



CHITTENDEN COUNTY RPC

Communities Planning Together

Planning Advisory Committee

Wednesday, January 11, 2017

2:30pm to 4:30pm

CCRPC Main Conference Room, 110 West Canal Street, Winooski

Agenda

- 2:30 Welcome and Introductions, Joss Besse**
- 2:35 Approval of November 9, 2016 Minutes***
- 2:50 Bike Parking Best Practices & Bylaw Language, Bryan Davis**
Bryan Davis will provide an overview of national best practices on bike parking style/type and location, and provide you with some model bylaw language. CCRPC will be seeking 2-3 municipalities interested in working together to refine and incorporate model bylaw language into municipal regulations.
- 3:10 Sharing Skill Sets, Paul Conner & Regina Mahony**
We have an idea to better facilitate peer learning and skill sharing at the PAC. Have you done a deep dive into a specific topic for a zoning bylaw that others could benefit from? If you are willing to share, we'll have a sign-up sheet at the meeting so we can get these 15 min. presentations added to the agendas going forward. Thanks in advance for your enthusiastic participation.
- 3:25 Building Homes Together Training Topics – Bonus Densities Pt. I, Regina Mahony**
Review a compilation of the current bonus density provisions for affordable housing; and an initial discussion on the success of these provisions. I hope to get the compilation out to you before the meeting.
- 3:50 Bolton Town Plan Preliminary Review*, Lee Krohn**
- 4:20 Regional Act 250/Section 248 Projects on the Horizon, Committee Members**
- 4:25 Other Business**
- a. Population Forecasts – By Feb. 8th we expect to receive the answers to the current questions on county age cohorts, interim countywide employment, municipal level population, households, and employment forecasts. These will be presented to the Board on Feb. 15th, and we hope to have a Board vote on March 15th. Would the PAC like to meet for a special meeting on Feb. 8th to review these, or would you prefer to receive them via email (and we can point you to the Board presentation), and make your recommendation at your regularly scheduled March 8th meeting?
 - b. New PSB website, with searchable [ePSB](#)*.
- 4:30 Adjourn**

* = Attachment

NEXT MEETING: February or March 8, 2017 at 2:30pm to 4:30pm.

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CHITTENDEN COUNTY REGIONAL PLANNING COMMISSION
PLANNING ADVISORY COMMITTEE - MINUTES

DATE: Wednesday, November 9, 2016
TIME: 2:30 p.m. to 3:30 p.m.
PLACE: CCRPC Offices, 110 West Canal Street, Suite 202, Winooski, VT

Members Present

Joss Besse, Bolton
Ken Belliveau, Williston
Greg Duggan, Essex
Jacob Hemmerick, Milton
Andrew Strniste, Underhill
Paul Conner, South Burlington
Sarah Hadd, Colchester
Katherine Sonnick, Jericho
Paul Conner, South Burlington
David White, Burlington

Everett Marshall, Huntington
Karen Purinton, Colchester

Staff

Regina Mahony, Planning Program Manager
Melanie Needle, Senior Planner
Charlie Baker, Executive Director
Pam Brangan, GIS Data & IT Manager
Jason Charest, Senior Transportation Planning Engineer

1. Welcome and Introductions

Regina Mahony called the meeting to order at 2:35 p.m. and stated that we've added an agenda item regarding the upcoming ortho-imagery flyover.

2. Approval of September 14, 2016 Minutes

Jacob Hemmerick made a motion, seconded by Ken Belliveau, to approve the October 12, 2016 minutes. No further discussion. MOTION PASSED. David White abstained.

3. Imagery Data Upgrade

Regina Mahony stated that we've added this topic to the agenda because John Adams just sent an email to the VPA listserve a few days ago, and we wanted to explain the situation in Chittenden County. Pam Brangan explained the flyover for the new ortho-imagery is planned for 2018 for the majority of our region, so no decisions need to be made by December. However, half of Huntington will be flown in the Spring of 2017, and that decision needs to be made now. Just as last time, there is an option to upgrade the flyover from 30cm to 15cm. We did buy the upgrade last time, and we'd like to do that again. We will go ahead and put in the application for Huntington. The overall cost in Chittenden County will be much lower than last time, because the State is covering the cost in all designations, and in the Census Urban Area. We anticipate the cost to be \$30-40,000, compared to \$120,000 last time. There is also the option to purchase building footprint (\$47/square mile) and/or impervious surface (\$99/square mile) data, though we don't need to make that decision at the start because we can go back and ask them after the imagery is flown (the State is not going to pay for these). While the December deadline is really just for Huntington, everyone needs to know the FY18 budget numbers now. Pam Brangan estimated a couple \$1,000 at the most for each municipality. The PAC asked if we can provide each municipality with rough estimates for the upgraded imagery, footprint and impervious coverage. Joss Besse asked for this information to be sent to himself and Sharon. There was a question about the new lidar data that we are waiting for – will this be a better quality data set that can be used for all of these same purposes? If so, there may not be a need to upgrade to the better orthophoto imagery. Pam Brangan will look into this and provide the information to the municipalities.

4. Population Forecasts

Melanie Needle explained that we are updating the ECOS Plan and specifically need forecasts for the metropolitan transportation plan (MTP), and the energy plan. The transportation model, used to help update

1 the MTP, requires control totals for households and employment. Forecasts are also needed for modeling
2 associated with energy planning. Because the energy plan work is part of a state wide effort, VEIC is using
3 the high ACCD forecast for the modeling. Melanie explained that the consultant forecast that we got for the
4 transportation model was developed for the State Transportation Plan for the Shumlin administration. This
5 was a statewide projection that was disaggregated to the County. The PAC reviewed the graphs that showed
6 the differences between the various forecasts.
7

8 Ken Belliveau questioned the transportation forecast methodology of disaggregating the state forecast to
9 Chittenden County considering our growth has been so different than the rest of the State? Charlie Baker
10 indicated that we'd like to hear any issues that folks have; he explained that we are going to have the Board
11 approve the forecasts (County and municipal) and would like all of us to be comfortable with these; and
12 suggested that these numbers are a forecast, not necessarily the goal to strive toward in the plans.
13

14 Ken Belliveau further explained that the ACCD projection seems more credible as it is based off of cohorts. It
15 does seem that the current ECOS projection is very high and unrealistic. The ACCD model seems sensitive to
16 what is really happening on the ground in Williston; and it did appear to show that the County was different
17 than the other Counties. Ken Belliveau further added that we may want to include the forecast as a range.
18

19 Joss Besse asked if we are hoping to use the same projections for both ECOS, MTP and Energy Plan? Charlie
20 Baker stated that we'd ideally like to. Though, the out years for each of the forecasts is different and currently
21 we are stuck with VTrans using one projection, and the state wide energy planning effort using another.
22

23 Paul Conner asked about the fact that ACCD is basing its forecast on 1990 to 2000 growth rate, while EPR is
24 basing their forecast on 2000 to 2010, so it makes sense that the results would be very different. Ken
25 Belliveau suggested that it may make more sense to build the forecast off of a longer history. David White
26 added that these two decades are a peak and a valley so they are two extremes. Paul Conner has suggested that
27 we look at actual numbers rather than rates, especially when looking back over 10 years because it doesn't
28 compound. Paul Conner stated that the forecast they had done in South Burlington also showed no new
29 population growth.
30

31 Charlie Baker stated that while the ACS survey is not a great source, it has shown a growth of 8 to 900 people
32 per year. Does that seem right? Williston has seen an increase in population and housing. They are seeing
33 twice the regional growth rate. South Burlington is seeing 140 housing units/year, however the forecast
34 indicates that the population will remain flat for 10 years due to demographic shifts. Paul indicated that while
35 this was based on a sound methodology it is still hard to believe. Sarah Hadd explained that the State no
36 longer compiles birth and death rates, and asked if Paul's consultant did this work. Paul Conner didn't have
37 the information in front of him, and isn't sure. Sarah Hadd's sense is that Colchester is staying flat, but it is
38 really hard to know without the birth and death rates. However, there still seems to be a demand for more
39 housing units and particularly multi-family. Greg Duggan indicated that it feels like Essex is closer to
40 Williston, but haven't investigated. Jake Hemmerick stated that they haven't investigated in Milton lately, but
41 based on actual parking needs it doesn't appear that the household sizes are shrinking, at least in the
42 townhouse units. Jericho doesn't seem to be growing. Burlington may very well grow if everything in the
43 pipeline goes through. There is no one from Winooski here, but it appears that there is quite a bit of growth in
44 Burlington and Winooski.
45

46 Charlie Baker indicated that we will bring these questions back to the consultants, and will share figures with
47 you when we get them.
48

49 **5. ECOS Annual Report – Planning Area Growth Indicator**

50 Regina Mahony stated that we wanted to share the data from the ECOS Housing Indicator since we just put it
51 together. Melanie Needle gave a brief overview of the housing data. Eighty-six percent (86%) of the new
52 housing units occupied in 2015 are in the areas planned for growth. We've always met the 80% goal since
53 we've been tracking, but this is the highest percentage that we've seen since we've been tracking this. Paul

1 Conner stated that the map is great, but it would be helpful if the multi-family dot was larger so you could
2 clearly see that those contain a higher number of units than the single family houses. Ken Belliveau stated that
3 Williston did some mapping based on number of units, and the density really jumps out to you that way.
4 Regina Mahony asked for everyone to let us know if the Planning Area boundaries have changed so we can
5 reflect that in the updated ECOS Plan, though we hope there won't be any shifts into the rural planning area.
6 Melanie Needle asked the PAC if it would be okay to ask for the 2016 development data in December and
7 receive it in January. The PAC would prefer for the ask to come in January.
8

9 **9. Regional Act 250/Section 248 Projects in the Horizon**

10 So. Burlington – 109 Cider Mill approved now, but the applicant wants to go to 170.
11

12 Milton – nothing for Act 250, however they recently received an application for an access permit for a 120'
13 tall telecommunication tower in the public road ROW. South Burlington, Colchester and Williston have also
14 heard from this company - Mobility co. out of the Atlanta area. They build one 120' utility pole so you need
15 less. Colchester and South Burlington have denied the access permits.
16

17 Underhill – one act 250 amendment to move a building envelope in a quarry.
18

19 Essex – hearing started last week for the quarry and conservation areas in Saxon Hill. The Indian Brook 9 lot
20 subdivision got denied, so they are going back. They only have to go to Act 250 because a co-applicant was
21 signed onto an application in So. Burlington. The Town would receive a good amount of conserved land out
22 of that subdivision. Another application for 30 units in Essex/Essex Junction.
23

24 Williston – Cotton Wood II is the only big project on the horizon.
25

26 Huntington – there is an Act 250 application to upgrade a ski trail.
27

28 Colchester – going to get a 50 unit building in the spring in growth center so won't trigger act 250.
29

30 Burlington – section 248 rooftop solar in south end Flynn ave. There is a public hearing for re-zoning for
31 Cambrian Rise (old orphanage) on 11/28. After that they will be able to submit application. Downtown Mall
32 project is exempt from Act 250 with 274 units.
33

34 **10. Other Business** - none
35

36 **11. Adjourn**

37 The meeting adjourned at 3:45 p.m.
38

39 Respectfully submitted, Regina Mahony

Preliminary Review of the 2016 Bolton draft Town Plan
Lee Krohn, AICP, CCRPC Senior Planner
January 2017

The Town of Bolton has asked, per 24 V.S.A. §4350, that the Chittenden County Regional Planning Commission conduct a preliminary, informal review of its 2017 draft Town Plan.

This draft is a major rewrite of the current Plan. It is a thoroughly researched, incredibly encyclopedic presentation of information about the community, and represents a significant and sustained effort by the Bolton Planning Commission and CCRPC staff. The Plan as reviewed here is in substantially complete form, but does not yet include the introduction, discussion on compatibility with other plans, two appendices (which are not required but are thought to be helpful by the Planning Commission), and the required maps. That said, this draft Plan includes sufficient content to make findings on many aspects of structure, content, and compliance. The Planning Commission expects to finish this draft shortly, is preparing to warn its public hearing for February of this year, and when ready, will submit the complete Plan for formal review by the PAC.

Following the Chittenden County Regional Planning Commission's (CCRPC's) *Guidelines and Standards for Confirmation of Municipal Planning Processes and Approval of Municipal Plans (2016)* and the statutory requirements of 24 V.S.A. Chapter 117, I have reviewed the draft 2017 Bolton Town Plan to determine whether it is:

- Consistent with the general goals of §4302;
- Consistent with the specific goals of §4302;
- Contains the required elements of §4382;
- Compatible with the 2013 Chittenden County Regional Plan, entitled the *2013 Chittenden County ECOS Plan* (per §4350); and
- Compatible with approved plans of other municipalities (per §4350).

