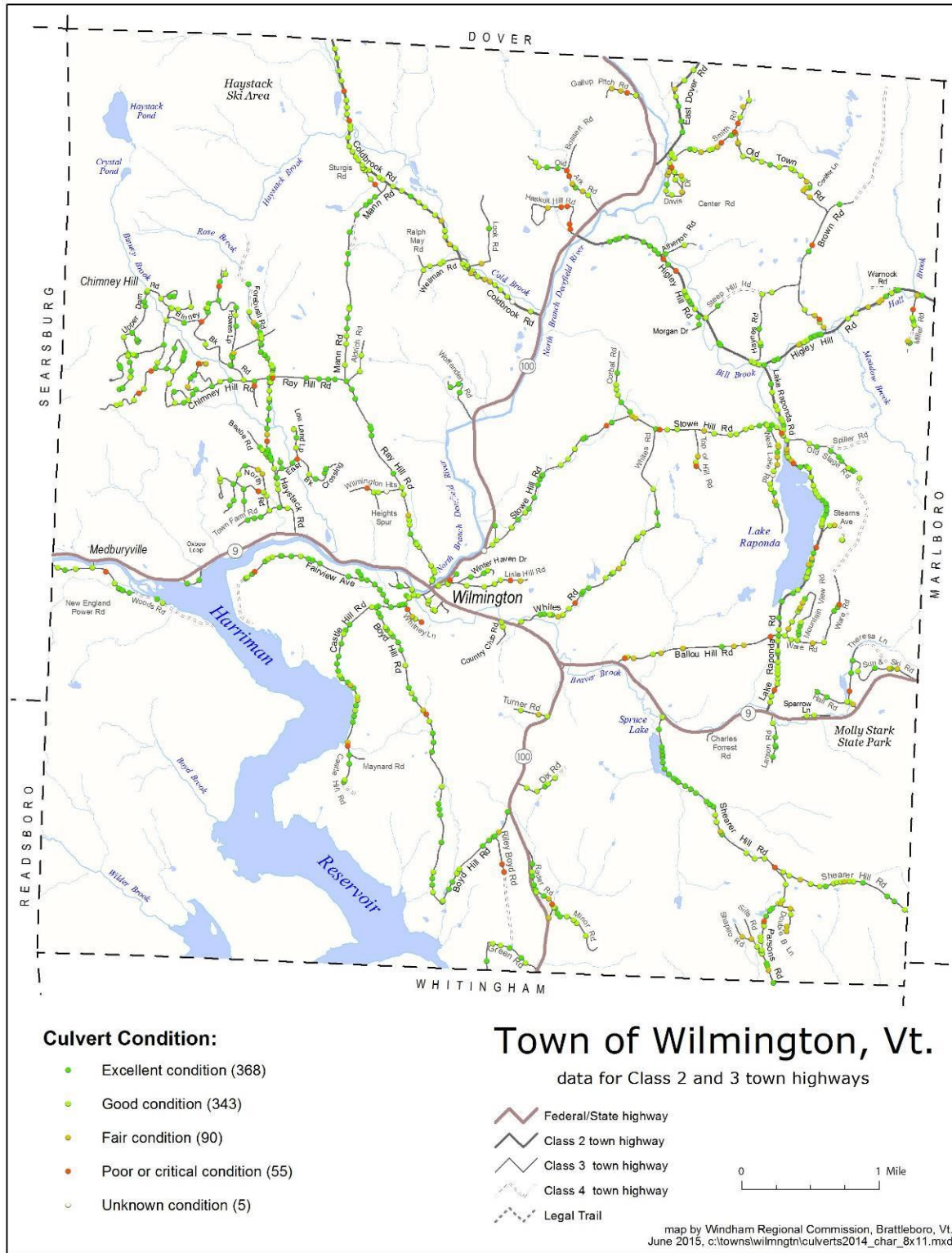


Figure 55: Culverts by Condition



While the final report has yet to be released, it is evident that Wilmington has a substantial number of culverts in Poor or Critical Condition (55) or Fair Condition (90). A substantial effort will be required to upgrade the many culverts in need of repair or replacement.

Culvert upgrades are undertaken on a case-by-case basis with consideration given to replace 25-year flood size with 100- year flood size as appropriate, and to install right sized culverts (ie: appropriate hydraulic capacity, allowing sediment , debris, organic matter, wildlife to pass through) as funds allow.

Culverts and Water Quality:

Windham Regional Commission (WRC) identified culverts with a direct output to streams (197 culverts).

Using digital elevation models and USGS topographic maps, WRC staff estimated road locations with a moderate or steep grade, defined as five percent or greater—22.67 miles, of which 7.59 miles were estimated to be at a grade of 10 percent or steeper. There are 259 culverts on road segments with moderate or steep slopes. The majority of these culverts are in excellent or good condition, but 15 culverts (nearly 6 percent) are in poor or critical condition. There are 93 culverts on road segments with steep slopes (10% or greater), six of which are in poor or critical condition.

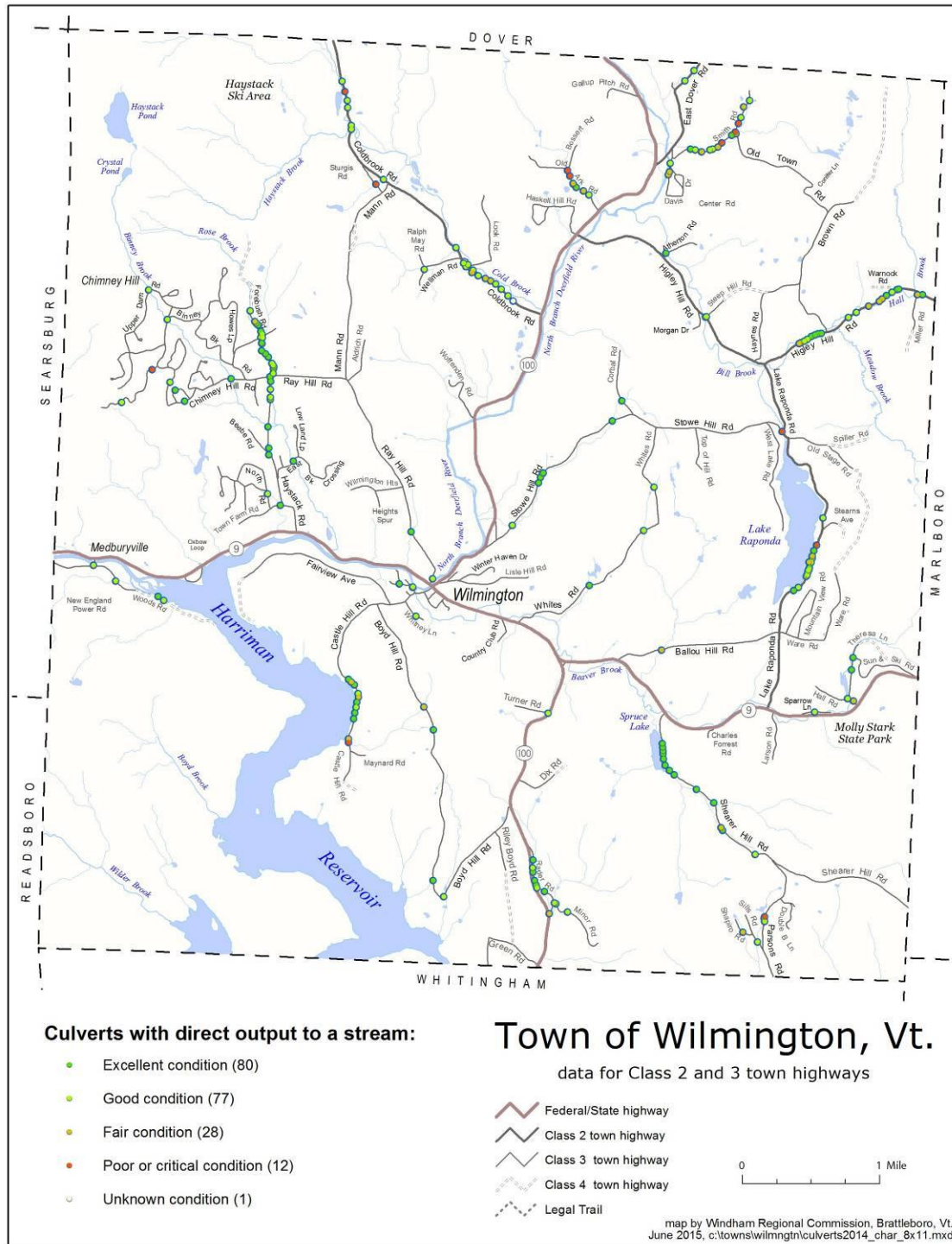
WRC examined in the field culverts three feet and greater in diameter for evidence of erosion. Of the 63 culverts three feet and greater, five had high erosion, and five had medium erosion.

Prioritizing Culvert Repair, Replacement, Right-Sizing

Key culverts to receive upgrades priority treatment include:

1. Those with output to a stream as these would have the greatest impact in the event of a flood.
2. Those on steep slopes as these are likely to experience erosion in the event of a flood.
3. Metal culverts as a rusty culvert is most likely to fail.

Figure 56: Culverts with Direct Output to a Stream



Culvert upgrades will better protect the residents of Wilmington in the event of another 100 year flood, which is considered somewhat likely given the increase in severe weather patterns and increase in precipitation, particularly in the northeast corridor of the country.

Costs of Upgrading Wilmington Culverts

Costs for culvert repair and replacement per culvert has not been fully completed but ranges widely from \$12,000 to over \$100,000 per culvert. Completing this project will take millions of dollars. Addressing just the most critical will be in the hundreds of thousands. This will be a key budget expense for years to come. The town has set as a goal repair or replacement of all poor and critical condition culverts in the next 5 years.

VT 9/100 Intersection

The state is highly motivated to relieve themselves of the burden of managing state highways that pass through town centers, such as Route 9 in Wilmington. While there are benefits related to local control over town center roads, there are substantial costs associated with such a takeover. One of the greatest costs associated with a possible takeover of Route 9 in the town center is the bridge in the center of town; “Dots Bridge.” The bridge design has proven to be an impediment to moving water through town in the event of a flood. While the state believes the bridge has an additional 30 year life span, the flood hazard created by this bridge is a more imminent concern. The town is not in a financial position to take on this extremely large expense. The town may explore opportunities for bridge replacement that could make taking over this section of the road economically viable. It is evident that the state is highly motivated to make this change. It will benefit the town to examine how to maximize the benefits that may be gained from such a transfer, before the state forces the issue. The town will continue to explore the viability of taking over East and West Main Street (Route 9) in the town center.

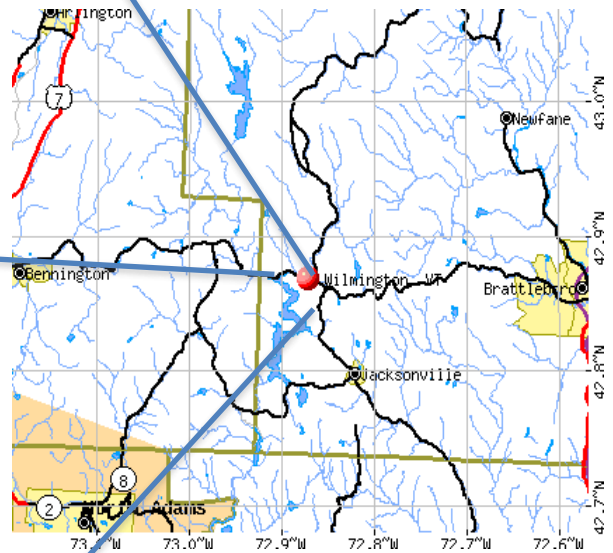
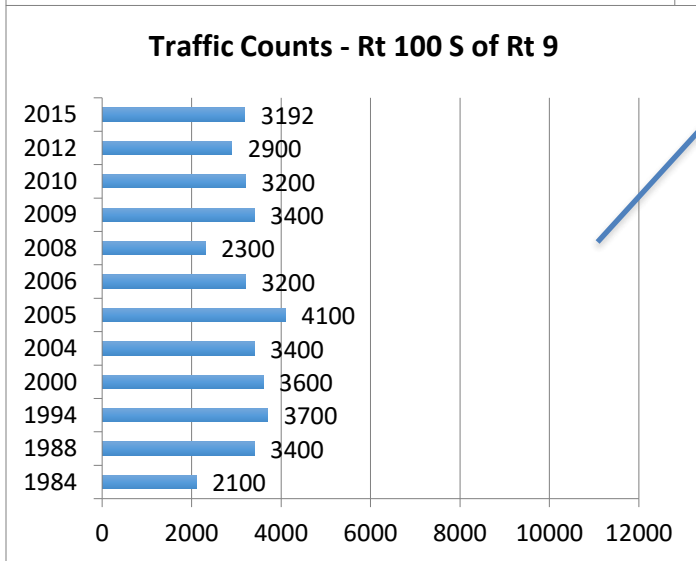
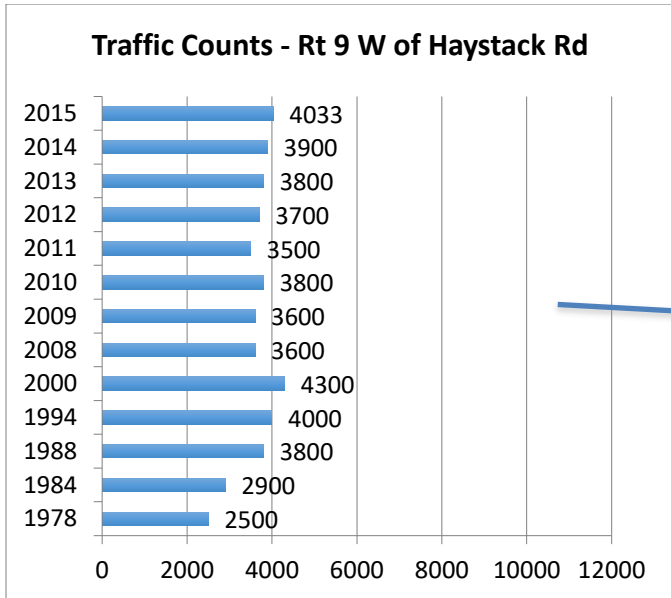
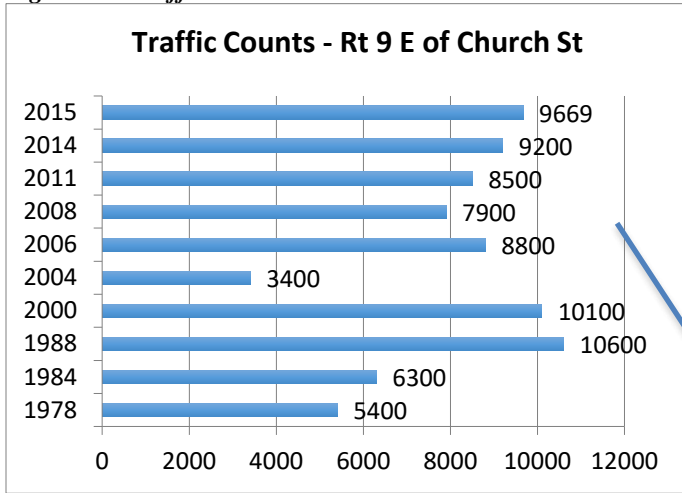
Traffic Volume Management