Staff Review Findings and Comments: *with the caveats noted above,*

1. The draft 2017 Bolton Town Plan appears consistent with all of the general goals of §4302.
2. The draft 2017 Bolton Town Plan appears consistent with the specific goals of §4302.
3. The draft 2017 Bolton Town Plan will include the required elements of §4382.
4. The draft 2017 Bolton Town Plan is generally compatible with the planning areas, goals and strategies of the 2013 Chittenden County Regional Plan, entitled the *2013 Chittenden County ECOS Plan*. A question has been raised whether increasing density in the West Bolton 'hamlet' area is consistent with the ECOS plan. Given circumstances described in the Town Plan, this likely makes good sense on the local level. Further, given the very small land area involved, this is also likely to be statistically insignificant at the county level; and given the physical constraints present, is unlikely to create or lead to incremental sprawl or unchecked development that would otherwise be inconsistent with rural planning areas as described in the ECOS plan and map.

CCRPC Formal Staff & PAC Review – 2017 Bolton draft Town Plan
January 11, 2017 PAC Meeting

5. The draft 2017 Bolton Town Plan appears compatible with the municipal plans for the adjacent Chittenden County towns of Huntington, Jericho, Richmond, and Underhill, as the land use plans for each are fundamentally similar on either side of these borders. *Note: although I have not yet researched plans for the three adjoining municipalities in Washington County, staff planner Emily Nosse-Leirer, who has been working with the Town of Bolton on this Plan, informs me that she has reviewed the plans for those municipalities, and finds no issues or concerns regarding compatibility. As noted above, the final draft of the Town Plan will include the required section on compatibility, and will address this matter conclusively.*

Additional Comments on this draft Plan:

Suggestions have been made regarding:

Structure and organization – whether it helps to have information on various topics (for example, energy use and transportation) to be included in multiple sections, or might be consolidated into single sections;

Whether certain goals or actions follow logically from the descriptive text in those sections, or might be revised to both better reflect the issues raised, and also project more future planning related action;

Whether certain goals or actions are internally consistent;

How certain phrases or sections might be revised to be more clear in purpose and intent; and

Whether the excellent concepts presented in the beginning (“maintain, evolve, transform”) might be carried through and add great value to the entire plan. Perhaps rather than using the traditional approach stating goals, policies, and actions, those ‘next steps’ might be framed instead in that construct; alternatively, perhaps the action list at the end of the plan can be framed in that way. This might help the Plan to become somewhat more future oriented, and to frame the Town’s goals in a more action-oriented construct.

In conclusion, as noted at the beginning, this Plan is an incredibly, thoroughly researched document. It presents a comprehensive description of the history and current circumstances of the Town of Bolton, and follows in very detailed form the long list of ~~suggested or~~ required elements in statute and in the state’s planning manual.

Perhaps a larger question for another day, and this is no criticism of the hard work encompassed here, is whether statute and the planning manual are a help, or a hindrance, to creating town plans that truly help envision hopes, needs, and dreams for the future.

Proposed Motion & Next Steps:

None needed at this time; the plan, once completed, ~~the Plan~~ will be submitted to the PAC for public hearing, review, and formal consideration.



“Our vision is to foster community connections, vibrant neighborhoods, and gathering places where residents and visitors can meet, socialize, and celebrate.”

CHAPTER 1 | PEOPLE

Historic Bolton

The range of historic sites in Bolton exemplifies and documents the way the land has been settled and used. Bolton developed primarily as a farming community and mill town. Much of the town's history is no longer evident on the land – many former mills, homes, commercial and civic buildings were destroyed in floods, removed following purchase by the federal government (for the Ethan Allen Firing Range), or torn down after abandonment.

Archeological Resources. Numerous archeological sites and historic landscape features, ranging from Native American rock shelters and camp sites to old cellar holes and stone walls, are also found in Bolton. Most prehistoric sites identified to date are located in the Winooski River valley – a major travel route through the Green Mountains. In order to protect these sites, their locations are not identified on plan maps.

Listed Historic Sites and Districts. Bolton currently has two sites listed on the National Register of Historic Places – the Preston-Lafreniere Farmstead and Honey Hollow Camp – and 15 on the Vermont State Register of Historic Places. These historic sites were inventoried in 1976 and are shown on Map X and listed in the Town Profile. Register listings have not been updated.

The Stevens Mill Historic District, consisting of four buildings used to house workers at the C. P. and G. W. Stevens Lumber mill, is the only historic district currently listed in Bolton.

Other Historic Resources. There are other known historic sites and features that are significant and old enough to qualify for listing including:

- » Two historic cemeteries dating from the 1820s.
- » Sites in West Bolton and Honey Hollow, for which inventories were initiated but not completed.
- » Historic barns, which were documented by UVM in 2010.
- » The locations of two Irish railroad worker camps (Dublin and Cork) on Bolton Flats that were associated with the 1846 Bolton Riots, which are generally known but not fully documented.
- » Bolton Valley Resort, which is also now more than fifty years old and retains much of its character as a 1960s ski resort.

Historic Resource Protection. Identified historic resources, including listed structures, are protected to a limited extent under the town's land use regulations, which include provisions allowing for adaptive reuse.

1. Identify, protect, and preserve significant features of Bolton's history, including historic districts, sites, structures, historic landscape features, archaeological sites and archaeologically sensitive areas.

1.1. Increase the amount of information available about the town's historic, cultural and scenic resources.

1.2. Preserve and protect identified cultural, historic and scenic resources, including sites and structures listed on or qualified for listing on the State Register of Historic Places, from the adverse impacts of development.

1.3. Provide options and incentives for property owners to preserve and maintain historic properties in town.

GOALS & OBJECTIVES

You can learn more about Bolton's history by looking at historical accounts, photos and register listings on Bolton's town **WEBSITE**, including local histories by town historian Gardiner Lane, and by taking a walking tour of West Bolton's former historic hamlet.

MORE INFO



Preston-Lafreniere Farmstead

Population Growth

The town's mountainous terrain means that most of Bolton's land is too steep to develop, so development potential and large future population growth is limited.

GOALS & OBJECTIVES

2. Bolton's population will continue to grow at a steady rate.

2.1. Bolton will plan for a population growth rate of 2% or less per year.

2.2. Bolton will work to be an appealing town for young families.

Historic Trends. Interstate 89 was constructed through Bolton between 1961 and 1964, and Bolton Valley Resort was founded in 1966. This led to a population boom that continued through the 1980s. Population growth has slowed in recent decades. Since 1990, the town has grown at a slow but steady rate of 1.1% annually—about 11 people every year. Bolton's population is also aging significantly.

Current Condition. With a 2014 estimated population of 1,247 residents, Bolton is one of the smallest towns in Chittenden County. Bolton's population is also very geographically distributed, making it one of the most rural towns in the county and state.

Future Projections. Bolton's population is projected to continue growing at this rate of about 1.1% per year, reaching an estimated 1,250 to 1,400 people by 2030.

Education

Although Smilie School has fewer than 100 students in any given year, it plays a large role in the social fabric of Bolton. Residents feel a great deal of pride in the school and hope that it remains open.



Mrs. Cole's class making apple pies - October 11, 2016

Smilie School. Enrollment at Smilie School, Bolton's elementary school for pre-kindergarten to fourth grade, has been on a downward trend from 2005-2015, but future enrollment levels at the school remain uncertain. An increase of a few young families can lead to a large enrollment increase, which happened in 2015-2016.

Union School District. Bolton voted to join the Mount Mansfield Modified Union School District with Richmond, Jericho and Underhill in 2014. MMMUSD is a single entity governing education from pre-K through 12th grade in the three communities.

Adult Education. Adults in Bolton have access to a wide range of technical training opportunities, colleges, universities and community education events throughout the region. Post-secondary students under the age of 26 can apply for one of up to five annual Wheeler Trust Scholarships administered by the town.

MORE INFO

You can read about the future of the Smilie School building in the **FACILITIES** section.

Childcare

For families with working parents, quality childcare is important for the safety, wellbeing and education of their children. Childcare is hard to find, and affordable childcare is even rarer.

Pre-School Age Children. The majority of families in Bolton rely on out-of-home-care for their youngest children. In 2016, it is estimated that there were at least three children under 5 years old in Bolton for every one childcare spot in the town—and all of the available spots were claimed, leaving no vacancies.

School-Age Children. For school aged children, childcare is available through Part 2 before and after school for enrolled students, but students older than kindergarteners must be bussed to Richmond for care.

Summer Programs. Summer childcare for students is a challenge as well. Part 2 and Our Community Cares Camp offer summer care, but with fixed schedules that cannot accommodate all parents' needs.

3. Every Bolton resident will be able to access the health care, childcare, educational and social opportunities they need.

3.1. Increase access to educational and social activities for all ages.

3.2. Increase scholarship funding for Bolton residents seeking higher education.

3.3. Increase access to services for all Bolton residents.

3.4. Evaluate the childcare needs of Bolton residents.

3.5. Increase the annual number of Bolton residents visiting local senior centers.

3.6. Increase the annual number of Bolton residents utilizing the Elderly and Disabled Transportation provided by Champlain Valley Agency on Aging.

3.7. Increase the number of residents volunteering through Chittenden Valley Agency on Aging.

Social Services & Community Health

Bolton's rural nature is prized by its residents, and provides ample opportunities for recreational pursuits and healthy activities, but it may present challenges to aging residents or residents with disabilities.

Aging Population. Like many towns in Vermont, Bolton's population is getting older. The number of residents over 65 years of age is projected to more than double by 2030, when residents over 65 years of age are projected to make up 20 to 30% of Bolton's population.

Bolton's rural nature may present challenges to the increasing number of residents who choose to age in place, including difficult driving conditions and long distances between home and necessities. While services such as the Visiting Nurse Association and the Champlain Valley Agency on Aging's Elderly and Disabled Transportation program may help those residents, they may not be able to meet the demand.

A number of nonprofit and volunteer programs are also available to Bolton's seniors, including the Waterbury Senior Center, which provides social and educational programs and meals; Bolton's monthly senior dinners; Meals on Wheels; and the Champlain Valley Agency on Aging's Elderly and Disabled Transportation program.

In February 2016, the Bolton Planning Commission reached out to seniors to learn about their needs. While most seniors love the community and natural beauty of Bolton, some said that they were challenged by transportation, home maintenance and the lack of a senior center.

For more information on the planning commission's senior forum, click [HERE](#).

Community Connection

*add an intro sentence here

GOALS & OBJECTIVES

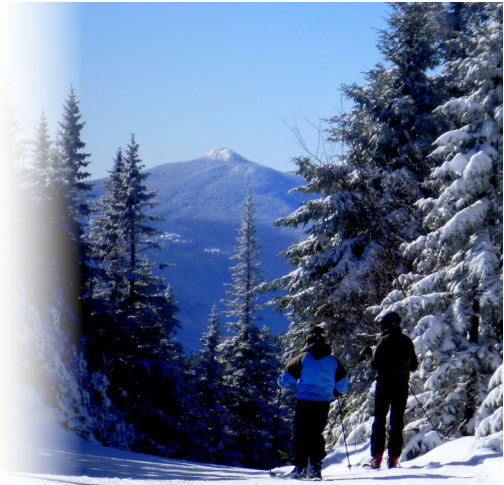
4. Bolton residents will feel a strong sense of community, both within their neighborhoods and across neighborhood boundaries.

4.1. Look for opportunities to increase the number of town residents attending Town Meeting every year.

4.2. Increase the number of town residents who attend a town wide social event every year.

Bolton residents are more likely to feel a sense of community with their neighborhood than the community as a whole. However, during the community engagement completed for this plan during the fall of 2015, residents revealed that they value their relationships with friends and neighbors in town, and expressed an interest in a greater sense of town-wide community. Residents with children in Smilie School find school events to be an enjoyable way to connect with community members. However, more opportunities are needed for community connection for all ages and family types.

mountainous rugged
beautiful rural
fun peaceful
paradise quiet mountain town community green
skiing
natural great area friendly small mountains
access recreation woods ski



How would you describe Bolton in five words or less?

Housing

Bolton is primarily a bedroom community, and many residents with full time jobs commute to the Burlington area and other regional job centers.

Current Housing Stock. Most of Bolton's homes were built in the 1970s and 1980, meaning that they are likely not energy efficient and may have lead paint. Bolton has a higher percentage of mobile homes and condominiums than most Chittenden County towns.

Future Housing Needs. Most homes in Bolton are occupied by one or two people, and these small households are the fastest growing in town. Because of this, it is likely that by 2030, the town will need about 50-80 more homes for new residents. Sales of homes, new construction and prices have all stagnated in Bolton since 2008.

Finding appropriate areas for developing new homes can be challenging in Bolton, because of the town's many development constraints. As the town continues to grow, the majority of new housing should be concentrated along Route 2 and in West Bolton. If infrastructure improvements allow, Bolton Valley may become a site for new development as well. Bolton must use creative strategies to overcome the town's development constraints.

Housing Costs and Affordability. Housing in Chittenden County is very expensive, but Bolton residents are less cost burdened than the rest of the county. Condominium prices in Bolton have decreased in recent years, compared to the county, and Bolton's median price for a single family home (\$300,000) is in what local realtors consider the "sweet spot" for Chittenden County home buyers.