There has been a long-standing concern over the traffic at the junction of Routes 9 and 100 North, as well as concern over the heavy through traffic in the commercial center. The following charts¹⁹ show the best available traffic count data for VT 9 and 100. From these data it appears that there was generally growth in traffic volumes in the 80s and 1990s. By the 2000’s traffic volumes decreased a little and remained rather constant.

Annual average daily traffic, abbreviated AADT, is a measure used primarily in transportation planning and transportation engineering. It is the total volume of vehicle traffic of a highway or road for a year divided by 365 days. AADT is a useful and simple measurement of how busy the road is. It is also sometimes reported as “average annual daily traffic.”

19 Vermont Agency of Transportation, Automatic Traffic Recorder Station History 1978 – 2014.

Figure 57: Traffic Counts



Traffic Count Location Detail

1. Rte. 9 - 0.7 miles W of Haystack Rd
2. Rte. 9 - 0.0 miles E of Church St
3. Rte. 100 - 0.1 miles S of Rte. 9

Several ad hoc committees have been established by the Town to work on transportation problems. As early as 1972, the Planning Commission studied and reported on ways in which to address the Route 9/100 situation. To date the problem has not been solved.

In 1986 Wilmington and neighboring towns, in cooperation with the Windham Regional Commission, formed the Deerfield Valley Transportation Committee of six people, two each from Wilmington, Dover and Marlboro to both define the traffic problem and suggest possible solutions. A consultant was hired and the so called “Bruno Study,” completed in 1988, documented that there was a traffic problem at times (summer, fall and winter) well beyond the traditional design hour (usually the 30th highest hourly volume on an annual basis). The focal point of the problem was the intersection of VT Routes 9 and 100 North, and the increased truck traffic that compromised the quality of life in the village. The Committee continued its work by conducting another study to evaluate possible bypass corridors around the village.

In December 1992, the Vermont Agency of Transportation (VTrans) replaced the traffic light with a more sophisticated model and installed another traffic light on VT 9 and its junction with Ray Hill Road to help alleviate congestion. Around this time VTrans hired a consultant, VHB, to begin evaluating bypass alternatives for a Federal Environmental Impact Statement (FEIS). The consultant looked at alternatives developed by the Deerfield Valley Transportation Committee as well as additional possibilities. In June 2005, based on the results of much community involvement and a Special Town Meeting, the citizens of Wilmington voted to oppose the Wilmington Bypass.

VT Route 100 Corridor Study

Wilmington participated in the *VT Route 100 Corridor Study* (Windham Regional Commission, January 2002) which documented lack of access controls, speed, and volume of traffic and safety issues along the corridor. Of particular concern to the Town, in the report, were the following issues. Noted in parentheses is work that has been completed since the original report.

Wilmington Town

- Shoulder width and pavement condition is poor in most areas (some of which have been paved recently).
- The poorly configured VT 9/100 south triangle intersection (was reconstructed in 2008 to correct for a variety of vehicle movements and lessen speeding).
- Several commercial and residential driveways connections north of the Village are located along sharp curves with higher speeds and poor sight distances
- Signs on Rte. 100 (have been installed to prohibit parking on shoulder) during ball games at the Deerfield Valley Elementary School.
- Poor sight distance for drivers exiting Higley Hill Rd.

Wilmington Village

- Uncontrolled access to a number of businesses creates unsafe situations for pedestrians and motorists.
- Village pedestrian facilities are satisfactory for the most part, but lacking continuity and adequate width in several places.
- There is no apparent gateway to the Village on Rte. 9 at either end.
- The Village is plagued by traffic congestion, noise and air pollution caused by large truck through traffic and weekend winter ski traffic.

Alternative Transportation

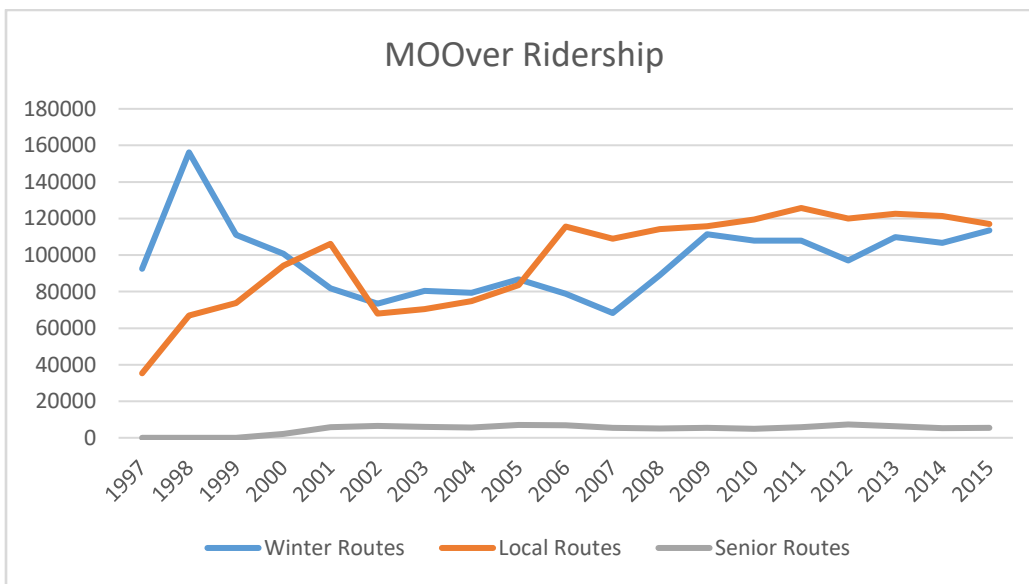
Public Transportation

Southern Vermont Transit, also known as the MOOOver, is one of the most highly utilized public transit system in the state. Continuing to expand on the success of this public transit system will well serve the energy conservation goals of the town.

The MOOOver, a division of Southern Vermont Transit (SEVT) is a public bus service that serves riders free of charge along the VT 100 corridor from West Dover to Readsboro, with regular scheduled stops in Wilmington and other stops on demand. From Wilmington, riders can catch a bus that travels along the VT 9 corridor to Brattleboro and Bennington. For elderly or disabled riders, SEVT provides both an on demand van service and volunteer drivers for medical appointments.

During 2015 the MOOOver moved to their new maintenance and operations facility at the former Barnboard Factory site adjacent to the Village.

Figure 58: Public Transportation - MOOOver Ridership



	2011	2012	2013	2014	2015
Winter Routes	107951	96961	109756	106601	113541
Local Routes	125747	119937	122677	121362	116919
Senior Routes	5795	7305	6281	5199	5524

(Source: Southeast Vermont Transit/MOOOver, 2015) excludes parking lot and charter volumes

Non fossil Fuel Vehicles

Wilmington currently offers no electronic charging stations for vehicles. Introducing charging stations in the downtown will open the pathway for the growing demand for electric and hybrid vehicles. Charging stations will also allow for the longer term conversion of electric or hybrid municipal and public transportation vehicles.

Park and Ride Commuter Parking

Wilmington commuter parking is located in the “Municipal Lot “on the corner of Beaver St and South Main St. Expanding the commuter lots will allow for a growing population of ride-share options such as car and van pooling.

Transit Service provided by the MOOver:

Total number of spaces: 43

Total number restricted: 7

Park and Ride lot features: paved, lined, lighted, shelter

2/22/2016 Park and Ride count results, weather was rainy and 50 degrees

Total vehicles using lot: 18

Total handicap vehicles: 0

Air Transportation

Limited air transportation for private planes is available at the small airstrip in the adjoining town of Dover. In recent years HIREHC has acquired the airport, repaved the runway, upgraded the services, and plans a runway extension and expansion of the obstruction-free zone to accommodate receiving small jets.

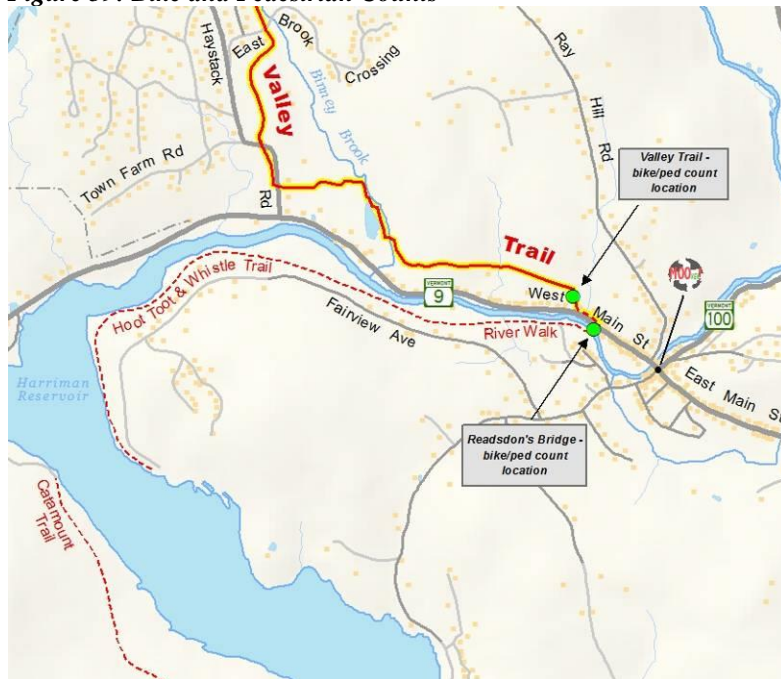
Bicycle and Pedestrian

At present, there are limited sidewalks and crosswalks in Wilmington Village and no bike paths in the Town. However, through the acquisition of grants and town matching funds Wilmington is in the process of installing a new sidewalk along West Main Street and has been approved for funding for sidewalk improvement along East Main Street and South Main Street. Improved sidewalks in our downtown will do much to improve the walkability of our most immediate downtown area.

Broader long-term sidewalk extension goals, beyond those mentioned above, will better serve the flow of pedestrian traffic throughout the entire village. The town will continue to work toward improved town walkability and bicycle pathways in the following areas.

1. To the east on the north side of Rte. 9 to the intersection with Rte. 100, continuing south on Rte. 100 to The Health Center.
2. West Main Street past Reardon’s Bridge, past the hiking trail, to the last of the stores located on West Main Street. With the hiking trail and several business, stores and hotels on that end of town they see frequent tourist walkers. The absence of a sidewalk or other safe walking area forces hikers and tourists alike to skirt the side of this major thoroughfare.
3. North on Rte. 100 past Lisle Hill Rd, up to The Bowling Alley; with particular focus on the curve by Fat City which lacks sidewalk or curb through a very narrow blind turn.