This price is more than the average Bolton household can afford, and homes in Bolton remain on the market for twice as long as the county average. So, even though housing is more affordable in Bolton than in the rest of the county, Bolton residents may have difficulty finding an affordable place to live. A Bolton resident who also works in Bolton would have an especially difficult time.

Most residents commute to jobs outside of Bolton, and transportation costs are consequently high. The US Department of Housing and Urban Development estimates that an average family in Bolton spends 25% of their income on transportation every year.

5. Bolton will strive to increase safety and affordability of housing for residents.

5.1. Given the town's planned rate of growth of 1.1%, Bolton anticipates the construction of 5 units per year, built in appropriate areas as discussed in the Land Use section.

5.2. Increase opportunities for rehabilitation of Bolton's housing stock.

5.3. Decrease the number of abandoned and/or unsafe buildings in Bolton.

5.4. Increase the number of accessory housing units.

5.5. Increase the number of residents who are not burdened by housing costs.

See the **LAND USE** section of this plan for a detailed discussion on development constraints and where future development should be located.

For more information on transportation and where Bolton residents work, see the **PROSPERITY** section.

2017 BOLTON TOWN PLAN

January 9, 2017 Draft

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Introduction

Vision Statement

The Bolton Planning Commission, in surveys and community meetings, asked town residents, including children, elders, and business owners, what we value most about Bolton, and what we envision for its future. These discussions highlighted what is special about Bolton: its natural landscape, rugged scenic beauty and wildlife, working farms and forests, distinct neighborhoods, ski area and easy access to outdoor recreation, and its convenient location halfway between Burlington and Montpelier. When we talk about the future, we unite around the following shared vision:

People. Our vision is to foster community connections, vibrant neighborhoods, and gathering places where residents and visitors can meet, socialize, and celebrate.

Place. Our vision is to responsibly steward our natural resources and working farms and forests, and to preserve the health and beauty of our mountains, waterways and wildlife, and access to the outdoors.

Prosperity. Our vision is to cultivate a fiscally sustainable community that promotes local businesses, encourages options for affordable housing, energy and transportation, and provides the necessary infrastructure and services needed for the safety, health and well-being of our residents.

This plan identifies the key issues and challenges surrounding these issues and identifies goals, strategies and actions to advance these values.

Purpose of this plan

The Bolton Town Plan will act as the framework for all of Bolton's development from 2017-2025. The plan is the foundation for the zoning regulations (the Bolton Land Use and Development Regulations or BLUDRs), including regulation of Special Flood Hazard Areas and River Corridors. The plan informs town budgets and the planned facility, road and infrastructure improvements identified in the Capital Improvement Plan. The plan describes how Bolton will protect its natural resources, advance economic wellbeing in the town and ensure the availability of safe and affordable housing.

Using the Plan

The Town Plan is used by a variety of entities.

- The Selectboard uses the town plan as a guiding document when deciding policy for the town
- The Planning Commission uses the town plan to inform the zoning regulations (Bolton Land Use and Development Regulations or BLUDRs) that will regulate development proposals.
- The Development Review Board and the Conservation Commission use the town plan to understand the reasoning behind the zoning regulations (Bolton Land Use and Development Regulations or BLUDRs) and because it identifies the town's priorities for the protection and preservation of natural, scenic and historic resources

- The Capital Improvement Committee uses the town plan to decide priority actions for capital improvements.
- The Economic Resources Committee uses the town plan to identify economic development priorities for Bolton
- Residents use the town plan as a source of information about the town's history and its vision for the future
- The State of Vermont uses the town plan to determine whether Bolton is eligible for state grants and project funding
- The Public Service Board uses the town plan during Section 248 proceedings
- The District Environmental Commission uses the town plan during Act 250 proceedings

Compatibility with Other Plans

The Bolton Town Plan is compatible with the ECOS Plan (the regional plan for Chittenden County) and the municipal plans of all adjoining municipalities.

ECOS Plan: The ECOS Plan establishes broad, high-priority strategies to strengthen the economy, increase resilience, maintain working lands and natural resources, improve health, facilitate access to education, develop efficient finance and governance systems and increase inclusion of all residents in programs. The Bolton Town Plan works towards similar goals on a local level. The ECOS Plan also includes a strategy of striving for 80% of new development to be located in areas planned for growth, which equal 15% of growth. In the 2013 ECOS Plan, the areas identified as being planned for growth in Bolton were the Route 2 Village Area and the Bolton Valley Resort Area. This plan proposes the creation of a new Hamlet District in the West Bolton area, which would increase the amount of area in Bolton that is planned for growth. However, 77% of Bolton is still conserved land, and the creation of the Hamlet District in West Bolton increases the amount of land planned for growth in Bolton to 3.4%. Therefore, the town plan is still compatible with the ECOS Plan.

Duxbury: Most of Bolton's border with Duxbury is included in Camel's Hump State Park. This area is located in Bolton's Conservation District and Duxbury's Ecological Reserve Lands District, both of which prohibit almost all development. The rest of the border lies along the Winooski River, and is located in Bolton's Rural I District and Duxbury's Rural Agricultural II District. Both Districts allow for low-density development, but the presence of the floodplain severely limits development potential on both sides of the river.

Huntington: Bolton's border with Huntington is mostly within the Conservation District due to the presence of Camel's Hump State Park. A small section of the border is within Bolton's Forest and Rural II District and Huntington's Rural Residential and Woodland District, both of which allow for very limited development.

Jericho: Approximately half of Bolton's border with Jericho is located within the Ethan Allen Firing Range. This area is included in Bolton's Conservation District and in Jericho's Open Space District. Almost all development is prohibited in both districts. The rest of the border is split between the proposed Hamlet District and the Rural I District in Bolton, and between the Rural/Agriculture Residential and Forestry Districts in Jericho. The Rural I District in Bolton and the Forestry District in Jericho both allow for limited, low density development. The Rural/Agriculture Residential District in Jericho is intended to

1 provide land for agriculture and forestry while allowing for limited low density development. This district
2 abuts the proposed Hamlet District. However, even with the smaller lot sizes intended in the Hamlet
3 District, Bolton's anticipated rate of growth is approximately 5 homes per year. Therefore, it is unlikely
4 that the increased density will create additional development pressures in Jericho.

5 **Richmond:** The land on Bolton's border with Richmond is located within the Conservation, Forest, Rural I
6 and Rural II Districts. In Richmond, the land is all located within the Agricultural/Residential District,
7 which has a one-acre minimum lot size. Lot sizes in Bolton along the Richmond border vary widely.
8 However, given Bolton's development constraints, development in Richmond's Agricultural/Residential
9 District will likely not create development pressures in Bolton.

10 **Stowe:** Bolton's border with Stowe is located completely within the Mt. Mansfield State Forest. This
11 area is included in Bolton's Conservation District and in Stowe's Ridgelines/Hillside Overlay District, both
12 of which prohibit almost all development.

13 **Underhill:** Bolton's border with Underhill is located completely within the Ethan Allen Firing Range. This
14 area is included in Bolton's Conservation District and in Underhill's Soil and Water Conservation District.
15 Almost all development is prohibited in Bolton's Conservation District, and limited development is
16 permitted in Underhill's Soil and Water Conservation District.

17 **Waterbury:** Most of the border between Bolton and Waterbury is part of Mt. Mansfield State Forest. All
18 of the land in Waterbury that borders Bolton is in the Waterbury Conservation District, which prohibits
19 most development. Some areas bordering the Mt. Mansfield State Forest in Bolton are in the Forest
20 District, which limits development and is compatible with Waterbury's Conservation District. Along
21 Route 2 and north of it, land in Bolton bordering Waterbury is designated as part of the Rural I and II
22 District, which have large lot sizes (2 acres and 10 acres respectively) that are compatible with the
23 Waterbury Conservation District.

Community Engagement

Between September 2015 and March 2016, the Planning Commission reached out to the community and engaged almost 150 people in a conversation about the future of Bolton. Through a series of events, meetings and surveys, Bolton residents were asked what they valued about Bolton and what they envisioned for the future of the town. Based on the results of these community engagement efforts, the Planning Commission drafted a statement describing what Bolton residents value and how those values translate into a vision for the future of the Town ([hyperlink to vision statement](#)).

Community Kickoff Event and Pizza Party

On September 30, 2015, over 50 residents heard a presentation about the purpose of the Town Plan and then walked around the Smilie School auditorium with their neighbors, answering four questions:

1. What is the best thing about Bolton and what do you value about the Town?
2. What do you hope will stay the same?
3. What do you hope will change?
4. What ideas do you have the future of Bolton?

Meeting attendees wrote down answers and left comments on what had already been written. The Planning Commission also introduced the **Maintain-Evolve-Transform Map [link] (Figure X)**, which gave attendees an opportunity to identify specific places on a map of Bolton that they hope will

1. Remain as they are (Maintain)
2. Change slightly for the better (Evolve)
3. Be completely reinvented (Transform).

Neighborhood Forums

Recognizing the distinct separation between different areas of Bolton, the Planning Commission hosted four neighborhood forums to ensure that every resident would have a chance to discuss the issues that mattered most to them and their neighbors. Discussion at the forums was guided by the four questions from the kickoff event, as well as the Maintain-Evolve-Transform Map. From the conversations at each forum, Planning Commissioners gained an understanding of important issues for each neighborhood and for Bolton as a whole.

To see the results from the community engagement events conducted in 2015 and 2016, visit the Bolton Town Website.

Smilie School Student “Plans”

Bolton’s youngest residents also contributed their thoughts about the future of the town. **XX** third grade students in **TEACHERS’ NAMES** classes practiced their discussion skills and wrote and presented mini-plans related to the future of small business, wildlife, recreation and Wheeler Field.

Focus Groups

The Planning Commission also held several meetings to ensure that business owners and seniors had the opportunity to give input to the town plan. The responses from business owners informed the Economy section of the plan, while input from seniors helped shape the People section of the plan.

Survey

A survey was distributed to meeting attendees, mailed out with the Bolton Gazette and made available online. Respondents were asked to identify what they valued about Bolton, why they chose to live in Bolton, and to rank possible goals for the town. Respondents were also asked to choose five words to describe Bolton, intended to capture the “Spirit of Bolton” (see Figure XX).

“Spirit of Bolton” Art Contest

Artwork that captures the “Spirit of Bolton” was solicited through an all-ages art contest with prizes sponsored by Artists’ Mediums in Williston. Over XX submissions were received and judged. The judges’ favorite pieces are included throughout this plan.

Town Meeting Day 2016

At Town Meeting Day, the Planning Commission presented the Bolton Vision Statement and the goals for the Town Plan to residents and asked for feedback. Residents prioritized goals and approved/offered suggestions for changes in the Vision Statement. The prioritization of goals and the Vision Statement in this Plan reflect their feedback.

Town Priorities Event

In December 2016, most of the Town Plan was drafted, but it included over 75 objectives and over 200 actions. Recognizing that only a fraction of these could be accomplished over an eight-year period, the Planning Commission hosted another public forum to determine the Town’s priorities. Attendees participated in a round-table discussion and ranked the objectives based on perceived feasibility and the town’s values.

Public Hearings

To be continued...

September 30, 2015: Community Kickoff Meeting at Smilie School

October 1, 2015: Duxbury Road Forum in the Kilpeck’s Horse Barn

October 6, 2015: Bolton Valley Forum at the Bolton Valley Ski Resort

October 15, 2015: Route 2 Forum at Smilie School

October 20, 2015: West Bolton Forum at the West Bolton Golf Club

November 19, 2015: Bolton Valley Economic Discussion

January 26, 2016: Business Forum

February 6, 2016: Senior Forum

February 29, 2016: Bolton Town Meeting and Art Contest Gallery

December 5, 2016: Town Priorities Event

Chapter 1: People

Historic Bolton

The range of historic sites in Bolton exemplifies and documents the way the land has been settled and used over several thousand years, including Bolton's 250+ year history as a town. Much of the town's history is no longer evident on the land – many former mills, homes, commercial and civic buildings were destroyed in floods, removed following purchase by the federal government (for the Ethan Allen Firing Range), or torn down after abandonment.

Archaeological Resources

Numerous archeological sites and historic landscape features, ranging from Native American rock shelters and camp sites to old cellar holes and stone walls, are also found in Bolton. Most prehistoric sites identified to date are located in the Winooski River valley – a major travel route through the Green Mountains. In order to protect these sites, their locations are not identified on plan maps.

Listed Historic Sites and Districts

Bolton currently has two sites listed on the National Register of Historic Places – the Preston-Lafreniere Farmstead and Honey Hollow Camp – and fifteen on the Vermont State Register of Historic Places. These historic sites were inventoried in 1976 and are shown on Map 5 and listed in the Town Profile. Register listings have not been updated.

The Stevens Mill Historic District, consisting of four buildings used to house workers at the C. P. and G. W. Stevens Lumber mill, is the only historic district currently listed in Bolton.

Other Historic Resources

There are other known historic sites and features that are significant and old enough to qualify for listing. The town has two historic cemeteries, dating from the 1820s. Inventories of existing historic sites in West Bolton and Honey Hollow were initiated in recent years, but never completed, as required for historic district nomination. UVM also conducted a census of Bolton's historic barns in 2010. The locations of two Irish railroad worker camps ("Dublin" and "Cork") on Bolton Flats – associated with the 1846 "Bolton Riots" – are also generally known, but have yet to be fully documented. Bolton Valley Resort is also now more than fifty years old – and though not necessarily "historic," retains much of its character as a 1960s ski resort.

WANT TO LEARN MORE?

You can learn more about Bolton's history by looking at [historical accounts, resources, photos and register listings on Bolton's town website – including local histories authored by town historian Gardiner Lane](#); and by taking a walking tour of West Bolton's former historic hamlet, documented by UVM for the Ethan Allen Firing Range.

GOAL: IDENTIFY, PROTECT, AND PRESERVE SIGNIFICANT FEATURES OF BOLTON'S HISTORY, INCLUDING HISTORIC DISTRICTS, SITES, STRUCTURES, HISTORIC LANDSCAPE FEATURES, ARCHAEOLOGICAL SITES AND ARCHAEOLOGICALLY SENSITIVE AREAS

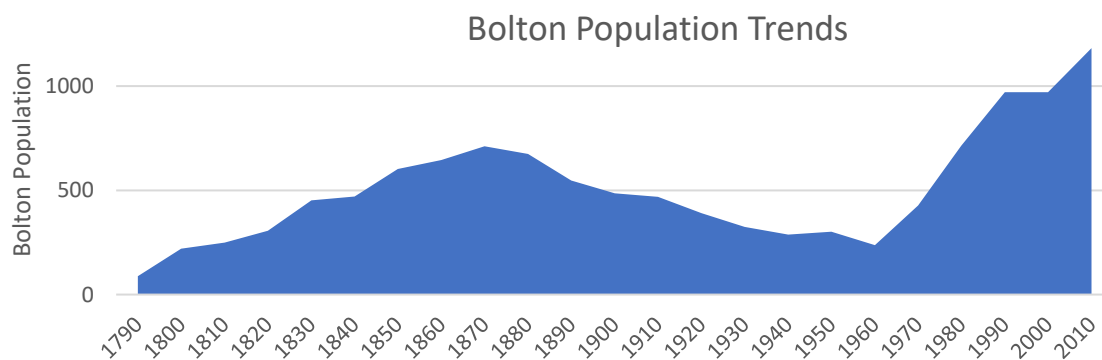
I. Objective: Increase the amount of information available about the town's historic and cultural resources.

II. Objective: Preserve and protect identified cultural and historic resources, including sites and structures listed on or qualified for listing on the State Register of Historic Places, from the adverse impacts of development.

1. *Action: Establish a local historical society and/or appoint a town archivist or historian to identify, archive and maintain records and materials pertaining to Bolton's history, conduct interviews with town residents, prepare oral histories, sponsor educational events and programs on Bolton's history and update the Town's historic structures and sites surveys*

Population Growth

With a 2014 estimated population of 1,247 residents, Bolton is one of the smallest towns in Chittenden County. Bolton's population is also very geographically distributed, making it one of the most rural towns in the county and state. Interstate 89 was constructed through Bolton between 1961 and 1964, and Bolton Valley Resort was founded in 1966. This led to a population boom that continued through the 1980s. Population growth has slowed in recent decades. Since 1990, the town has grown at a slow but steady rate of 1.1% annually—about 11 people every year.



Bolton's population is projected to continue growing at this rate of about 1.1% per year, reaching an estimated 1,250 to 1,400 people by 2030. The Town's mountainous terrain means that most of Bolton's land is too steep to develop, so development potential and large future population growth is limited. Bolton's small-town feel, rural character and natural beauty are highly valued by its residents.

[CALLOUT BOX: MAKING THE CONNECTION: YOU CAN FIND MORE INFORMATION ON LAND USE PATTERNS IN THE LAND USE SECTION (HYPERLINK)]

Education

Enrollment at Smilie School, Bolton's elementary school for pre-kindergarten to fourth grade, has been on a downward trend from 2005-2015, but future enrollment levels at the school remain uncertain. An increase of a few young families can lead to a large enrollment increase, which happened in 2015-2016.

In November 2014, Bolton voted to join the newly formed Mount Mansfield Modified Union School District with Richmond, Jericho and Underhill. MMMUSD is a single entity governing all education in the three communities, from pre-kindergarten to senior graduation.

Although Smilie School has fewer than 100 students in any given year, and its future enrollment is uncertain, it plays a large role in the social fabric of Bolton. Bolton residents feel a great deal of pride in the school and hope that it remains open.

MAKING THE CONNECTION

You can read about the future of the Smilie School building in the facilities section ([hyperlinked](#))

Adults in Bolton have access to a wide range of technical training opportunities, colleges, universities and community education events throughout the region. Students under the age of 26 seeking post-secondary education can apply for one of up to five annual Wheeler Trust Scholarships, which are administered by the town.

Childcare

For families with working parents, quality childcare is important for the safety, wellbeing and education of their children. In Chittenden County, the majority of families rely on out-of-home-care for their youngest children, but childcare is hard to find, and affordable childcare is even rarer. In 2016, it is estimated that there were at least three children under 5 years old in Bolton for every one childcare spot in the town—and all of the available spots were claimed, leaving no vacancies.

For school aged children, childcare is available through Part 2 before and after school for enrolled students, but students older than kindergarteners must be bussed to Richmond for care. Summer childcare for students is a challenge as well. Part 2, Our Community Cares Camp and the Jericho Summer Recreation Camp offer summer care, but working parents may still face a challenge finding care for the hours it is needed.

Social Services and Community Health

Bolton's rural nature is prized by its residents, and provides ample opportunities for recreational pursuits and healthy activities, but it may present challenges to aging residents or residents with disabilities. Like many towns in Vermont, Bolton's population is getting older. The number of residents over 65 years of age is projected to more than double by 2030, when residents over 65 years of age are projected to make up 20 to 30% of Bolton's population.

Bolton's rural nature may present challenges to the increasing number of residents who choose to age in place, including difficult driving conditions and long distances between home and necessities. Services such as the Visiting Nurse Association can help with medical needs, but may not be sufficient for everyone. While services such as the Visiting Nurse Association, the Special Services Transportation Agency and the Champlain Valley Agency on Aging's Elderly and Disabled Transportation program may help those residents, they may not be able to meet the demand.

A number of nonprofit and volunteer programs are also available to Bolton's seniors, including the Waterbury Senior Center, which provides social and educational programs and meals; Bolton's monthly senior dinners; Meals on Wheels; and the Champlain Valley Agency on Aging's Elderly and Disabled Transportation program.

GOAL: EVERY BOLTON RESIDENT WILL BE ABLE TO ACCESS THE HEALTH CARE, CHILDCARE, EDUCATIONAL AND SOCIAL OPPORTUNITIES THEY NEED

III. Objective: Bolton will be an appealing town for young families.

2. *Action: Seek additional donations by residents to the Bolton educational trust.*
3. *Action: Maintain the line item for Our Community Cares Camps in the Bolton Town Budget*
4. *Continue to offer childcare at Bolton Town Meeting and other town-sponsored events.*

IV. Objective: Work with regional service providers to ensure that all Bolton residents, especially seniors, have easy access to quality medical care, support services and social opportunities.

5. *Educate residents about the services provided by the Champlain Valley Agency on Aging, and increase senior services and community connection by encouraging seniors to list their needs on the website and by encouraging younger residents to volunteer to meet those needs.*

WHAT WE HEARD FROM YOU: SENIOR SERVICES

In February 2016, the Bolton Planning Commission reached out to seniors to learn about their needs. While most seniors love the community and natural beauty of Bolton, some said that they were challenged by transportation, home maintenance and the lack of a senior center. For more information on the planning commission's senior forum, [click here \(hyperlink\)](#).

Community Connection

Bolton residents are more likely to feel a sense of community with their neighborhood than the community as a whole. However, during the community engagement completed for this plan during the fall of 2015, residents revealed that they

"Paradise, populated by very special people."

"Warm, loving environment."

-Residents, asked to describe Bolton in 5 words or less

value their relationships with friends and neighbors in town, and expressed an interest in a greater sense of town-wide community. Residents with children in Smilie School find school events to be an enjoyable way to connect with community members. However, more opportunities are needed for community connection for all ages and family types.

GOAL: BOLTON RESIDENTS WILL FEEL A STRONG SENSE OF COMMUNITY, BOTH WITHIN THEIR NEIGHBORHOODS AND ACROSS NEIGHBORHOOD BOUNDARIES

V. Objective: Build community by increasing the number of town residents who attend a town wide event, such as Town Meeting or Bolton Market Day, every year.

6. *Host at least one farmer's market or community fair every summer/fall.*
7. *Host a Bolton Volunteer Fire Department Fundraiser*
8. *Leverage resident interest in community building events by re-establishing and funding the Bolton Recreation Committee*

Housing

Bolton is primarily a bedroom community, and many residents with full time jobs commute to the Burlington or Montpelier areas. Most of Bolton's homes were built in the 1970s and 1980, meaning that they are likely not energy efficient and may have lead paint. Most homes in Bolton are occupied by one or two people, and these small households are the fastest growing in town. Because of this, it is likely that by 2030, the town will need about 50-80 more homes for new residents.

Bolton has a higher percentage of mobile homes and condominiums than most Chittenden County towns. Sales of homes, new construction and prices have all stagnated in Bolton since 2008. Finding appropriate areas for developing new homes can be challenging in Bolton, because of the town's many development constraints. As the town continues to grow, the majority of new housing should be concentrated along Route 2 and in West Bolton. If infrastructure improvements allow, Bolton Valley may become a site for new development as well. Bolton must use creative strategies to overcome the Town's development constraints.

Housing Stock in Bolton, 2015

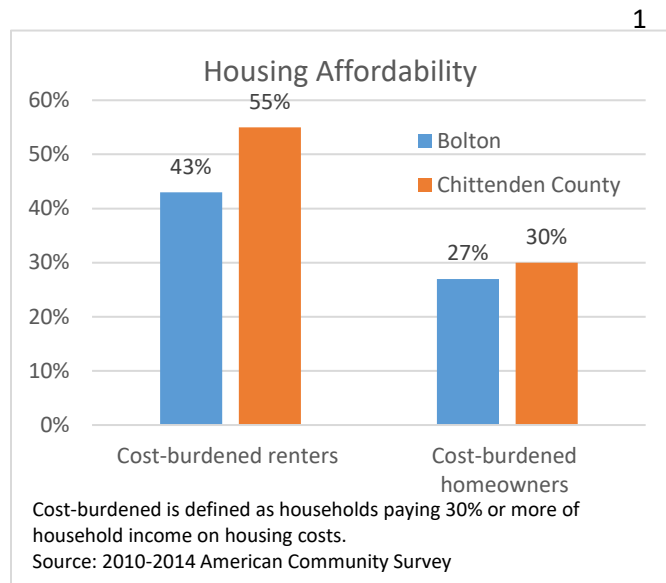
■ Mobile Homes (21%) ■ Single Family Homes (44%) ■ Condominiums (35%)



Source: Grand List

MAKING THE CONNECTION

See the Land Use section of this plan for a detailed discussion on development constraints and where future development should be located.

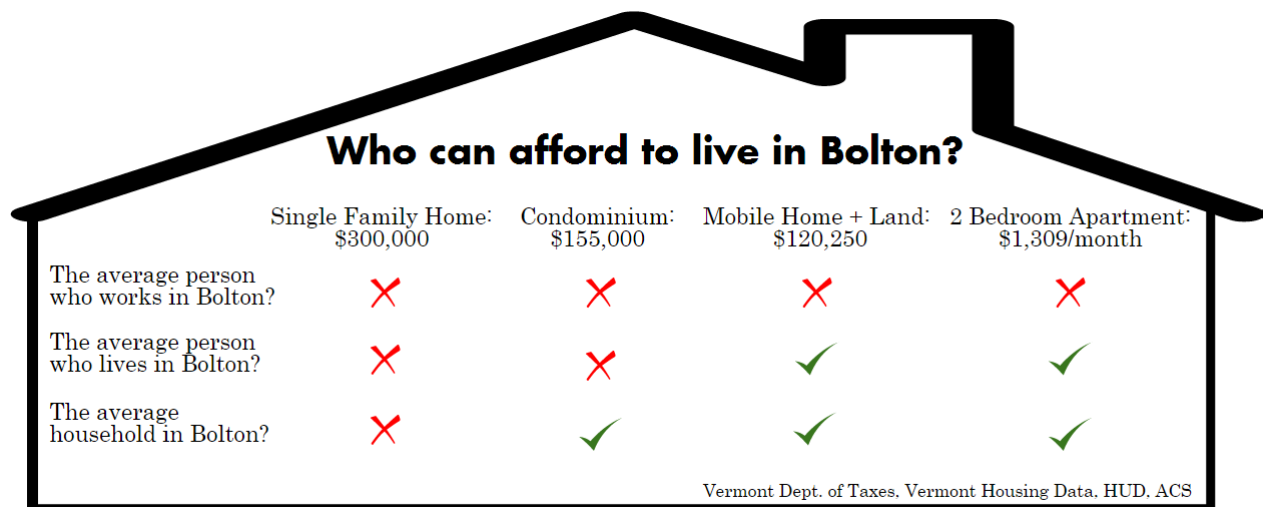


Housing in Chittenden County is very expensive, but Bolton residents are less cost burdened than the rest of the County.