Figure 59: Bike and Pedestrian Counts



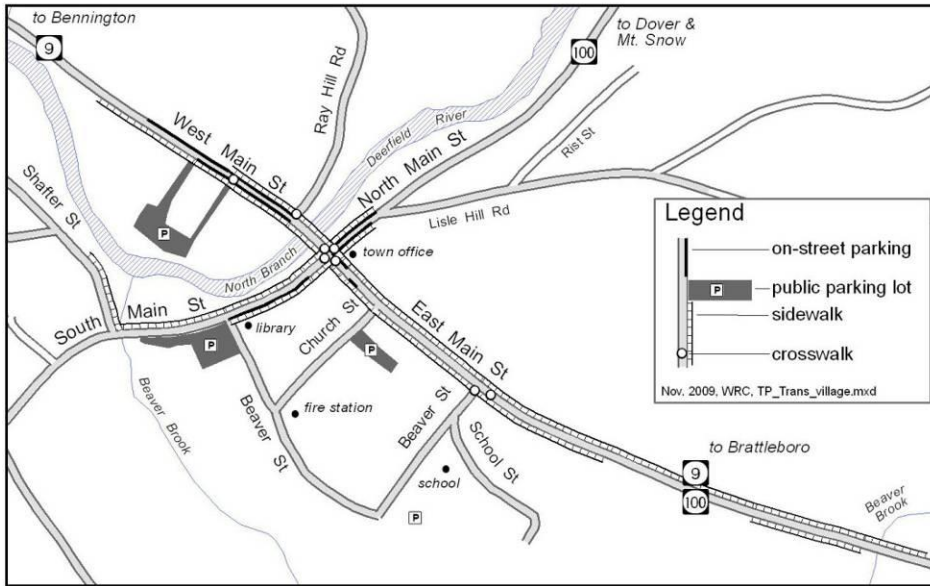
Bike & Pedestrian Counts – Wilmington, VT

A “hit” is considered when something emitting body heat (i.e., human, dog, deer, etc.) passes the bike/ped counter. A “hit” could be a person passing the counter on the way in and the way out.

Reardon’s Bridge

06/12/15 – 6/19/2015, counter attached to bridge in the middle; 534 total hits
 10/7/15 - 10/18/15, counter attached to bridge in the middle, 1959 total hits
 08/1/14 – 8/7/14, counter attached to bridge in the middle, 650 total hits

Figure 60: Sidewalks



The Town of Wilmington and Wilmington Works are committed to making streetscape, lighting and sidewalk improvements in the downtown area and beyond. A comprehensive scoping study, completed by Dubois and King in 2015, will guide this work: to begin with the construction of a new sidewalk, railing and lighting on West Main Street, slated for completion in 2016.

Concerns about pedestrian safety as well as walk and bike-ability in the village will continue to be addressed as funding is secured to complete this multi-phase project.

Parking

The need for additional parking in the Village continues to be a concern for the Town. Several efforts have been made since the devastation of Tropical Storm Irene in 2011.

- The former South Main Street lot was improved and established as a Park & Ride lot in Town.
- The Church Street lot originally used for parking for town officials has been opened up as a public parking lot
- The town leased the area behind several West Main Street merchants and created a public parking lot with 40 spaces and a walkway out to West Main Street.

Windham Regional Commission GIS staff inventoried parking spaces in the downtown area of Wilmington village November 23 and December 3, 2015, and March 1, 2016. In the Downtown District all public, commercial and most residential private parking, as well as some private parking outside of but adjacent to the Downtown District were inventoried.

The inventory consists of a GIS database with several components.

- Each public or private parking space is represented by a point.
- On-site customer parking is considered private parking.
- Most parking spaces were not striped.
- Where not striped, the location and number of parking spaces were estimated by measuring the length (for parallel parking) or width (for head-in parking) of the entire area and calculated the number of parking spaces using 8' x 18' parking space dimensions with longer length for parallel parking spaces. (Note the Wilmington Zoning Ordinance passed July 2016 requires all commercial parking spaces be 10' x 18'. Smaller parking spaces are allowed only where circumstances calling for added spaces outweigh the risks and public inconvenience of smaller spaces.)

In some places, it wasn't clear where, or if, parking regularly takes place. The study operated under the assumption that when parking is at a premium, people will utilize whatever space is reasonably available to them.

Each public parking space point is identified as:

- on or off street; Wilmington
- striped or not striped;
- paved or unpaved; and
- restricted or not restricted.

Restricted public spaces are generally handicap parking or limited to carpools.

Each private parking space point has the same information, with the exception of on or off street (all private parking is off street). Restricted private spaces are generally handicap or not for customer use (employees or building tenants only).

For mapping and display, the database also contains “areas” (polygons) not points of public parking lots, and in certain locations, contiguous areas of public parking, coded with the total number of spaces.

Public parking

- 138 public parking spaces were found (all of which are within the Downtown District)
- 54 public spaces are on-street parking, while 84 are off-street parking
- 5 spaces are restricted to handicap parking
- 5 spaces are restricted to commuter parking

Parking area	Spaces
Church St parking lot	17
South Main St parking lot	45
West Main St parking lot	22
East Main St (on-street)	6
North Main St (on-street)	14
South Main St (on-street)	10
West Main St (on-street)	24

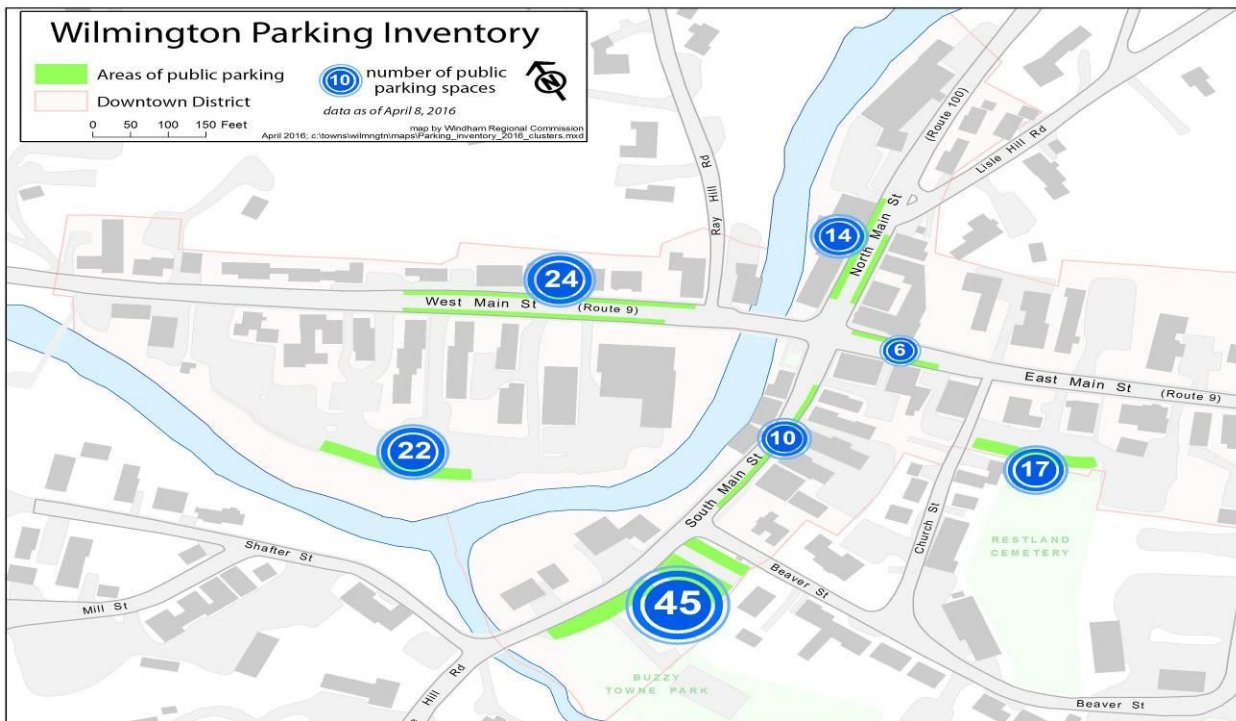
Private parking

- 290 private parking spaces were found in the Historic Design Review District; all commercial spaces were inventoried, and most, but not all, residential spaces were inventoried
- 524 total private parking spaces were inventoried overall; this includes selected areas outside of, but adjacent to, the Downtown District
- parking spaces off School Street were considered private as they are primarily used for the old high school building

Figure 61: Parking Inventory- Public, Private & Restricted



Figure 62: Parking Inventory- Number of Spaces



Access Management and Traffic Calming

Truck traffic, speeding vehicles, truck noise, and lack of pedestrian safety are all concerns that have a negative impact on the quality of life in Wilmington. The Town realizes that a number of businesses are dependent on traffic along VT 9 and 100. At the same time, the town realizes that as the number of curb cuts or driveways increases, so does the rate of accidents.

Access management is a process for controlling access to roadways such that the function and safety of the transportation system is preserved while reasonable access is provided for the development of land. Developing access management guidelines, such as limiting number and width of curb cuts, could improve safety conditions along VT 9 and 100. Guidelines of this nature would promote desirable land use patterns, reduce traffic congestion, and improve pedestrian safety.

Future Transportation Systems

Wilmington as a rural town will continue to rely on motor vehicles as the predominant form of transportation. Existing roads in the town will continue to be maintained as they are currently and no new town roads are planned.

Bicycling and walking as forms of transportation must be enhanced in Wilmington where feasible, along VT 9 and 100; and the road shoulders should be expanded to accommodate bicycling. In Wilmington, where appropriate and feasible, sidewalks, crosswalks, parking and traffic calming treatments should be added. The Village's contribution to the local economy can be enhanced if people are encouraged to stop and visit. This could be accomplished by increasing parking availability and signage as well as concentrating on the aesthetic quality of being “in the Village.”

Public transportation will continue to be provided to and from Wilmington along VT 100. Transportation for the elderly and disabled will continue to be enhanced. Carpooling as a possible alternative to driving alone should be promoted.

FLOOD RESILIENCE

Wilmington has land, homes and businesses that are susceptible to the two types of flooding impacts: flooding or water inundation occurs during high water on extensive acreage along the Deerfield River. Both river erosion (when river or stream jumps its bank and rips through an area) and flooding are potential along both the upper Deerfield River and the North Branch of the Deerfield River, and Beaver Brook, as well as along the streams that drain watersheds extending to our borders, particularly those with Dover and Marlboro.

In 2013 Vermont enacted Act 16, An act relating to municipal and regional planning and flood resilience, which requires that all municipal and regional plans effective after July 1, 2014 include a “flood resilience element” pursuant to the purpose and goals of 24 V.S.A. §4302 - Purpose; Goals - subsection (c)(14):

(14) To encourage flood resilient communities.

(A) New development in identified flood hazard, fluvial erosion, and river corridor protection areas should be avoided. If new development is to be built in such areas, it should not exacerbate flooding and fluvial erosion.

(B) The protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion should be encouraged.

(C) Flood emergency preparedness and response planning should be encouraged.

Act 16 also amended 24 V.S.A. § 4382 - The plan for a municipality - adding a twelfth element to the requirements for a municipal plan, specifically to include a flood resilience plan.

(a) A plan for a municipality . . . shall include the following . . .:

(12) (A) A flood resilience plan that:

(i) identifies flood hazard and fluvial erosion hazard areas, based on river corridor maps provided by the Secretary of Natural Resources pursuant to 10 V.S.A. § 1428(a) or maps recommended by the Secretary, and designates those areas to be protected, including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property; and

(ii) recommends policies and strategies to protect the areas identified and designated under subdivision (12) (A) (i) of this subsection and to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.

(12) (B) A flood resilience plan may reference an existing local hazard mitigation plan approved under 44 C.F.R. § 201.6.

Fluvial Erosion

By statutory definition, “fluvial erosion” means the erosion or scouring of riverbeds and banks during high flow conditions of a river. Most of the flooding damage experienced in Vermont is from the power of moving water and the sudden destruction of under-sized culverts and erosion of stream banks supporting roads and buildings. Providing a river the room it needs to slow the flow, over time can allow it to function as a responsive system and avoid repeated losses to public infrastructure and investments.

Erosion (and deposition) along a stream or river is natural. Sometimes, efforts to stop this process in one place can make it worse in others. Rivers, streams, and their channels are changing constantly in response to the inputs of water, energy, sediment, and debris that pass along them. Every few years a stream fills to bankfull and the shape of the channel responds to this force by cutting deeper into some streambanks and also by depositing sediments in the quiet inside bends. This process is visible as an “S” shaped form that changes position over time.

If the stream cannot spill out of its banks, the power of the trapped water increases and the channel either digs down or cuts out further to the sides. Where the roads and buildings are nearby these adjustments to the channel’s shape can become dramatic and costly.

A river is in geomorphic equilibrium when it is in balance with its water, energy, sediment, and debris. In this condition a river is neither building up sediment in the channel nor losing sediment from its bed. Importantly, a river in equilibrium has not become overly deep and can continue to overflow onto its floodplains. The water that spills onto the floodplain slows down, and the velocity of the water still in the channel does not become excessively powerful.

In trying to protect roads and buildings we need to be sure that the river is able to function as well as possible upstream and downstream. We need functional streams and rivers with room to adjust (River Corridors) and intact floodplains to moderate the impact of high water events.

River Corridors and Floodplains

River Corridors and floodplains are different but frequently closely related. The River Corridor is the area that provides the physical space that the river needs to express its energy and meander without causing it to dig down. In statute it is defined as: *"River corridor" means the land area adjacent to a river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel and that is necessary for the natural maintenance or natural restoration of a dynamic equilibrium condition and for minimization of fluvial erosion hazards, as delineated by the Agency of Natural Resources in accordance with river corridor protection procedures.*

A floodplain is the area where water flowing out over a river bank can spread out and slow down.