Condominium prices in Bolton have decreased in recent years, compared to the county, and Bolton's median price for a single family home (\$300,000) is in what local realtors consider the "sweet spot" for Chittenden County homebuyers. However, this price is more than the average Bolton household can afford, and homes in Bolton remain on the market for twice as long as the county average.

Even though housing is more affordable in Bolton than in the rest of the County, Bolton residents may have difficulty finding an

affordable place to live. A Bolton resident who also works in Bolton would have an especially difficult time.



Most residents commute to jobs outside of Bolton, and transportation costs are consequently high. The US Department of Housing and Urban Development estimates that an average family in Bolton spends 25% of their income on transportation every year.

GOAL: BOLTON WILL STRIVE TO INCREASE SAFETY AND AFFORDABILITY OF HOUSING FOR RESIDENTS

VI. Objective: Increase the number of safe, affordable housing opportunities in Bolton.

9. Undertake a survey to quantify the number of abandoned buildings in Bolton and adopt an ordinance regarding the definition and treatment of abandoned buildings.

MAKING THE CONNECTION

For more information on transportation and where Bolton residents work, see the prosperity section (hyperlink).

1 **VII. Objective: Make residents aware of funding sources for the rehabilitation of homes to**
2 **address safety issues and energy inefficiency.**

3 10. Educate residents about eligibility for homestead declarations.
4

Chapter 2: Prosperity

Utilities, Facilities and Services

Providing services to residents while maintaining a steady tax rate is one of the key challenges facing Bolton over the life of this plan, along with finding money in the town's budget to pay for road maintenance and ensuring that the town has enough capacity to complete actions required of it by the state and desired by residents.

Town Governance

Bolton has only four full time employees and a few part time and contracted employees, and relies heavily on volunteers to help the town run. A tally in 2016 showed that the town is assisted by at least 30 volunteers filling 50 positions every year, meaning that many volunteers serve in multiple roles. Bolton is governed by 7 boards and 2 committees, with a wide range of responsibilities. Ensuring that there are sufficient numbers of volunteers, and that those volunteers are well-supported, is key to the town's future.

GOAL: BOLTON WILL PLAN FOR, FINANCE AND PROVIDE AN EFFICIENT AND COST-EFFECTIVE SYSTEM OF PUBLIC FACILITIES AND SERVICES TO MEET EXISTING AND ANTICIPATED NEEDS, IN RELATION TO THE TOWN'S PLANNED RATE OF GROWTH AND DEVELOPMENT

I. Objective: Improve the capacity of Bolton's boards and committees to govern by increasing the number of volunteers involved in town governance and examining options for increased future staffing.

11. Action: Provide all volunteer committees with adequate administrative support, through staff or contracted services, particularly as needed to ensure that open meeting law requirements are met

12. Action: Evaluate short term and long term town staffing needs on an annual basis to ensure that there is sufficient support for town administration and for the administration of any new programs, taking into account operating budgets, program requirements, existing staffing, and the cost of contracted services

II. Objective: Consolidate, update and ensure public availability of town records to continue making information on town governance available to the public in accordance with state law.

13. Centralize all town records in the Bolton Town Office for safekeeping and public inspection, and allocate funds to continue to archive, digitize, index and update town land records, permit records, cemetery records and grand lists in formats suitable for online access and in-house use; and develop interactive town maps with the assistance of the Chittenden County Regional Planning Commission

Town Facilities and Services

The town of Bolton owns three buildings—the town office, the town garage and the fire station—and 469 acres of land, including Preston Pond and the town cemeteries (discussed in the People section – [hyperlink](#)). Bolton's town office and fire station were recently renovated to serve the town more effectively. The town garage is in need of renovations, including flood-proofing.

Bolton also owns \$XX,XXX worth of equipment. The town's capital improvement plan (CIP), currently in development, defines a maintenance and replacement schedule for the equipment.

Smilie School

As part of the school consolidation process, ownership of the Smilie School building was transferred to the Mount Mansfield Modified Union School District. If the District chooses to close the school in the future, the Town will have the first right of refusal to purchase the building for a nominal fee. The town would be required to use the property for "community and public purposes for a minimum of five years." If the town sold the property within five years, it would have to reimburse the district for improvements and renovations between the creation of the district and the sale to the town.

Should the Smilie School close, Bolton residents feel it should be used for a variety of things from creating a water park connecting to the Bolton Potholes to converting the building into handicap-accessible senior housing with an associated senior center. However, one thing was clear from everyone: if the building became available, finding a creative solution that allows for combined public and private use, encourages investment in the town and maintains its status as a community center is key.

III. Objective: Work to improve the layout and functionality of town buildings and property, and ensure that Smilie Memorial School remains available for town use.

14. Action: In the event that Smilie School is closed and ownership reverts to the town, develop a plan to ensure that the facility remains a community center, which may also be creatively developed to include compatible private uses (e.g., a local day care facility) that help offset facility operation and maintenance costs.

Town Budget and Capital Improvement Plan

Bolton faces a two-part challenge of a shrinking tax base and increasing demand for services and facilities. The vast majority of Bolton's development is residential—only 4% of the buildings on Bolton's grand list are commercial, and they make up only 11% of the assessed grand list value. In addition, almost 60% of the land in Bolton is conserved. The number and values of taxable acres have dropped from 2005-2015. Property taxes are already relatively high for Bolton residents: Bolton's homestead education tax rate is the second highest of all municipalities in

In Bolton, development, and thus the tax base, is constrained by conserved land, natural hazards and hazards like steep slopes and flood plains. To learn more about these constraints on development, see the land use and resiliency sections (hyperlink).

Chittenden County, and the municipal effective tax rate is the sixth highest. However, the average tax bill in Bolton is lower than neighboring towns, due to lower residential property values in Bolton. Bolton must develop creative solutions to provide the facilities and services that residents want while maintaining a sustainable rate of property taxation.

1

CAPITAL IMPROVEMENT PLAN

The Capital Improvement Committee has identified the following budgetary priorities for utilities and facilities in the Town. (Placeholder)

Town Garage:

1. Whatever the final conclusion on work needed for the Town Garage is

Fire Protection:

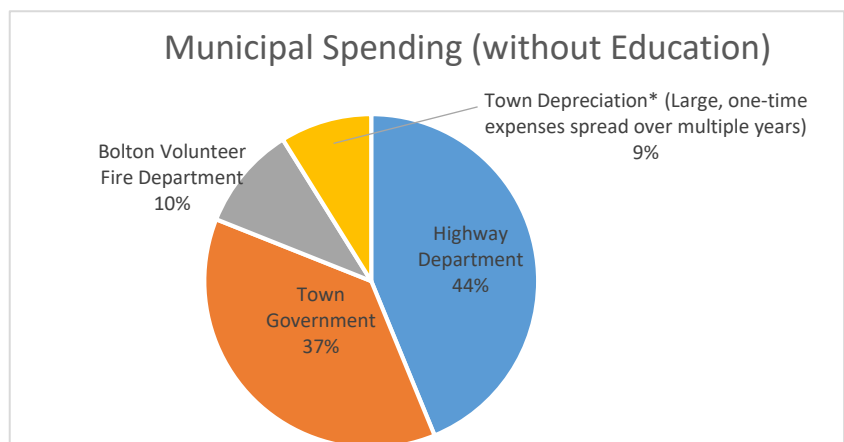
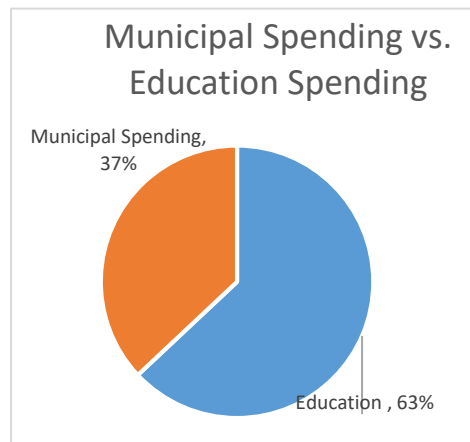
1. Trucks?

Highway Crew

1. Snow plow, maybe?

18

As Bolton's population continues to slowly grow, demand for services will increase. The passage of Vermont's Clean Water Act (Act 64) in 2015, which aims to reduce stormwater runoff from roads, will likely lead to higher costs for road maintenance. With these future and existing infrastructure challenges in mind, Bolton has recently begun to prepare [OR adopted on ?] a Capital Improvement Program (CIP) to responsibly plan for the town's future spending and saving. The CIP creates a capital budget, determines when equipment and facilities should be replaced or upgraded, determines how much the town should save in reserve funds, and how much it should spend on debt payments. This helps the town predict how much money will need to be spent every year, and puts policies in place to guide town spending. You can access the full CIP here (hyperlink).]



IV. Objective: Provide public services while maintaining a sustainable property tax rate, and seek revenue sources beyond property taxes.

15. Action: Conduct a cost of service analysis for each town department
16. Action: Coordinate with the Towns of Jericho and Underhill, and with Vermont's Congressional delegation, to gain federal Payment in Lieu of Taxes (PILOT) for the Ethan Allen Firing Range.
17. Action: Seek additional sources of revenue and funding, including grants, donations, fundraising, and service payments where allowed, to help offset department operating expenses, and to purchase needed equipment

Safety

~~Bolton is served by the municipal Bolton Volunteer Fire Department (BVFD), and all other safety services in town are through contracts and mutual aid agreements with fire and rescue groups in other towns. The BVFD faces a number of challenges, especially in retaining and training volunteers; access to water sources in some parts of Town; and lack of cost recovery. While the number of firefighters has decreased down to 8, and only 3 available during the day, recruitment is ongoing. The installation of~~

more dry hydrants and fire ponds may be necessary for fire protection, as well as continuing to ensure adequate fire truck accessibility in new developments, for the best interest of BVFD and property owners for homeowners' insurance. Additionally, finding ways to gain more revenue or reduce costs is key to the Department's future financial viability.

There are no local law enforcement or emergency medical services in Bolton. The town pays for contract services through outside organizations: Shelburne provides dispatch services, the Vermont State Police respond to 911 calls about violent crimes, and Richmond Rescue provides emergency medical services. The majority of Richmond Rescue's calls to Bolton originate from snow sport activities at Bolton Valley and accidents on I-89.

GOAL: BOLTON WILL SEEK TO IMPROVE PUBLIC SAFETY

~~V. Objective: Increase the Town's existing capacity to quickly and effectively warn the public about and respond to local emergencies, including accidents, crimes, fires and natural disasters.~~

~~18. Action: Annually update the town's Local Emergency Operations Plan (LEOP) by May 1st, for use in emergencies and disasters and to ensure the appointment of qualified individuals to serve in key public safety positions~~

~~19. Action: Provide emergency response, hazardous materials response and fire training as resources permit, particularly for appointed positions, select board members, volunteer firefighters and other emergency responders—including Incident Command System (ICS) training as required for local officials~~

~~20. Action: Actively recruit volunteer firefighters, and provide necessary training and equipment to ensure their safety~~

~~21. Action: Continue to fund Richmond Rescue for emergency medical services; but also require accountability with regard to how public funds are used~~

~~22. Action: Administer and enforce the town's traffic ordinance through contracted services with existing law enforcement agencies (state Police, County Sheriff) and/or through shared service agreements with neighboring municipalities.~~

~~23. Evaluate the need for additional police coverage, in relation to local crime rates, through contracted or administrative service agreements with existing law enforcement agencies.~~

~~24. Action: Provide information to local residents interested in establishing a Neighborhood Watch Program~~

~~25. Action: Identify locations with suitable access to surface water for the installation of additional dry hydrants in portions of town that currently do not have adequate supplies; and negotiate necessary access easements with willing landowners.~~

~~26. Action: Review the status of the Bolton Volunteer Fire Department and existing coverage, including ongoing department needs for equipment, volunteers and training, in relation to available municipal resources, including annual capital and operating budgets, reserve funds, and existing mutual aid agreements. Investigate options under existing or proposed aid or service agreements with neighboring communities to increase local coverage, and to share complementary equipment and services in the most cost-effective manner.~~

Water and Wastewater

Bolton does not have any town administered water or wastewater systems, but several privately-owned community systems provide water and wastewater service to neighborhoods such as Smilie School, Bolton Valley, Fernwood Manor and the Country Club Condominiums. While encroachment on the

water sources for the wells serving these communities is restricted from new development by Bolton's Land Use and Development Regulations, these regulations do not address existing water quality and supply concerns. While costly to the users, water supply concerns were addressed in Bolton Valley by drilling new wells. This lack of centralized water and wastewater is a major constraint on development, and community-scale water and wastewater systems may be necessary to support growth areas. However, these systems should remain in private ownership unless the development and long-term maintenance can be covered by municipal fees and tax revenue from the residents and businesses within development itself.

GOAL: BOLTON WILL SUPPORT THE PROVISION OF UTILITIES TO ENCOURAGE APPROPRIATE DEVELOPMENT, ECONOMIC GROWTH AND RESIDENT CONNECTIVITY.

VI.V. Objective: The Town of Bolton will not take over privately owned and operated water or wastewater systems.

VI.VI. Objective: The Town of Bolton supports the expansion or creation of privately owned and operated community water and wastewater systems that meet all relevant standards and regulations for water supply and wastewater systems, as referenced in the Bolton zoning regulations (Bolton Land Use and Development Regulations or BLUDRs), and meet at least one of the following criteria:

- **Systems that are designed and installed by private developers to serve private development, and where the cost of maintenance is borne by those homes and/or businesses served by it.**
- **Community systems that are established to serve a fire district, where the cost of maintenance is borne by the members of the fire district.**

27.18. Work with the Vermont Geological Survey to complete detailed groundwater mapping, to determine possible sources for future community water systems

Solid Waste

The Town is a member of the Chittenden Solid Waste District, which allows residents to drop off trash, hazardous waste, recycling and compost at designated transfer stations and drop off sites throughout Chittenden County, or to contract with private haulers who utilize these sites. Per Act 148, the Universal Recycling Law, the town must provide recycling bins anywhere that public trash cans are available. The Act also bans food scraps from landfills, effective in 2020.

VIII.VII. Objective: Continue to support the Chittenden Solid Waste District through dues and board membership, and comply with state regulations related to solid waste management.

Telecommunications

While all homes and businesses in Bolton have access to telephone and internet service, the speed of available internet, quality of cellular service and availability of television service varies greatly depend on location. The conversion of the Bolton Valley meteorological tower to a telecommunication facility,

combined with the telecommunications facility on Robbin's Mountain, may increase the quality and availability of cellular voice and data coverage.

The Public Service Board (PSB) jurisdiction over telecommunication towers expires in 2017. It is unclear whether this will be extended, or jurisdiction will return to municipalities. No matter the jurisdiction, Bolton should participate in these procedures to balance the need for improved communications with scenic and wildlife habitat protections.

While most of Bolton is served by 4/1 Mbps internet service, this is the low end of the new broadband definition set by the FCC (4/1Mbps to 25/3Mbps). However, portions of the Notch Road, Route 2 and Bolton Valley Road have very high speed connections of 100/100Mbps or faster, providing Bolton with a unique business and telecommuting advantage over other rural towns in Vermont.

IX.VIII. Objective: Restrict new or expanded wireless communications facilities to locations currently used for such purposes on Ricker Mountain and on Robbins Mountain, with the exception of sites which provide access to currently unserved or underserved areas; and require co-location where physically possible.

X.IX. Objective: Increase wired high-speed internet access on roads currently without broadband access

28-19. Action: Work with service providers to increase wired high-speed internet infrastructure on Bolton's currently underserved roads

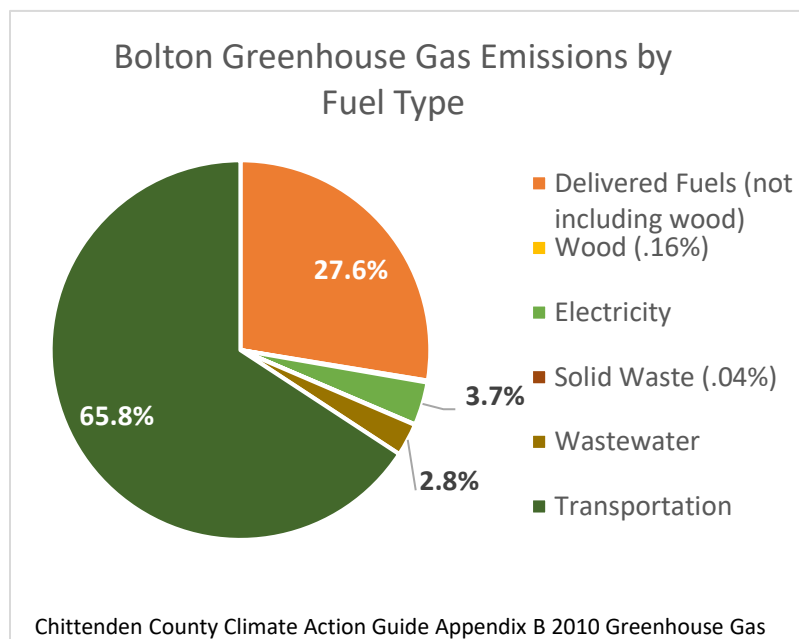
Energy

INTRO PARAGRAPH HERE

Energy Use

The vast majority of energy use in Vermont is from transportation. Throughout the State, the biggest energy use is transportation, mostly gasoline use by personal vehicles. Transportation is also the biggest contributor to greenhouse gases, and Bolton is no exception.

After transportation, home heating is the biggest energy use in Bolton. Most residents heat with fuel oil, delivered gas or wood; with the first two sources sometimes acting as backup for the latter.



Energy Efficiency

Electricity in Bolton is provided by Vermont Electric Coop (VEC) and Green Mountain Power, and a major VELCO transmission corridor runs through Bolton north of Route 2 and I-89. Energy usage in all sectors has decreased in Bolton since 2007. The State of Vermont's energy goals plans for a 1/3 reduction in total energy use by 2050.

Bolton has budgeted for energy audits of town-owned buildings, which will result in a list of possible improvements to save energy and money. Most equipment the Town owns is heavy machinery and trucks for road work and plowing. That equipment will not likely be replaced solely for the purpose of energy efficiency, but energy efficiency is increasing across all vehicle types. Consequently, when the equipment needs to be replaced, the Town will gain the efficiencies inherent to newer equipment. Increased energy efficiency represents the greatest cost savings and greenhouse gas emissions reduction potential for Bolton.

GOAL: BOLTON WILL WORK TO INCREASE ENERGY EFFICIENCY AND TO DECREASE THE CONSUMPTION OF FOSSIL FUELS

XI.X. Objective: Seek opportunities to decrease energy use in publicly-owned buildings and equipment.

29-20. Action: Partner with Efficiency Vermont to complete energy audits of town buildings and implement identified strategies

30-21. Action: Explore options for installing alternative energy systems to power municipal buildings

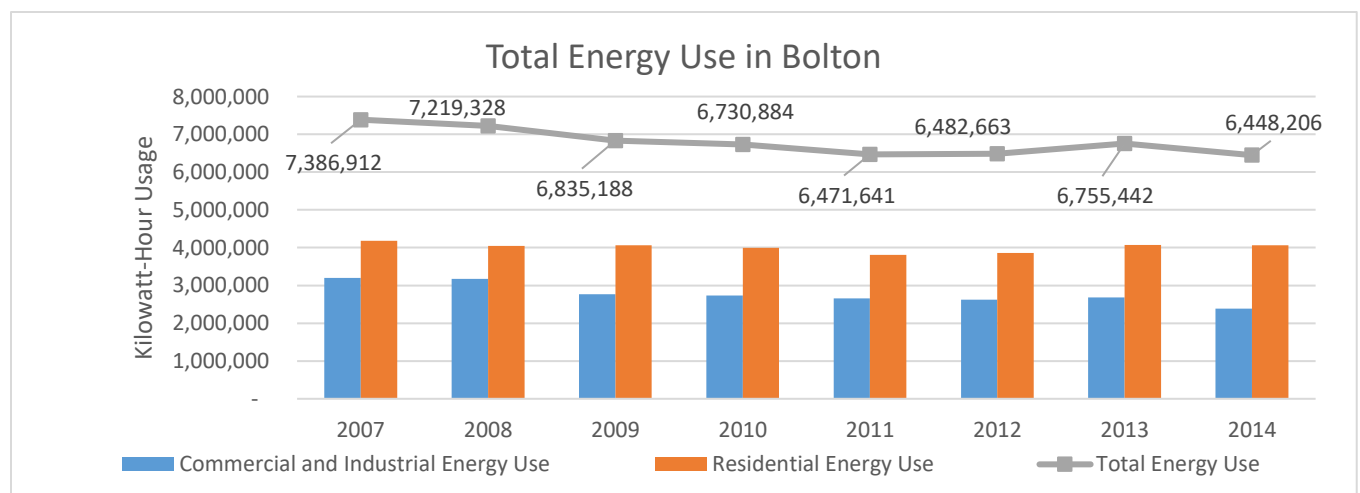
31-22. Recruit an Energy Coordinator for the Town

XII.XI. Objective: Encourage Bolton residents to explore ways to increase personal energy efficiency.

32-23. Educate Bolton residents about the energy siting plan developed for the town during the CCRPC Regional Energy Plan process, and ensure that residents know about the potential for individual solar or wind energy projects on their own land

33-24. Educate Bolton residents about opportunities to install clean-burning wood burning heating systems, such as incentives offered by the Renewable Energy Resource Center

Over time, energy use from all sources in Bolton has decreased as efficiency has increased.



Renewable Energy in Bolton

Net metered renewable energy generation systems allow homes and businesses to use small systems to produce energy for their own use, rather than for a utility. This process helps residents and business owners decrease their energy costs and reduce their greenhouse gas footprints. While not many currently exist in Bolton, it is encouraged throughout the town.

Bolton's landscape is largely forested and therefore its greatest renewal energy resource potential is in biomass. It is imperative to maintain Bolton's forests for biomass purposes, rather than clearing the forests to make way for solar fields and wind turbines. This harvesting must take the form of responsible forest management, as discussed in the natural resources section of this plan.

~~III~~.XII. Objective: Areas that have the potential to be used for forestry, such as parcels in the Current Use (Use Value Appraisal Program) should not be deforested for other renewable energy projects, as the town's greatest potential for renewable energy production is from biomass.

Renewable Energy Production		
	Number of Sites	Total Capacity
Ground Mounted Solar	3 residential	13.4 KW
Roof Mounted Solar Panels	9 residential	46.18 KW
Small Wind	1 commercial, 1 residential	101.8 KW*
*Reported capacity, but Bolton Valley Wind Turbine is currently not producing energy		
Source: Vermont Energy Dashboard, 2016		

Energy Generation Siting

Community engagement has shown that Bolton residents are generally divided on the building of large-scale alternative energy projects in the town. While Bolton's potential for large-scale solar generation is very limited due to topography, some ridgelines have potential for commercial wind.

The State of Vermont has a goal that in 2050, 90% of the energy used in the state will be from renewable sources. In 2016, Act 174 mandated the creation of Regional Energy Plans. As part of this planning, the Chittenden County Regional Planning Commission (CCRPC) will work with the town to determine the acreage within the town that has the potential for wind and solar generation, and will provide detailed data on the town's current energy use, as well as projections for the way to town could reach the 2050 goal of 90% renewable energy. Bolton could choose to use these results to adopt a local energy plan, which would give the town more influence over the siting of renewable energy resources within Bolton.

Until such time as the town decides to adopt a local energy plan, Bolton will support responsibly sited and developed renewable energy projects within its boundaries. However, Bolton also desires to protect and preserve its working lands, adopted natural resource protections and scenic rural views, which are important to its tourism economy and rural cultural aesthetic. Not all commercial or community scale solar or wind projects proposed can meet this standard. All energy development in Bolton must comply with the natural resources and land use policies discussed the Natural Resources and Land Use sections

of this plan, including the maps referenced in those sections. Projects that do not comply with these policies will not be considered “orderly development” and will not be supported by the Town of Bolton.

XIV.XIII. Objective: The development of energy generation facilities in Bolton shall meet the goals and objectives of this plan, as expressed in the Land Use section, the Natural Resources section and the Energy section, as well as the State of Vermont’s Rules on Sound from Wind Generation Facilities.

34.25. Action: Bolton will review any necessary revisions and may seek a Certificate of Energy Compliance from CCRPC or the Public Service Board before this plan expires in 2 24

Economy

The largest employer in Bolton, and the cornerstone of the town's economy, is the Bolton Valley Resort. The Town's economic growth depends on ensuring the success of the resort as a four-season enterprise that is able to capitalize on Bolton's numerous recreational opportunities and supporting home businesses and local enterprises.