River Corridors and floodplains overlap a great deal. One on top of the other there might be 60 – 90% overlap. However, there are areas in the River Corridor that will be eventually shaped by the channel - although they may be currently high and dry - and other areas in the floodplain that will be under water during a large flood, but which the river channel may not need to access to maintain its geomorphic equilibrium.

The extent of a River Corridor is based on calculations including such things as the meander belt of the stream, soils, watershed size and gradient, and channel width. The extent of floodplains is based on calculations including such things as stream peak flow history and frequency.

Regulatory Flood Hazard Areas

There are two types of regulatory flood hazard areas and two sets of official maps that identify and designate those flood hazard areas in Vermont: inundation hazard areas are designated by Federal

Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) and fluvial erosion hazard areas are designated on the VT Agency of Natural Resources (ANR) River Corridor maps.

Inundation Hazard

Towns participating in the National Flood Insurance Program (NFIP) must regulate development in areas designated on the FIRMs that show the floodplain that FEMA has calculated would be covered by water in a 1% chance annual inundation event, also referred to as the “100 year flood” or base flood. This area of inundation is called the Special Flood Hazard Area (SFHA). FIRMs may also show expected base flood elevations (BFEs) and floodways (smaller areas that carry more current). FIRMs are only prepared for larger streams and rivers. The Town of Wilmington has areas of flood risk mapped by FEMA.

Fluvial Erosion Hazard

A significant portion of flood damage in Vermont occurs outside of the FEMA mapped areas along rivers and smaller upland streams, as well as along road drainage systems that fail to convey the amount of water they are receiving. Since FEMA maps are only concerned with inundation, and these other areas are at risk from flash flooding and fluvial erosion, these areas are often not recognized as being flood-prone. Property owners in such areas outside of SFHAs are not required to have flood insurance. Flash flooding in these reaches can be extremely erosive, causing damage to road infrastructure and to topographic features including stream beds and the sides of hills and mountains, also creating landslide risk.

Vermont ANR’s river corridor maps show the area needed to address the fluvial erosion hazards, which may be inside of FEMA-mapped areas, but often extend outside of those areas. River Corridor maps delineate areas where the lateral movement of the river and the associated erosion may be more of the threat than inundation by floodwaters. Elevation or flood proofing alone may not be protective of structures in these areas, as erosion can undermine structures. ANR released statewide river corridor maps in the latter part of 2014. The Town of Wilmington has areas of River Corridor mapped by ANR.

Flood Hazard Area Regulation

Inundation

In order to enable property owners to be eligible for federal flood insurance through the National Flood Insurance Program (NFIP), a municipality must adopt and administer flood hazard area regulations. These can be within local zoning regulations or adopted as a free-standing bylaw. A community’s flood hazard regulations must apply to at least the Special Flood Hazard Areas identified by FEMA. They regulate new structures and place restrictions on other types of activities, such as fill within the floodplain. They specify land, area, and structural requirements to be adhered to within the SFHA. Paradoxically, using the minimum required regulations can *increase* flood risk, as they allow filling in flood zones which can increase flooding downstream.

Erosion

To satisfy the intent of Act 16, to protect citizens, infrastructure, and the environment, as well as to qualify for maximum Emergency Relief Assistance Fund match from the state in the event of a disaster, a town must adopt and administer protection of River Corridors in its flood hazard area regulations. These can be within local zoning regulations or adopted as a free-standing bylaw.

Addressing flood resilience

This plan identifies as flood hazard areas the Special Flood Hazard Areas (SFHAs) shown on the FIRMs and identifies fluvial erosion hazard areas as those shown on the Agency of Natural Resources River Corridor maps. Further, this Plan designates both those identified areas as areas to be protected, including floodplains, river corridors, and land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property. In addition, this plan incorporates by reference the town’s Local Hazard Mitigation Plan approved under 44 C.F.R. § 201.6. Finally, this plan recommends the policies and strategies to protect the designated areas to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments. (See Flood Resilience Goal 12, page 36)

Maps referenced in this section will be posted as available. Some named maps have not yet been provided to the town by the Vermont Agency of Natural Resources.

Additional information is available at <http://floodready.vermont.gov/>.

LAND USE

Existing Land Use

The Town of Wilmington is 25,241.60 acres and its existing land use/land cover was mapped using aerial photographs, orthophotos and GIS data. The Village sits at the crossroad of Routes 9 and 100.

Built Environment

Wilmington Village functions as the center for Town government, public services, and community affairs. The Village is an area of clustered mixed land use containing residential, commercial, professional, institutional, municipal, recreational, and cultural uses. A greater density of dwellings (including multifamily dwellings) is found in Wilmington Village than in outlying lands.

The area around Haystack Mountain is an area of outdoor recreational activity including a ski area, golf course, and tennis courts, a new base lodge, numerous condominiums, and a plan for a five-story, 184,190 square foot, 93-unit hotel and seven villas. Associated secondary development includes dwellings, lodging, restaurants and resort related commercial enterprises. A concentration of condominium dwellings is also located somewhat near the mountain.

Residential land use occupies the outlying areas of the Town, is random in its settlement pattern, and consists of predominantly single-family dwellings. Many home occupations and cottage industries are associated with permanent residences. Vacation homes and camps account for over half of the total housing stock, and although many are concentrated at or near the ski area, others are located along the shores of Lake Raponda, near Lake Whitingham, at Chimney Hill vacation community or dispersed throughout the Town.

Commercial and industrial land use is located in the Village and along Routes 9 and Route 100 approaching the Village as well as the Haystack/HIREHC area. A large concentration of commercial development is located along both sides of Route 100 from the intersection of Higley Hill Road north to the intersection of East Dover Road. A smaller concentration is located along Route 100 near the Twin Valley Elementary School. Scattered commercial developments are also found along Coldbrook Road on the way to Haystack, many of which are now owned by HIREHC. Institutional land uses outside of the Village are the health center on Route 100 South, Twin Valley Elementary School on Route 100 North and the medical facility on Coldbrook Road.

Scenic Vistas

Wilmington is rich in natural resources and scenic vistas. These scenic vistas play an important role supporting the tourism industry, the primary economic resource of the town. Scenic vistas are protected and preserved through land use zoning, conservation easements, and “current use” designations for forestry management/silviculture and agricultural lands.

Commercial wind generation is prohibited on any of the mountain ridges of the town including the ridge between Haystack Mountain and Mt Snow, Mt Olga, and the ridgeline between Wilmington and Marlboro. Solar arrays are managed to the extent allowed by the law and are prohibited in scenic areas to the extent allowed by the law. Wilmington seeks to introduce solar technology in a fashion that does not impact open spaces, landscapes and vistas, and with consideration of the fire safety issues created by a

roof-top electric installation impeding fire-fighting ability. An example of this would be solar installations out of view of the public eye, in commercial complexes or on non-residential building or other structure rooftops that are not habitable space.

Natural areas are preserved through conservation zoning. Development must preserve and protect scenic vistas.

Wilmington’s long term success will rely heavily on the preservation of its natural scenic beauty to preserve the town’s value as a desirable destination and second home ownership location.

Open Lands

Wilmington’s heritage in the mid-1800 was one of sheep farming and lumbering. The deforestation of the area resulted in what some estimate to be up to 80% open lands. In the mid-1800 there was a movement to preserve and re-forest some of the cleared lands. This has resulted in a well balanced mix of forested mountains and a wealth of cleared open lands in the plains. With a decrease in small farms, active agricultural land use comprises only a small percentage of the acreage of Wilmington lands. Open meadows are maintained by mowing throughout the Town. Forest-related land use is significant and includes private, non-industrial lands which provide for wildlife, recreation, and forest products. Private utility lands are extensive and comprise approximately 3,836 acres that includes Lake Whitingham. The mountain vistas with the open fields of grass and flowers has created a much sought after tourist destination which is the economic backbone of the town. The presence of the quintessential “Vermont Village” with our historic downtown, surrounded by fields and forested mountains has great economic value for the town. Preserving these features is a key economic interest for the town.

Wilmington seeks to preserve and expand on open lands, consistent with the town’s heritage and in support of preserving and growing the economic base dependent upon these open lands and forested mountains.

Conservation

Lands in public ownership consist of the Green Mountain National Forest, Molly Stark State Park, Wilmington School Forest, and Glebe land. Most of the privately-owned power company land around Lake Whitingham is protected under a conservation easement held by the Vermont Land Trust. Much of the remaining land provides important recreational and scenic resource in the Town, as it is commonly used for hunting and fishing, cross country skiing, snowmobiling, hiking, snow shoeing and other outdoor activities.

While the mountainous area separating the towns of Marlboro and Wilmington provides scenic vistas to private land owners who enjoy owning property in those areas, little of the land is undeveloped or town owned as prospective conservation land. The Planning Commission has reviewed ownership along the Marlboro/Wilmington border and finds only one property that may be a potential Conservation zoned area.

Zoning

In 1968 Wilmington adopted its first zoning regulations. The Wilmington Zoning Regulations have undergone significant revision in the past few years, with a complete reorganization of the zoning bylaws and re-adoption in August 2016.

Land Use Plan

The land use plan's purpose is to guide growth and development that conforms to the goals and policies outlined in this Town Plan. Among the factors considered in preparing the land use plan were the following: existing sewer and water service, existing publicly owned lands, existing rural settlement, current commercial and industrial land use, agricultural, forestry, and wildlife resource values, proximity to public highways, and the need for economic vitality. Of particular note:

1. It is important to assure that existing and future town residents and the workforce are served by a broad range of housing opportunities.
2. Wilmington Village functions as the center of Town government, public services, community affairs, and many small businesses. The Village is important to the local economy and needs to be enhanced and revitalized.
3. The areas of Wilmington with the highest wildlife habitat suitability are located along the town's western and the southeastern corners. These areas also provide the best opportunity of connecting with neighboring towns existing wildlife corridors. (see the Natural Resources map)
4. Although agriculture has become less extensive, the agricultural lands are an important resource that serves many functions including: providing local seasonal produce and planting materials; serving as an educational resource; and contributing to the rural character of the Town.
5. The trees and wooded hills, which dominate the landscape and provide contrast with open fields and pasture land, also serve as an important visual resource for the Town.
6. Surface waters have natural, scenic, and recreational value. Their value can be easily diminished or destroyed by unwise development. In so far as practical, surface waters and shorelines should be retained and maintained in their natural state. (see the Natural Resources map)
7. In the Source Protection Areas land uses should be limited to those which pose no threat to the quality of the water supply (see Water Resources Map).
8. Haystack Mountain, the Green Mountain ridgeline and wooded hillsides provide a dramatic scenic impact from many locations in Wilmington. The daytime views and night-sky views should be protected against large structural development and over-lighting. All vistas greater than 500 feet over the base elevation of the area should receive special consideration.
9. Consideration should be given to the values of the Scenic Roads that were identified as having the most scenic value to residents and visitors.
10. Preservation and enhancement of existing community facilities and services. (see the Community Facilities map at the end of the document)
11. Consideration should be given to the importance of public recreation for the community and as an economic development tool.
12. Encourage land use patterns that will enhance energy conservation
13. Encourage economic vitality
14. Prohibit all Commercial wind generation in all areas of the town, including specifically the ridge between Mt Haystack and Mt Snow, Mt Olga and the ridgeline separating the town of Marlboro and Wilmington.
15. Promote solar in areas not visible to the public (such as on roof tops of commercial and non-residential operations) and never in our pastoral fields of scenic beauty. Protect public safety

by discouraging roof-top installations in inhabited structures, in that electric solar installation on a roof-top inhibits the ability to fight a fire on those structures.

Based on those considerations the following land use classification was developed and shown on the enclosed land use plan map:

- Conservation
- Rural Residential
- Residential
- Resort - Residential
- Village
- Commercial/Residential
- Resort – Commercial/Residential

A brief explanation of purposes, description, and suggested land use guidelines for each land use district follows.

Planning Considerations for Natural Resources

Special planning and design standards should be considered and reflected in zoning and potential subdivision regulations and considered by landowners in their own land planning. The following areas have been mapped on the natural resources map:

1. Areas above 2,500 feet: As part of the Green Mountain range, higher elevations are vulnerable to serious problems caused by increased rainfall on steep slopes, shallow soils and disturbed ground cover. It is recommended that these areas be protected by careful review of any development proposals.
2. Surface waters (rivers, streams, lakes, ponds, wetlands): These resources have natural, scenic, and recreational value. Their value can be easily diminished or destroyed by unwise development. In so far as practical, surface waters and shorelines should be retained and maintained in their natural state.
3. Source Protection Areas (for water supplies): These areas are mapped by the Vermont Agency of Natural Resources²⁰ in order to delineate the minimum area needed to protect a public water supply. Land uses should be limited to those which pose no threat to the quality of the water supply.
4. Flood hazard areas: These areas are identified so that development in flood hazard areas does not impede the flow of flood waters or endanger the health, safety, and welfare of the public.
5. Deer wintering areas: Low-lying softwood stands with southern exposures provide critical shelter from deep snow and cold temperatures. Road and housing construction and other forms of similar development reduce both the quantity and quality of deer wintering areas.
http://www.vtfishandwildlife.com/cwp_elem_spec_dwa.cfm
6. Rare and threatened plant and animal locations: Sites have been designated and mapped by the Vermont Agency of Natural Resources and require protection from the impacts of development.
7. Scenic areas - Haystack Mountain and the ridgeline which forms the spine of the Green Mountain National Forest are prominent landforms. They provide a dramatic scenic impact from many viewpoints in Wilmington.
8. Scenic roads - These roads were identified by the Wilmington Planning Commission as having the most scenic value to residents and visitors. Consideration should be given to these scenic values.

²⁰ <http://www.anr.state.vt.us/DEC/watersup/swapp.htm>

Legally Enforceable Standards

The provisions of this Plan are considered “Legally Enforceable Standards to received consideration under Act 250 - 10 V.S.A. § 6000, *et seq.* and given “due consideration” or “substantial deference”, as applicable, by the Public Service Board public utility power generation reviews, in accordance with § 248 (30 V.S.A. § 248).

Development should not diminish the scenic and ecological values associated with these areas. To this end, new commercial land uses and large scale and/or moderate to high-density development, including energy generation facilities of any size, should be prohibited in the Conservation district and on other land characterized by one or more important natural features (e.g., critical wildlife habitat, wetlands, riparian buffers, steep slopes and ridgelines). Commercial wind energy generation facilities of any size are prohibited in the Conservation district and on other land characterized by one or more of the listed natural features.

Conservation District

Purpose: To protect the undeveloped nature of those forest lands that provide scenic and recreational opportunities, public water supply, watershed protection, flood storage, fish and wildlife habitat, and timber production.

Description: Lands in this district are publicly-owned lands, including Green Mountain National Forest, Town of Wilmington land, Molly Stark State Park, and private utility lands. Lands are characterized by extensive forests with few roads and dwellings. The hope of including lands on the mountainous Marlboro/Wilmington border will be pursued as opportunity allows.

These lands are important as upland watershed and aquifer recharge areas, as essential habitat for fish and wildlife, and as an outdoor recreational resource. Lake Whitingham is a 2,000+ acre reservoir created for hydroelectric power generation, providing other valuable assets including recreation, fish and wildlife habitat, and flood storage. Ultimate land use management of the lands in this district is under the auspices of these public and private entities.

Conservation areas should be used for outdoor recreation, education, commercial forestry, and public water supply. Any structures built should be limited to those in direct support of these activities.

Residential District

Purpose: To provide areas for dwellings and other small-scale rural uses including home occupations with consideration being given to historic settlement patterns, aesthetics, natural resource protection, and economic vitality.

Description: Lands in this district are already committed to residential development or appear to be capable of accommodating a significant proportion of the expected growth of the Town. Residential areas should be used to accommodate a major proportion of the growth of year-round residences and vacation homes and associated uses. Commercial forestry, agriculture, earth and mineral extraction, and recreational uses that utilize appropriate management practices as established by the Town are also typical for this District.

Resort Residential District

Purpose: Similar to the Residential District, but for that area designated for resort and recreational development.

Description: Lands in this district are committed to residential development as defined above, but are specifically focused on areas designated for resort or recreational development.

Village District

Purpose: To maintain Wilmington Village as an area of clustered mixed land use that is in scale with the historic, existing, and desired character of the Village, and which serves residents and visitors to Wilmington.

Description: Lands in this district include lands that are suited for village development and the Wilmington Village Historic District (a National Register designation) for which design control regulations were adopted in 1984. In October 2009, the Select Board repealed the previous adopted Design Control District and adopted a Historic Review District for the Village of Wilmington. Appropriate village uses include residential and commercial uses, public buildings and public facilities, and associated services. Small, light industrial uses may be accommodated as well, but they should be carefully planned to minimize undesirable impact on village character. The goal is to encourage a compact pattern of development in the Village to be developed at the existing village scale

Commercial/Residential District

Purpose: The purpose of this district is to limit sprawl and roadside strip development while promoting open space preservation and historic village settlement patterns by designating areas within the Town for certain kinds of commercial and residential mixed-use growth. These types of developments are encouraged to meet Planned Unit Development requirements, as well as consider physical and environmental limitations, such as flood hazard areas, wildlife habitat, steep slopes, and traffic volume and flow.

Description: Allow for commercial and residential mixed-use development in nodes throughout the Commercial/Residential Development areas. Where possible these areas should correspond to parcel boundaries and other physical criteria. Zoning standards for lot size, parking, access and circulation, open space protection, and design of structures will need to be developed that are specific to the particular situations in each of the Commercial/Residential Development areas.

Resort – Commercial/Residential

Purpose: Similar to the Commercial/Residential District, but for that area designated for resort and recreational development.

Description: Lands in this district are committed to Commercial and Residential mixed use development as defined above, but are specifically focused on areas designated for resort or recreational development.

Special Resource Areas

The Special Resource Areas map highlights areas of High Natural Resource Value, Productive Rural Lands, and Important Wildlife Crossings. These areas should be considered by landowners in their own

planning and will be used by the Development Review Board to determine if special protections or considerations are warranted in planned land development.

High Natural Resource Value: The High Natural Resource Value Areas are comprised of land that links larger patches of habitat within a landscape, allowing the movement migration and dispersal of animals and plants in a larger region. Critical corridor areas highlight those locations along roads or between large blocks of probable contiguous habitat that have been identified by the Vermont Wildlife Habitat Suitability analysis or as probable linkage habitat²¹. Regardless of the land use district, new uses that are proposed must respect the sensitive nature of the system and must be designed to enhance the values of the area.

Productive Rural Lands: Productive Rural Lands are comprised of Wilmington’s working lands and consists of farm, field, forest lands, and high elevation that preserve the rural character of the area. Many of these working lands also provide a scenic backdrop for the community and also serve to maintain contiguous tracts of open space. Rural Lands should continue to be used for agriculture, forestry, low-intensity recreation and open space with a shift from large dairy farms toward small diverse agriculture uses such as small vineyards that have emerged in the town. Wilmington Natural Resource, Special Resources, and Productive Rural Lands are valuable assets and need protection. Development should be carefully planned to ensure that it does not prevent or infringe upon existing or potentially productive working lands.

Important Wildlife Crossing: In Wilmington bear are found most commonly on the forested mountains on the west side of the Town. During late spring and summer, bear are known to feed on lower elevation vegetation and in wetlands. During this time period, according to the Vermont Agency of Natural Resources, there is an active bear crossing on Cold Brook Road where they come down off Haystack to wetlands along Cold Brook. Any uses proposed in this area must respect the sensitive nature of this crossing and be designed to enhance the natural resource value.

Planned Addition of Rural Residential Districts

On review of zoning of adjoining towns, it was clear Wilmington is inconsistent with adjoining towns in that Residential and Commercial/Residential Districts are all 1 acre minimum lots. Our neighboring towns of Whitingham, Dover, and Marlboro each provide for increased acreage requirements in their rural areas;

Dover – Productive Residential 5 acre minimum

Whitingham – Rural Residential 5 acre minimum

Marlboro – Rural Residential 5 acre minimum.

The Planning Commission believes that some rural areas of the town would benefit from larger acreage. The Planning Commission has developed Rural Residential areas of a proposed 3-5 acre minimum.

²¹ This includes areas in Wilmington and adjacent towns that had medium to high probability of wildlife habitat.

LAND USE CONSISTENCY WITH ADJOINING TOWNS

Wilmington has a single point of corner contact to Halifax, and Somerset. While Somerset has no Land Use Plan, Halifax has a little or no conservancy priority for their touch points, similar to Wilmington.

Wilmington borders the towns of Whitingham, Marlboro, Dover, Readsboro and Searsburg.

The town of Searsburg has no land use plan for comparison; however a vast amount of the bordering lands are national forest, effectively treated as conservation lands by both Wilmington and Searsburg.

Land Use Plans for the bordering towns of Whitingham, Readsboro and Dover are highly consistent in land use plans across their borders. Conservation areas across town lines are contiguous, preserving large tracks of land for natural areas and preservation of wildlife corridors and habitats. Developed areas, with little or no conservation priority reflect a consistent approach to land use for residential and commercial development across town lines. Land use plans are consistent and aligned between these towns.

Land Use Plans for the border town of Marlboro reflect an inconsistent approach to land planning between our towns in the hill lands on our mutual border. Marlboro plan is to place nearly all of the border lands into a Conservation District, whereas Wilmington reflects no conservation priority along this border. Marlboro planners, when trying to move these lands into a Conservation District, found that current land use is inconsistent with this goal. In speaking with current landowners they found that few were willing to place their lands into a Conservation zoned district. Marlboro actual zoning reflects little Conservation District zoned lands on the Marlboro border.

Wilmington has assessed the lands bordering Marlboro and found too, that there are few opportunities to bring these lands under Conservation District protection. Current landowners with their current uses have pre-determined how these lands are to be used. However, there remains a viable action for this and other areas that will help to conserve land, even in moderately developed areas. Wilmington plans to add a Rural Residential Use with increase minimum lot sizes of a proposed 3-5 acres. While not quite as aggressive as planning to place these lands in a Conservation District, this will help to reduce future densities, preserve the rural characteristics of this area and support rural enterprises such as farming. Where opportunity allows, lands will be placed in Conservation.

Current land use protections of wildlife habitats, corridors, and natural resources will serve to protect all of our lands to the extent possible. Zoning regulations have eliminated all small lots outside of the Village. The lower density zoning will help to conserve these lands.

What's Next for the Planning Commission Land Use Actions?

Near term Land Use planning for the Planning Commission includes:

1. Updating of Flood Resilience regulations
2. Develop Flood Resilience Planning
3. Expand the Design Review District applying to the Designated Downtown
4. Explore placing East Main St in an expanded Design Review District
5. Adopt a Rural Residential District with a 3-5 acre minimum
6. Review zoning supporting and managing rural enterprises, such as farming and farm services not addressed in state agricultural regulations; i.e., services unrelated to products produced on the farm, room and board, providing farm experiences.
7. Looking again at subdivision regulations with a goal of increasing the area threshold that triggers Act 250 jurisdiction from 1 acre to 10 acres for Act 250 review (Act 250 currently applies to any commercial development of over 1 acre in Wilmington). The exemption of additional properties from Act 250 review will ease review burdens on some property owners, but will substantially increase the burden on the town to review and assess impacts upon sensitive natural resources and transportation management currently provided by state resources. Act 250 addresses issues requiring extensive expertise and caution.

MAP AVAILABILITY

A portfolio of maps is available for examination at the Wilmington Town Offices. These maps were prepared by the staff of Windham Regional Commission under direction of the Wilmington Planning Commission. Smaller scale maps are attached as part of this Plan.

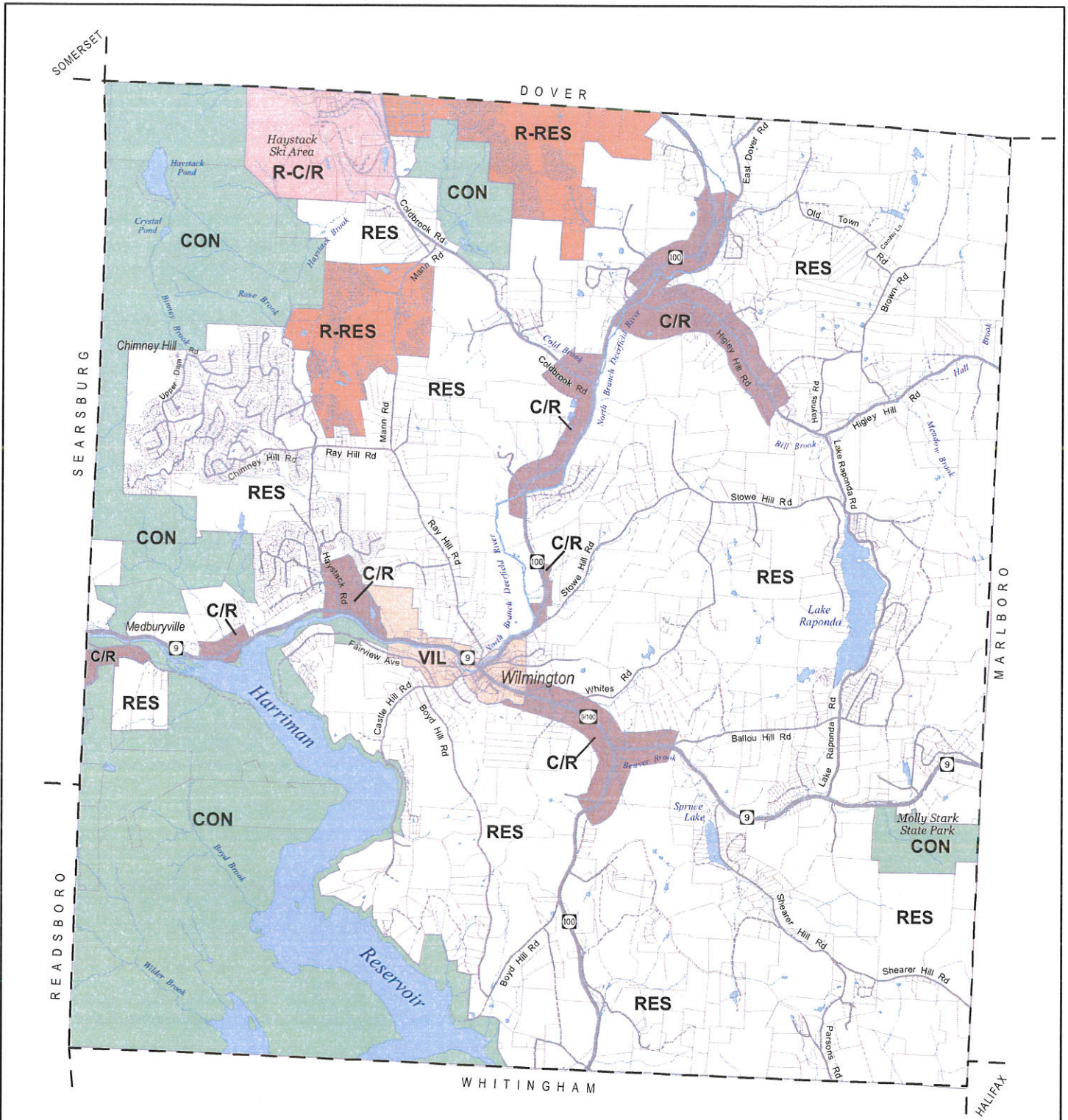
The maps were prepared to show where and how Town Plan policies should influence future land use and development in Wilmington. Together with Town Plan policies, these maps will be used by the Planning Commission as a guide for appropriate bylaws and other measures necessary to implement this Plan.