Working Lands

When Bolton was founded, Bolton's economy was almost completely dependent on forestry and farming. While agriculture and silviculture are still part of Bolton's economy, these businesses are not as prevalent. 11,142 acres of land are currently used for forest management, and 4 farms remain in Bolton. Most of Bolton's prime agricultural soil is located in the Winooski River Valley, and it is unlikely to face future development pressures: most of it is owned by the State of Vermont and/or located in the floodplain. The protection of farm and forest lands is important both for Bolton's rural character and for local economic opportunity.

See the Natural Resources section for a full discussion of Bolton's policies towards specific resources.

GOAL: BOLTON WILL SUPPORT ECONOMIC DEVELOPMENT THAT IS COMPATIBLE WITH ITS SMALL TOWN, RURAL NATURE

~~XV~~.XIV. Objective: Support forestry and farming in Bolton through resident education on opportunities for conservation and through growth pattern that minimizes forest and farmland fragmentation.

~~35~~.26. Promote participation in the Current Use (Use Value Appraisal) program for those who own farm or forest parcels

~~XVI~~.XV. Objective: Support the creation and growth of local businesses, including home-based businesses, that meet the goals of the Town Plan.

~~36~~.27. Complete an inventory of all businesses in Bolton and make the list of interested businesses available on the town website

Economic Conditions in Bolton

Unemployment in Bolton is very low, and though it rose from 1.2% to 2.3% from 1990-2014, it remains lower than the Chittenden County and Vermont unemployment rates. The American Community Survey reports that the median income in Bolton is higher than the Chittenden County average. However, the average wages paid for jobs located in Bolton are significantly lower than the county average (Bolton residents who are self-employed are not included in this statistic). Therefore, the Town supports the expansion of good-paying jobs within Bolton, and as well as varied and reliable transportation for workers who commute to jobs outside of Bolton.

Household Income, 2014		
	Bolton	Chittenden County
Median Household Income	\$75,568	\$63,243
Mean Household Income	\$83,278	\$83,432

Source: American Community Survey 2009-2014 Estimates

Average wages over time, unadjusted						
	1990	1995	2000	2005	2010	2014
Bolton	\$13,679	\$12,353	\$16,604	\$26,846	\$24,358	\$25,433
Chittenden County	\$24,044	\$27,245	\$34,327	\$39,766	\$46,213	\$49,663
Average wages over time, adjusted to 2016 dollars						
	1990	1995	2000	2005	2010	2014
Bolton	\$24,796	\$19,204	\$22,844	\$32,567	\$26,465	\$25,452
Chittenden County	\$43,584	\$42,354	\$47,228	\$48,240	\$50,210	\$49,701
Source: Vermont Department of Labor Economic and Labor Market Information						

Objective: Bolton's Economic Resources Committee will work to develop strategies for economic development in the Town.

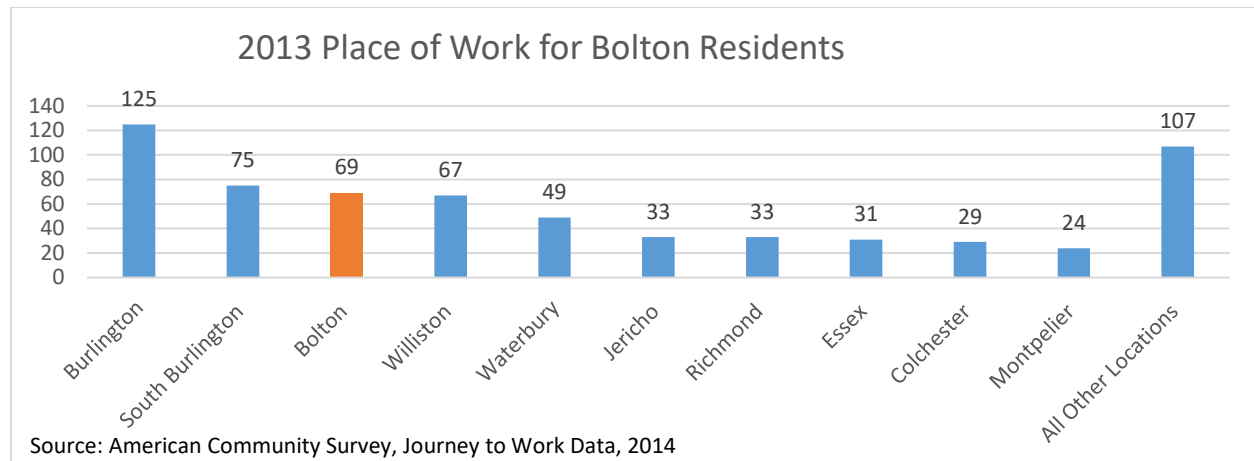
Where Residents Work

Over 80% of Bolton's workforce commutes to work in other municipalities, most in the urban core of Chittenden County. This leads to high transportation costs for residents, as Bolton's only public transportation options are the Park and Rides in Richmond and Waterbury, where residents can take buses to Montpelier and Burlington.

See the Transportation section for more details on improving options for public transportation and carpooling.

The remaining 20% of the workforce works at one of the more than 60 businesses that can be found in Bolton. Most of these businesses are based in the homes of residents. The number of home-based businesses in a variety of sectors is expanding throughout Bolton. High-speed, reliable internet and strong telecommunications access is essential for residents who own their own businesses, or who have the opportunity to work from home. Improving internet and cellular service will enable faster connections between people around Vermont and around the world.

See the Utilities and Facilities section for more details on internet and phone service.



Objective: Support the creation and growth of local businesses, including home-based businesses, that meet the goals of the Town Plan.

Recreation and the Economy

Recreational opportunities abound in Bolton. Bolton's many visitors may represent an opportunity for businesses that cater to outdoor recreationists, visitors and residents alike, but very few such businesses exist currently.

See the Recreation section for more information on recreation in Bolton

Founded in 1966, Bolton Valley Resort is a prime example of a recreation business that leverages Bolton's natural resources. In the past decades, the Resort has faced many challenges, including warmer winter weather and consequently limited natural snow and snowmaking ability. In response to these challenges, the Resort hopes to broaden its focus to become a four-season attraction, with recreation activities that take advantage of Bolton's natural wonders during spring, summer and fall, in addition to winter. The Resort's ability to remain viable and to successfully transition to a four-season establishment is key to the town's economic future. Many residents work at the resort, especially during the winter. The Town and the Resort must work together to ensure that the Resort's future development meets the goals of the Town Plan. The future success of the Resort is key to the economic future of the Town.

~~XVII.~~XVI. Objective: Encourage Bolton Valley Resort to become a successful four-season resort able to thrive during an era of warmer weather and less snow.

~~37-28.~~ Action: The Town of Bolton and Bolton Valley Resort will work together to improve the relationship between the two entities.

~~XVIII.~~XVII. Objective: Encourage the establishment and continuation of recreational businesses and events that utilize and support the town's scenic beauty and recreational opportunities and contribute to the town's attractiveness as a recreational destination.

Transportation

The Town of Bolton maintains only 20.5 miles of road, but 44% of Bolton's municipal spending goes towards road maintenance. Maintaining a safe and reliable road network and complying with the new Municipal Roads General Permit will be the Town's biggest challenges during the life of this plan.

~~XIX.XVIII.~~ **Objective: Continue the Town of Bolton's long-standing policy to not take over private roads.**

Road Network Resilience

Because of Bolton's mountainous terrain, many local roads have very steep grades and are prone to erosion. Therefore, the issue of stormwater management and erosion control on the roads is not only the biggest concern facing Bolton's road network, but one of the biggest challenges facing the town. During periods of heavy rain and spring melting, road, culvert and ditch washout is a common and expensive problem. These occurrences are increasingly frequent as severe storms become more common, and also during "mud season," when heavy rains and snow melt in the spring create large areas of mud on dirt roads. Road network improvements have been identified, and are included in the 2016 CIP. However, ongoing road network maintenance and the town's ability to budget for it are key concerns for the town. The Town of Bolton will continue its long-standing policy to not take over private roads. Bolton's Road Crew does not have the capacity to care for more roads, and the town's budget cannot accommodate additional road maintenance costs.

CAPITAL IMPROVEMENT PLAN (CIP) PRIORITIES: TRANSPORTATION

Based on information collected from road and culvert inventories, highway foreman expertise and other sources (what sources?), the Capital Improvement Committee has identified the following priorities for transportation infrastructure improvements in the Town. **[This is a placeholder!]**

Bridges:

2. Relevant bridge priorities for repair or replacement

Culverts

2. The culvert that needs to be fixed first
3. The one that needs to be fixed second

Road Maintenance

1. A road that needs to be rebuilt?
2. Maybe something erosion related

GOAL: BOLTON WILL IMPROVE THE RESILIENCE AND MAINTAIN THE QUALITY OF ITS ROAD NETWORK THROUGH COST-EFFECTIVE METHODS THAT ARE APPROPRIATE FOR THE TOWN'S STEEP TOPOGRAPHY

~~XX.XIX.~~ **Objective: The Bolton Road Crew will continue to maintain the roads for the safety of all users, especially during the winter months.**

~~38.29.~~ **Action:** Investigate ways to increase the Highway Department's capacity while maintaining a healthy budget, especially the Department's capacity to comply with the Municipal Roads General Permit and related processes as required by the Lake Champlain TMDL. This process will decrease erosion, improve the drainage conditions of town highways, and mitigate against areas prone to erosion and water pollution. By necessity, the process must also explore ways to explore strategies to develop a healthy budget for Road Crew spending,

such as creating a culvert reserve fund, hiring more employees to reduce overtime hours or contracting with private companies.

~~39-30.~~ Action: Work with VTrans and CCRPC to develop management practices and road and bridge standards for mountainous terrain and adopt standards that will lead to an increase in the Town's ERAF match rate after disasters

Municipal Roads General Permit

The Vermont Clean Water Act (Act 64) was signed into law in 2015, and was intended to address requirements from the Lake Champlain Total Maximum Daily Load (TMDL). The TMDL is a requirement of the EPA, which has determined that Lake Champlain has an unacceptably high phosphorous level. Road erosion is a source of phosphorous and other contaminants. Consequently, Act 64 established a Municipal Roads General Permit. All Vermont municipalities will be required to comply with the permit, which will establish standards for road maintenance that will reduce road erosion. The permit is still in development as of the writing of this plan and will be released in 2019. However, it is anticipated to require inventories of road erosion on all sections of road that drain into bodies of water, and a schedule to bring non-complying segments up to standards over 5 years. To receive a permit, the town will also have to pay a \$400 application fee every five years, and a \$2,000 annual operating fee. Complying with the regulations of this permit will present a significant financial challenge to the town.

~~XXI-XX.~~ **Objective: Update Bolton's Capital Improvement Plan, as adopted in 2017(?), as necessary, and use it to provide the basis for capital expenditures on transportation infrastructure.**

~~40-31.~~ Action: The Capital Plan Committee will maintain a current Capital Improvement Plan by revising the document as appropriate

~~XXII-XXI.~~ **Objective: Develop a healthy budget for the Bolton Road Crew, ensuring an adequate level of spending for necessary road maintenance and for compliance with changing state regulations**

Road Standards

The 2013 Vermont Town Road and Bridge Standards are intended to prevent damage to roads and bridges, but Bolton has not adopted them. If the Town adopted the state's most recent standards, the Vermont Emergency Relief and Assistance Fund (ERAF) would pay for a higher percentage of the cost of a disaster. However, due to Bolton's steep topography, the cost of maintaining the roads to the 2013 Vermont Town Road and Bridge Standards would be higher than the cost of repairing the roads after washouts, regardless of the percentage paid by ERAF. Adopting a version of the standards appropriate for Bolton's topography would increase the resiliency of the town's road network, and would enable Bolton to receive more state funding to recover from disasters.

Alternative Transportation and Complete Streets

While there are many trails in Bolton, the town has no sidewalks or bike paths. This forces pedestrians and bicyclists onto narrow and steep roads with minimal shoulders, which often have sharp curves creating blind turns. In fact, several key Vermont trails, including the Cross Vermont bicycle trail and the Long Trail, run along Bolton's roads. Because most Bolton residents work outside of the Town, only a small number of residents use non-motorized transportation to get to work. However, Bolton's residents regularly walk and bike along the roads for recreation. Ensuring that roads in Bolton are safe for all users, including drivers, walkers, bicyclists and equestrians, is key. Increasing the safety of crossings for pedestrians and other non-motorized vehicle travelers across major roads and the railroad tracks is important, as is decreasing speeding.

BOLTON'S TRAIL NETWORK

To learn more about Bolton's trail network, see the Recreation section ([link](#)).