The Planning Commission recognizes that these maps may be subject to inaccuracy and misleading interpretations when applied to small parcels of land. If this is kept in mind by landowners, these maps will be useful when making preliminary decisions about the use of land, and its potential for development. These maps, however, should not be depended upon as the only basis for investment and development decisions. Specific situations may call for a more detailed site survey and/or studies. The Planning Commission and the Windham Regional Commission disclaim any liability.

MAPS

The following maps are attached to aide in implementation of the Town Plan:

- Existing Zoning Districts
- Existing Land Use by Parcel, 2016
- Future Land Use
- Community Facilities and Utilities
- Natural Resources
- Special Resource Areas
- Transportation System
- Water Resources

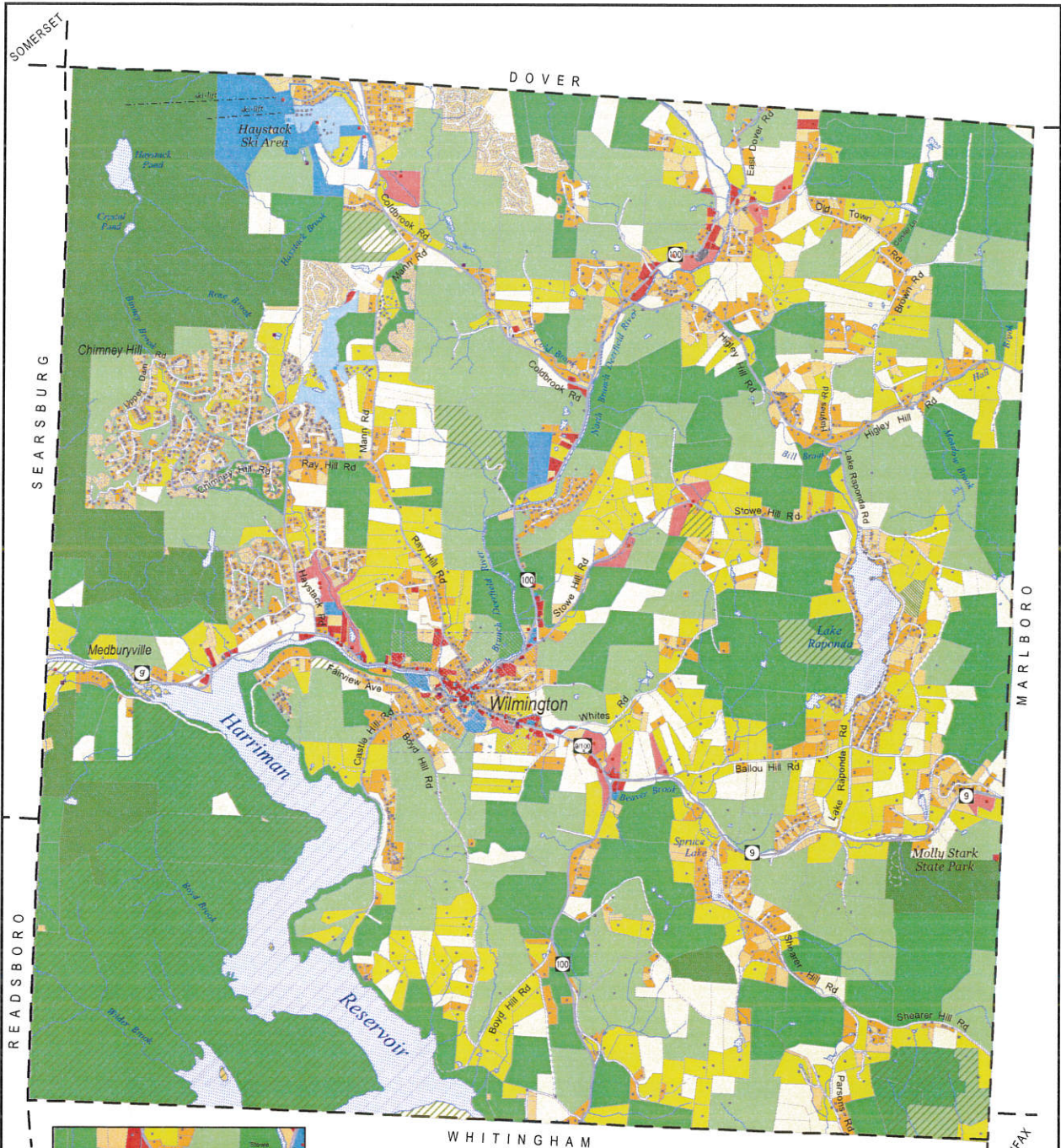


Town of Wilmington, Vt. Zoning Districts

adopted 7/20/2016

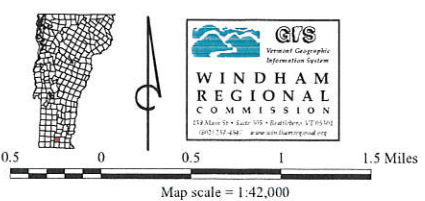


- R-C/R Resort-Commercial/Residential
- R-RES Resort-Residential
- C/R Commercial/Residential
- VIL Village
- RES Residential
- CON Conservation



Wilmington Village

Existing Land Use by Parcel, 2016 Town of Wilmington, Vt.



Building Use:

- Commercial
- Industrial
- Public Institutional
- Residential

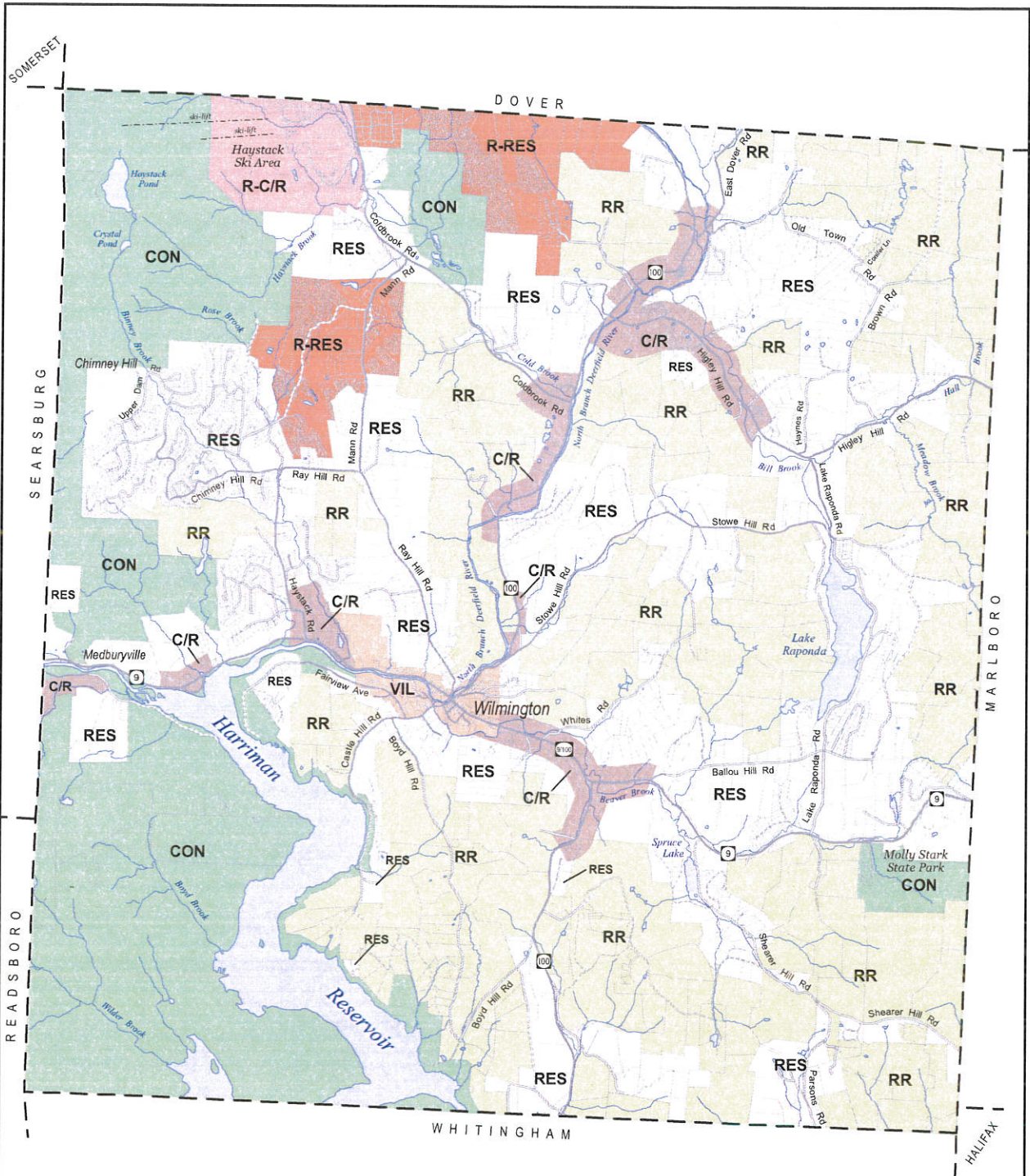
Data sources:
 - Parcel lines are from GIS data developed by Cartographic Technologies, Inc. (CTI) Brattleboro, Vt. from Wilmington's 1:5000-scale parcel maps. The data are current to 2015.
 - Building locations are from the Vermont Enhanced 9-1-1 program and are current to 2016.
 - Land use categories and densities were developed by WRC from the Wilmington grand list, E911 data, and other sources.

Parcel status:

- ▨ Development restriction, private land with conservation easement **
 - ▨ Public land managed for recreation, conservation, and/or open space
- ** - not all parcels with other development restrictions mapped

Parcel use:

	size of parcel - small	→	large	small parcel size - ~ 5 acres	
	intensity of use - high	→	low	large parcel size - > 25 acres	
commercial recreation	[Color swatches]				
public services/cultural	[Color swatches]				
industrial/utility	[Color swatches]				
commercial (high density/small parcel)	[Color swatches]				
commercial (low density large parcel)	[Color swatches]				
residential (higher density)	[Color swatches]				
rural (very low density residential)	[Color swatches]				
vacant residential	[Color swatches]				
open land	[Color swatches]				
	size of parcel - small	→	large		
	intensity of use - high	→	low		



Future Land Use
Town of Wilmington, Vt.
 January 2017

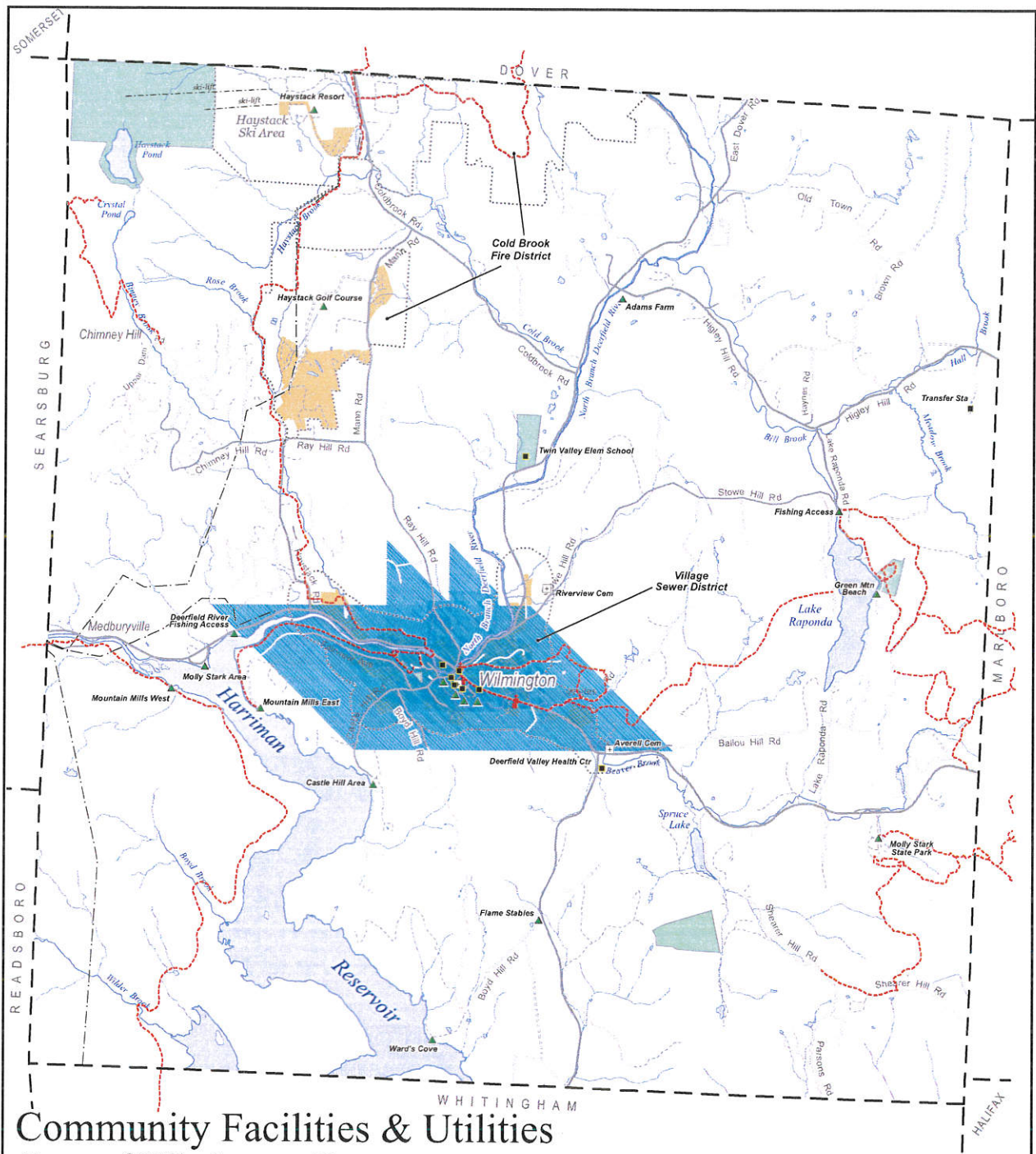
- Commercial/Residential (C/R)
- Resort-Commercial/Residential (R-C/R)
- Resort-Residential (R-RES)
- Conservation (CON)
- Rural Residential (RR)
- Residential (RES)
- Village (VIL)

Data sources:
 - Parcel lines are from GIS data developed by Cartographic Technologies, Inc. (CTI) Brattleboro, Vt. from Wilmington's 1:5000-scale parcel maps. The data are current to 2015.
 - Future land use district boundaries were delineated by the Wilmington Planning Commission.

The inset map shows the state of Vermont with a grid overlay, highlighting the location of the Town of Wilmington in the western part of the state. Below the inset map is a north arrow and a scale bar indicating distances of 0.5, 0, 0.5, 1, and 1.5 miles.



Stream
 River or pond



Community Facilities & Utilities

Town of Wilmington, Vt.

January 2017

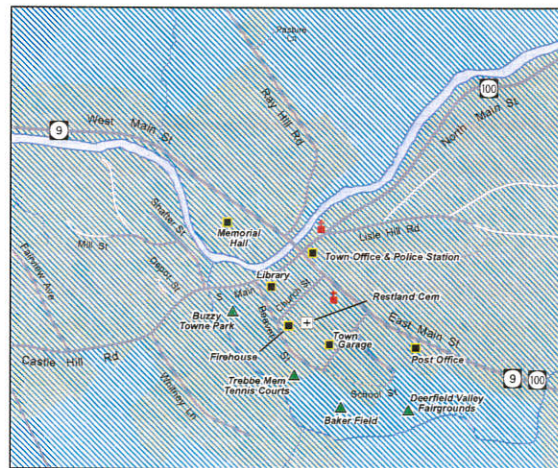
Data sources:

- Wilmington village sewer and water service area boundaries were developed with the assistance of staff from the Wilmington Town Office in 2003. Parcel data were used as a reference to for the service area boundary.
- Wilmington village sewer district boundary from the Town of Wilmington, 2010.
- Cold Brook Fire District boundary and sewer service area was developed from parcel data, Wilmington tax maps, and information from Fire District employees.
- Community facilities, cemeteries, churches, and recreation sites were identified by the Wilmington Planning Commission. Locations were determined by WRC using 1:5000 base GIS data, 1:5000 orthophoto, and E911 data.
- Two-toned conservation open space parcels were extracted from 2009 parcel data created by CTI.
- Trails data are from WRC data, and from Jason Salzman, Wilmington Trails Committee, updated in 2016 by WRC.
- Electric transmission lines are taken from VGIS ELTRN data layer.

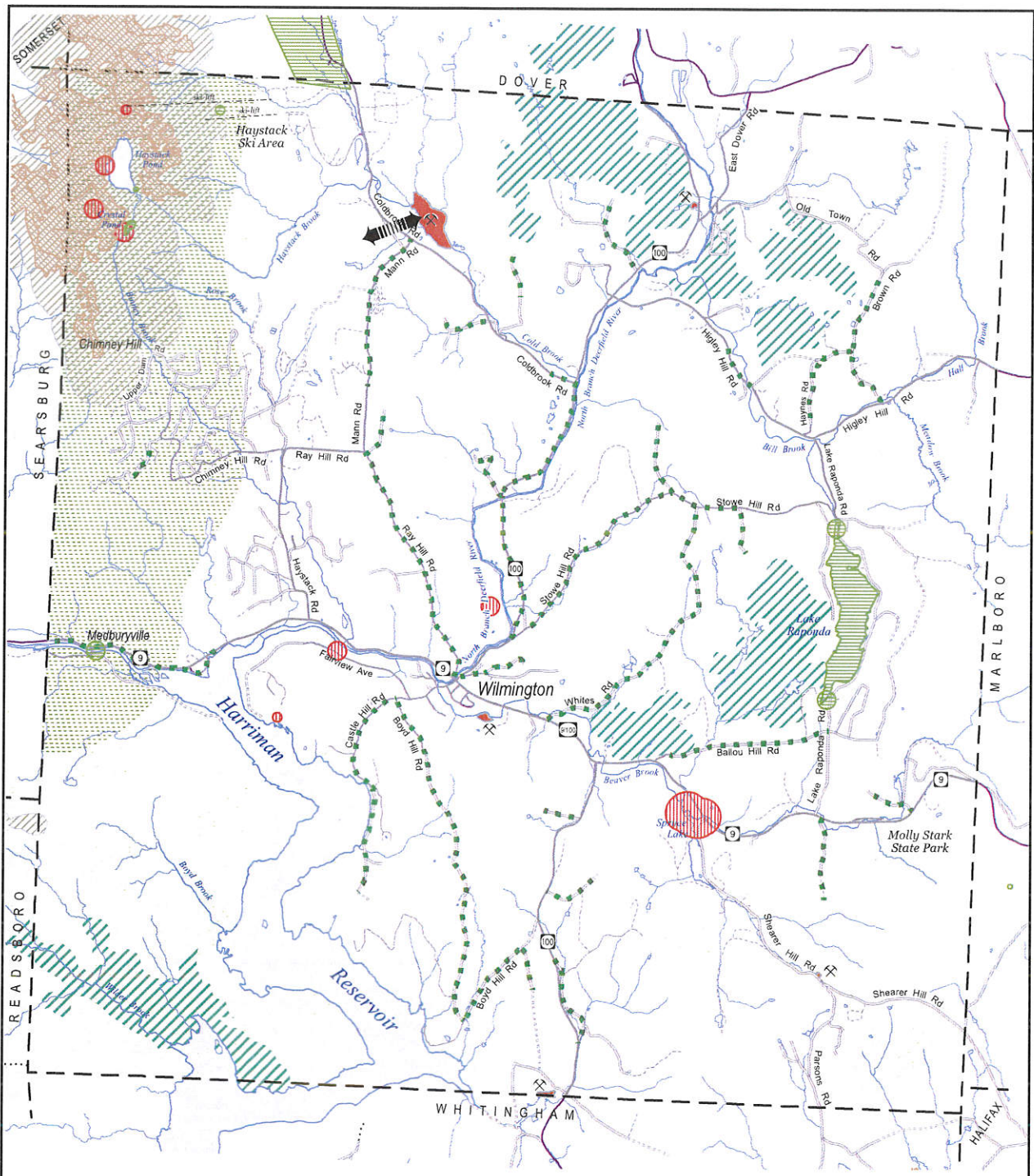
- Community facility
- ▲ Recreation site
- ⊕ Cemetery
- ⊕ Church
- ⋯ Public walking/skiing trail
- Electric transmission line
- Sewer service area
- Town-owned conservation/open space
- Water service area (village)
- ⋯ Sewer districts (Village or Cold Brook Fire District)



0.5 0 0.5 1 1.5 Miles
Map scale = 1:42,000



500 0 500 1,000 1,500 Feet
Inset scale = 1:10,000



Natural Resources

Town of Wilmington, Vt.

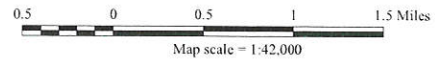
January 2017

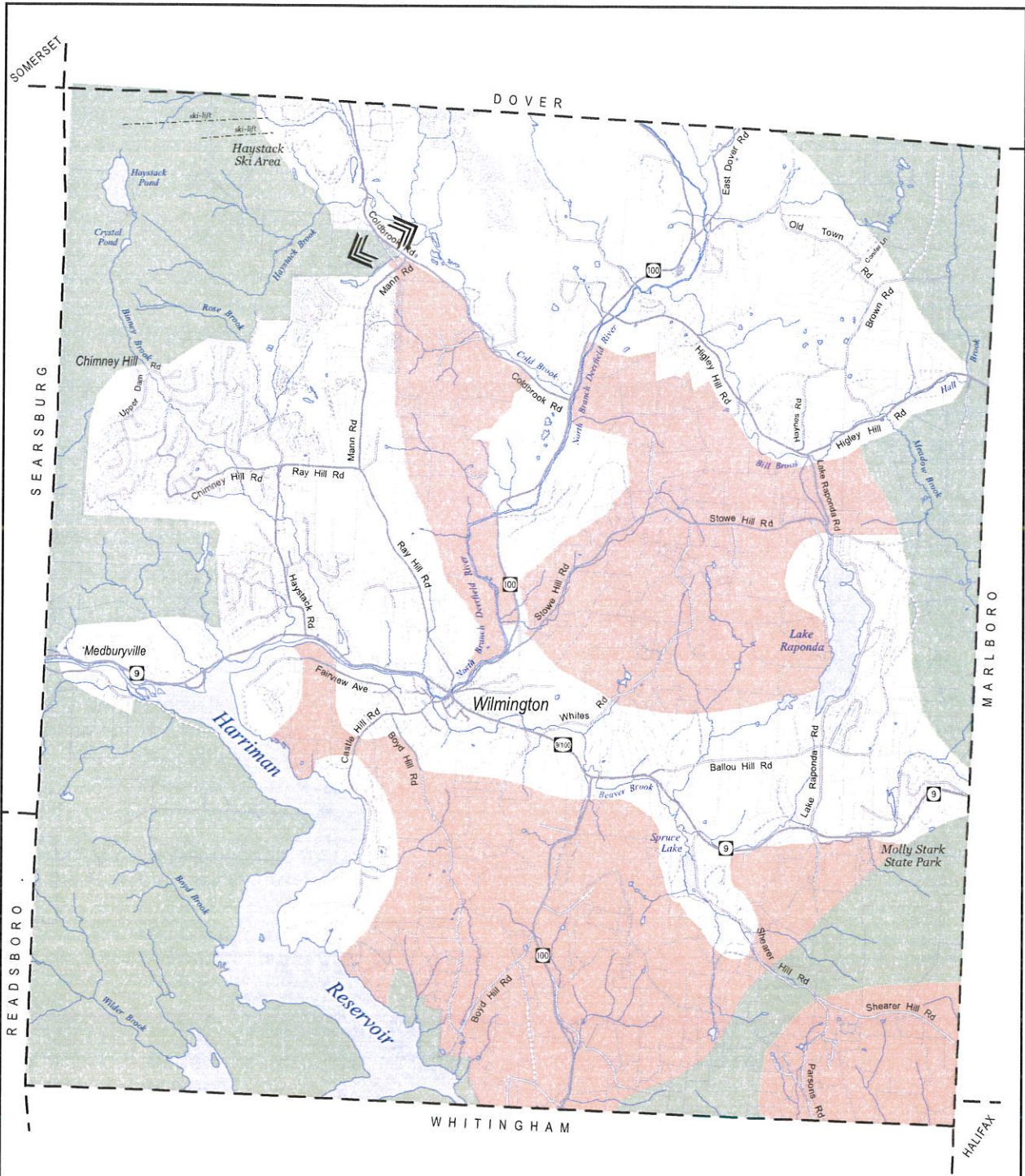


- Rare or uncommon animal
- State threatened, rare, or uncommon plant
- Significant natural community
- Scenic road
- Gravel pit (active and inactive)
- Deer Wintering Area
- Lands above 2500 feet
- Scenic area
- Public or conserved land

Data sources:

- Natural Heritage data are from VT Dept. of Fish and Wildlife, Nongame and Natural Heritage Program's Natural Heritage Inventory Database. This includes data on Rare, Threatened and Endangered Species and Significant Natural Communities database (VGIS layer RITENATCOM), and on uncommon species and other features (VGIS layer UNCOMSPOF), 2015.
- Scenic roads and areas were identified by the Wilmington Planning Commission.
- Gravel pits were identified by the Wilmington Planning Commission and located by WRC using orthophotos.
- Deer wintering areas are from the VGIS data layer DEERWN. Source information is from the VT Fish and Wildlife Dept. (VFWD), and dates back to the 1970's. Original data includes lines drawn on state highway maps, topographic maps, overlays to 1977 infrared photos, written material, and verbal information from VFWD biologists. The data have been updated in selected areas only in 2006, 2008, and 2010.
- Lands over 2500 feet in elevation were digitized by VT ANR from 1:24000 USGS topographic maps. Note: all waters above 2500 feet are by default classified as Class A(I) waters.
- Public and conservation lands data are from the Vermont Conservation Lands Database developed by UVM Spatial Analysis Laboratory and WRC. Boundaries were extracted by WRC from Wilmington's digital parcel data.





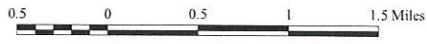
Special Resource Areas Town of Wilmington, Vt.

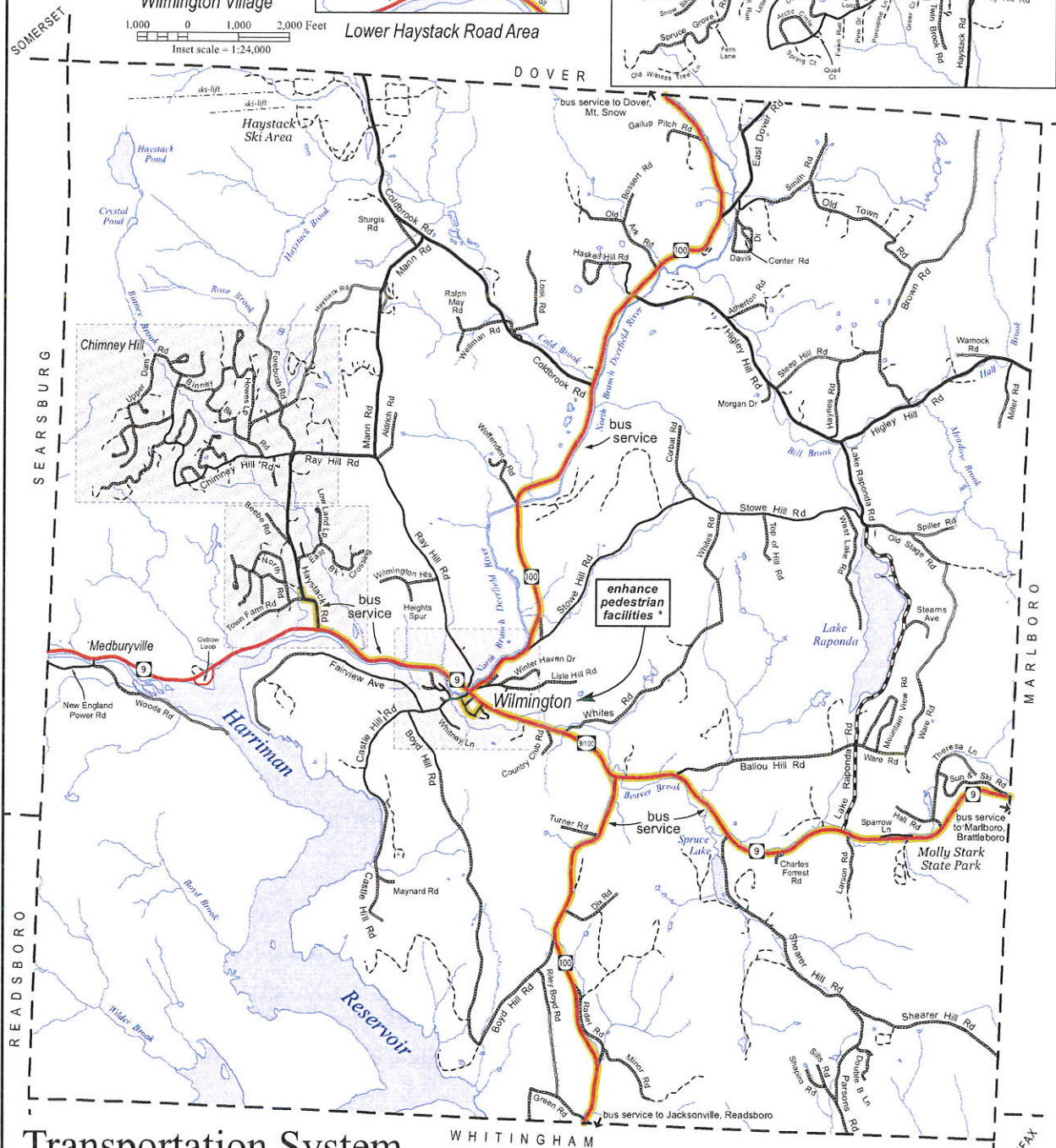
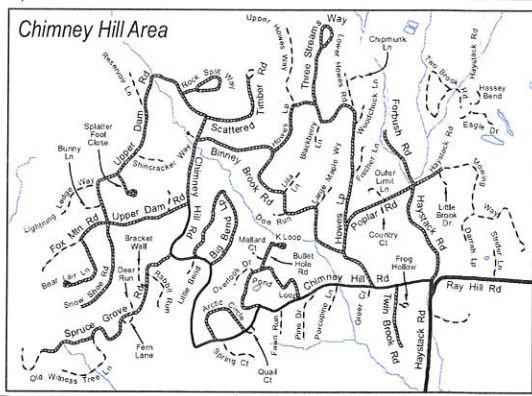
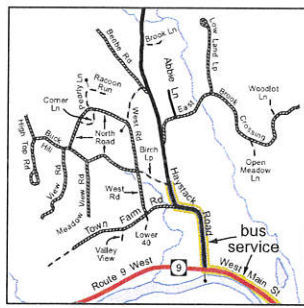
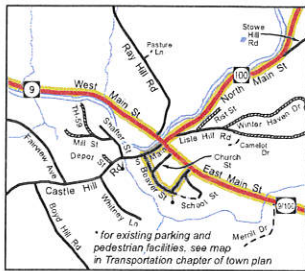
January 2017



- High Natural Resource Value
- Productive Rural Lands
- Important Wildlife Crossing
(not all are mapped)
- Stream
- River or pond

Data sources:
 - Parcel lines are from GIS data developed by Cartographic Technologies, Inc. (CTI) Brattleboro, Vt. from Wilmington's 1:5000-scale parcel maps. The data are current to 2015.
 - Future land use district boundaries were delineated by the Wilmington Planning Commission.





Transportation System

Town of Wilmington, Vt.

January 2017

* for existing parking and pedestrian facilities in the village, see map in Transportation chapter of town plan

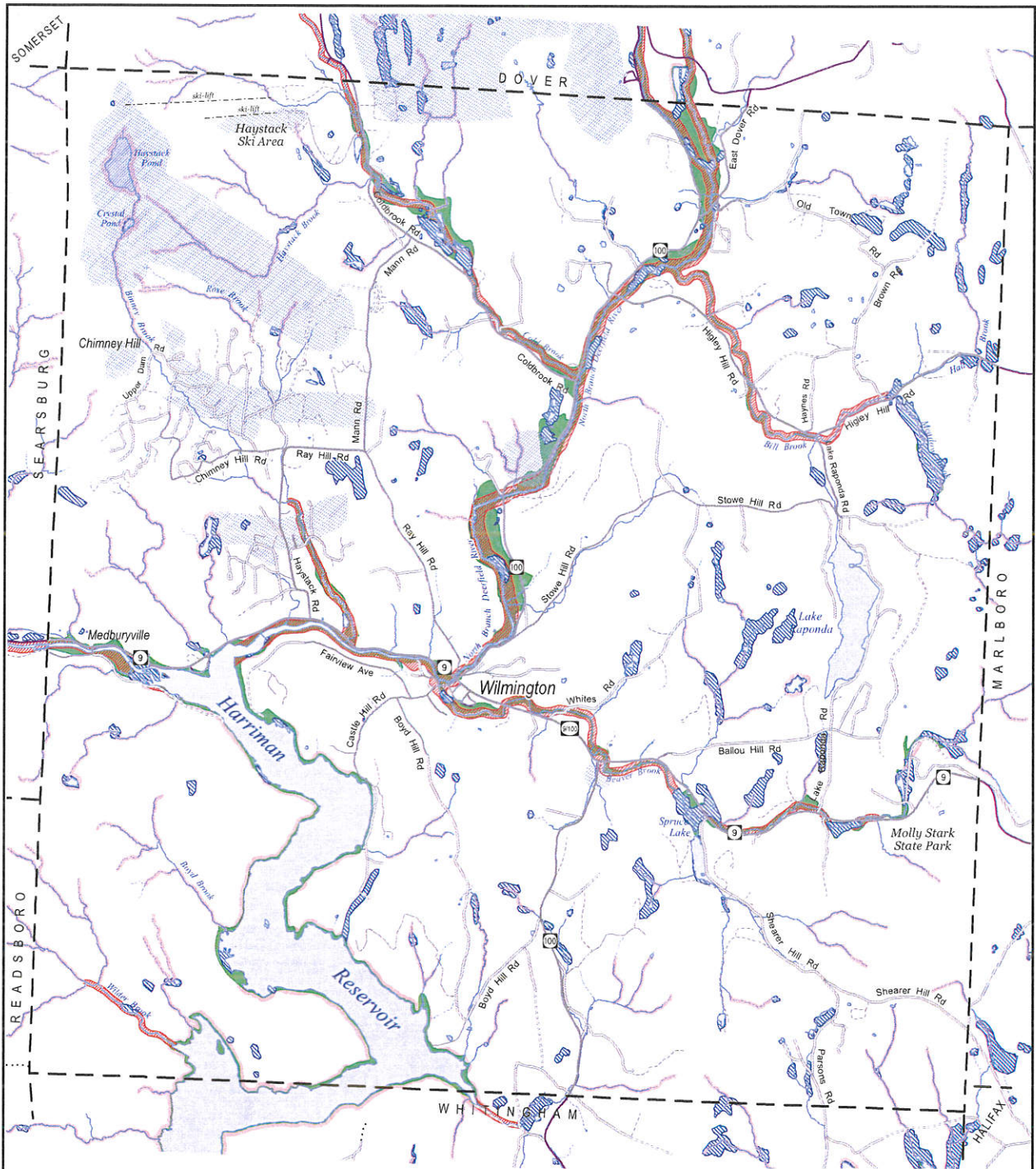
WINDHAM REGIONAL COMMISSION
111 Main St., Suite 200, Ferrisburgh, VT 05743
802.437.4947 www.windhamregional.com

Map scale = 1:42,000

- Federal or state highway
- Class 2 town highway - paved
- Class 3 town highway - paved
- Class 3 town highway - unpaved
- Class 3 town highway - unpaved
- Class 4 town highway (unpaved)
- Private road/drive
- Impassable road
- Symbol denotes change in road name
- Bus service - route of The Moover (Deerfield Valley Transit Association)
- Stream
- River or pond

Data sources:

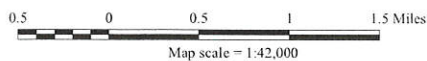
- Highway data are from Vt. Agency of Transportation sources (VGIS data layer RDSrannan). Data were corrected and updated by Windham Regional Commission in 2006, 2009, 2012, and 2015 using information provided by the Town of Wilmington, data from Vermont's Enhanced 911 Board, and Vermont digital orthophotos.
- The route of the Moover (bus service of the Deerfield Valley Transit Authority) is from DVTA information.
- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWrannan). The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infrared aerial photography and other ancillary data sources.



Water Resources

Town of Wilmington, Vt.

January 2017



- Source Protection Area (ground and surface)
- Perennial stream
- Intermittent stream
- Wetland
- River corridor *
- Special Flood Hazard Area
- River, lake, or pond
- Undeveloped stream > 1/4 mile
- Undeveloped shoreland > 1/4 mile

Data sources:

- Source protection areas include surface water and well head protection areas. Locations are from VT ANR Water Supply Division digital data. These data are current to 2011.
- The wetlands shown are those included in the Vermont Significant Wetlands Inventory (VGIS data layer VSWI).
- Lands over 2500 feet in elevation were digitized by VT ANR from 1:25000 USGS topographic maps. Note: all waters above 2500 feet are by default classified as Class A(1) waters.
- Special Flood Hazard Area data boundaries are from FEMA (Federal Emergency Management Agency) D-FIRM (Digital Flood Insurance Rate Map) data created on July 27, 2007.
- Statewide River Corridors are from VT ANR Rivers Program 2015 data (VGIS data layer RIVERCORRIDORS).
- Undeveloped streams and shorelands were determined by WRC using road data and E911 structures data. The portions shown are at least 1/4 mile long and at least 250 feet from mapped roads and buildings.

* Official source of River Corridor data is tinyurl.com/floodreadyatlas. Where river corridors are not mapped, the corridor is taken to be the area within 50 feet of a perennial stream.