Getting Around in Bolton

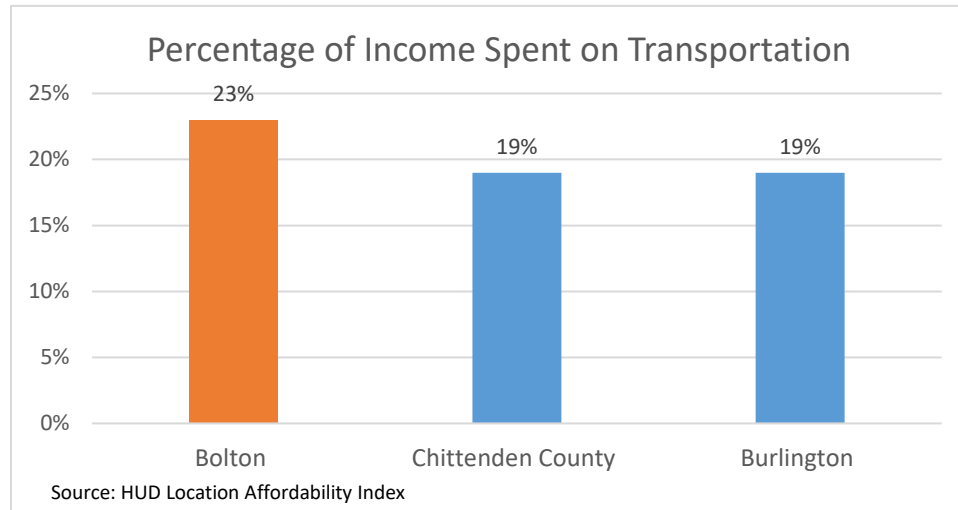
Residents of Bolton are by necessity very car dependent, given the town's rural location. The American Community Survey estimates that over 87% of workers living in Bolton drove 10 or more miles to get to

Commuting Distances for Workers					19 work,
	Bolton Residents		Chittenden County Residents		
	Workers	Percentage	Workers	Percentage	
Less than 10 miles	65	12.40%	54759	55.00%	
10 to 24 miles	435	82.70%	22139	22.20%	
25 to 50 miles	26	4.90%	12481	12.50%	
Greater than 50 miles	0	0.00%	10244	10.30%	

Source: US Census, American Community Survey OnTheMap 2014

compared to 45% of Chittenden County residents. A median income household living in Bolton is estimated to drive 31,360 miles annually, compared to 26,368 miles annually for a median income household living in Chittenden County, according to the US Department of Housing and Urban Development.

Almost all Bolton residents drive alone to work, which contributes to high transportation costs and high energy use for driving. Residents have very limited access to public transportation. The nearest park and rides are located in Richmond and Waterbury, and offer service only to Burlington and Montpelier. Past attempts to build a park and ride in Bolton have been unsuccessful both because of Select Board opposition and because of a lack of interest on the part of bus operators, but the idea should be re-examined.



GOAL: BOLTON WILL INCREASE THE SAFETY OF ITS ROADS FOR ALL USERS

XXIII.XXII. Objective: Take into account the safety of all users, including motorists, bicyclists, public transportation users, and pedestrians of all ages and abilities, when designing and scheduling needed highway improvements.

XXIV.XXIII. Objective: Increase car-sharing and ride-sharing opportunities and access to existing public transit services.

41:32. Establish a municipal Park-and-Ride in Bolton

42:33. Educate residents about Go! Vermont and the carpool and vanpool opportunities coordinated by that entity

43:34. Advocate for the replacement of the Notch Road tunnel (Culvert 51-3) with a bridge to increase pedestrian and driver safety

44:35. Review current speed limits on dirt roads and complete new speed studies if necessary

45:36. Identify road locations where guard rails might be needed

46:37. Develop a Complete Streets Policy

47:38. Establish and/or improve pedestrian crossings where needed, especially along Route 2

48:39. Examine the feasibility of developing an off-road path along Route 2, or advocate for the state to widen shoulders or add an off-road path during future construction

Railroad

Although railroad tracks run along Route 2 throughout the length of Bolton, the nearest passenger rail station is in Waterbury. The railroad tracks also create a barrier between most of Bolton and the eastern bank of the Winooski River. Only one legal pedestrian crossing to the river exists along Route 2, where the Long Trail crosses the tracks. This prevents access to one of the town's prime natural resources.

CHAPTER 3: PLACE

Resilience and Public Safety

Because Bolton encompasses the Winooski River Valley and the steep mountains on either side of it, the town faces multiple natural hazards, most notably flooding, stormwater runoff and fluvial erosion. As Vermont's climate changes, it is predicted that heavy rainstorms will become more frequent, increasing the risk of associated hazards. Additionally, landslides, winter storms, power outages and man-made hazards such as hazardous material storage and transport are risks in Bolton.

Related Documents

The hazards discussed below are described in greater detail in the Bolton All Hazards Mitigation Plan (AHMP). The Bolton All Hazards Mitigation Plan (AHMP) also identifies a number of strategies for the town to take to mitigation against hazards and increase resilience (see Section 5.6, link). Additionally, the Bolton Local Emergency Operations Plan (LEOP)(link) outlines the procedures that would be taken by the Town in the case of an emergency, such as opening an emergency shelter. It also identifies key contacts and establishes a chain of command. *The Bolton All Hazards Mitigation Plan, as adopted by the Select Board every 5 years, and Local Emergency Operation Plan, as adopted by the Select Board annually, are both incorporated by reference into this plan.*

CLIMATE CHANGE AND RESILIENCE

Weather changes due to climate change will affect more than flooding and erosion. Milder winters with less snow coverage and more ice are predicted, which will affect businesses that depend on snow sports. **See the Economy section for a discussion of economic resilience.**

A longer growing season and more extensive heat waves and droughts in the summer are also predicted. This will affect the area's flora and fauna. Habitats have begun to migrate and invasive species are increasingly problematic. See the **Natural Resources section for a discussion of strategies to increase the resilience of Bolton's plants and wildlife.**

GOAL: BOLTON WILL BE A RESILIENT COMMUNITY THAT EFFECTIVELY PREPARES FOR HAZARDS

- I. **Objective: Work with CCRPC to review and implement Bolton's plans to prepare for emergencies and lessen the damage caused by them (respectively, the Local Emergency Operations Plan and the All Hazards Mitigation Plan).**
 49. Improve communications with the Department of Environmental Conservation and other relevant parties to ensure that the Town receives up to date and accurate information during a flood event
 50. Continue to seek funding for the elevation or flood-proofing of structures in the floodplain, including the Bolton Town Garage
 51. Undertake a project to stabilize the banks of Joiner Brook, Duck Brook and Gleason Brook, to prevent damage existing homes and septic systems, and prevent damage to Smilie School from Joiner Brook

1 Flooding

2 The Winooski River flows through Bolton near Interstate 89 and Route 2, and the land on either side of it
3 is a floodplain. The Federal Emergency Management Agency (FEMA) has identified two “levels” of
4 floodplain in Bolton, the Special Flood Hazard Area and the .2% Annual Chance Flood Hazard Area. In the
5 Special Flood Hazard Area, there is a 1% chance every year that the area might be flooded. The hazard in
6 these areas is inundation flooding, in which water rises above its banks and spills across the floodplain.

7 Bolton faces an additional risk of flooding because of the upstream damming of the Winooski River and
8 its tributaries. The Waterbury Dam impounds the Little River to create the Waterbury Reservoir. The
9 Little River flows into the Winooski River two miles east of Bolton. In addition, the Bolton Falls Dam in
10 Waterbury impounds the Winooski near the Bolton town line. While these dams provide some measure
11 of flood control, there is a possibility of dam failure or the need for the dam to be released during a
12 major flood event. In the event of a dam failure, most of Bolton’s lowland areas land around Route 2
13 would be inundated within 2.5 hours.

14 Bolton is protected against damage from flooding in several ways. The Town joined the National Flood
15 Insurance Program in 1981. NFIP provides flood insurance that building owners in participating
16 communities may purchase. However, the high cost of flood insurance may be prohibitive for some
17 households. Any buildings in the SFHA with a mortgage must have flood insurance. To participate in the
18 NFIP, Bolton must ensure that new development in the town is safe from flooding. Bolton does this
19 through the Bolton Land Use and Development Regulations, which limit development in all designated
20 flood hazard areas (see right). Bolton has recently successfully pursued a Hazard Mitigation Planning
21 Grant to elevate a home in the floodplain above the base flood elevation, and may pursue other similar
22 projects in the future.

23 II. Objective: Seek to support property owners in the floodplain as they seek to develop 24 properties in a flood resilient manner.

- 25 52. Action: Host meetings with relevant State of Vermont and FEMA officials to learn about best
26 practices for managing existing structures in the SFHA and best practices for new
27 development as allowed by the Town’s regulations
- 28 53. Action: Support applications for elevation of existing buildings and other building-specific
29 flood mitigation actions in the flood plain

30 Fluvial Erosion and River Corridors

31 When flooding occurs in a floodplain, water rises, submerges the area, and dissipates. However, most of
32 the flood damage in Vermont is caused by **fluvial erosion**. Fluvial erosion occurs when the flow of
33 streams and rivers erodes sediment from segments of their banks and deposits it elsewhere. While this
34 is a natural process that occurs in all rivers, it becomes a hazard when the erosion undermines banks,
35 threatens buildings and washes away infrastructure. **River corridors** encompass the area next to a
36 stream or river that is prone to fluvial erosion, as well as an additional buffer of 50 feet (see Map 6). In
37 2009, a River Corridor Plan was prepared for Joiner Brook in 2009 (link). For rivers and streams that do
38 not have mapped river corridors, the river corridor is assumed to be 50 feet from the top of the stream
39 bank. Roads, bridges, culverts and even homes in Bolton are at risk of damage from flooding and erosion
40 due to their location in river corridors.

Bolton's zoning regulations (the Bolton Land Use and Development Regulations or BLUDRs) offer some protection to river corridors through various setbacks from streams, rivers and other bodies of water. However, these setbacks do not include all river corridors as mapped by the State of Vermont Agency of Natural Resources.

Stormwater Runoff, Erosion and Landslides

Because of its many steep slopes, Bolton often experiences erosion of roads, driveways and hillsides during rain storms (see Map 10). As discussed in the Transportation section, erosion of transportation infrastructure such as roads and culverts is a serious concern for Bolton. The Transportation section also identifies several strategies for lessening damage from stormwater runoff, including applying for a Municipal Roads General Permit in 2019 (link).

Bolton's Land Use and Development Regulations also protect against stormwater runoff by limiting development on land with steep slopes with a grade of 15% or higher and requiring stormwater impacts to be minimized. Almost all development is prohibited on very steep slopes with a grade of 25% or higher. Finally, development is limited in areas above 1,500' in elevation, which protects upland forests that are key to absorbing and slowing storm water.

MAKING THE CONNECTION

For more information on steep slopes and road and driveway erosion, see the Transportation Section (link).

III. Objective: Decrease damage caused by stormwater runoff, including bank erosion and risk to buildings, facilities or infrastructure.

54. Action: Partner with the Vermont Geological Survey to finish inventory of landslide hazard areas throughout town to ensure that clear information on landslide risk is available to property owners, residents and town officials
55. Action: Undertake a hydrological/capacity analysis of local watersheds and determine whether new stream geomorphic assessments should be conducted on Gleason Brook and Mill Brook

IV. Objective: The Town of Bolton will develop in a way that does not increase the community's risk from natural and man-made hazards, as described in the Resilience section of this plan. The zoning regulations (Bolton Land Use and Development Regulations or BLUDRs) will be revised as necessary to meet this policy.

Other Hazards

Bolton's All Hazards Mitigation Plan also identifies a number of other hazards that may affect the Town. Most significantly, the AHMP identifies winter storms, power loss, telecommunications failures, hazardous materials incidents and major transportation incidents as hazards for which the town must be prepared. These hazards are largely beyond the control of the Town to prevent, and so the Town's role is preparing to keep residents safe during events and ensuring that the town is able to respond to damage after an event. Winter storms are simply a fact of life in Vermont, and may cause other hazards such as power loss and telecommunications failures. With Interstate 89 and Route 2 running through Bolton, as well as many miles of Town roads, major transportation incidents such as car accidents are unfortunately common. One area of particular concern is the railroad tracks that run through Bolton. Railroad cars may be carrying hazardous materials, and local emergency response teams such as the Bolton Volunteer Fire Department must be prepared to respond to any spills. The response to such a spill is discussed in the Bolton Local Emergency Operations Plan (LEOP).

What's the Hazard?	Where Does It Occur?	How is Bolton Increasing Resilience?
Flooding	Floodplain (See Map 6)	<ul style="list-style-type: none"> Floodplain Regulations National Flood Insurance Program Bolton All Hazards Mitigation Plan
Fluvial Erosion	River Corridors (See Map 6)	<ul style="list-style-type: none"> Stream and River Setbacks River Corridor Plans Bolton All Hazards Mitigation Plan
Stormwater Runoff and Landslides	Roads, driveways, hillsides and other areas	<ul style="list-style-type: none"> Steep Slope Development Regulation Municipal Roads General Permit Bolton All Hazards Mitigation Plan Landslide Inventory
Snowstorms, Power Outages and Telecommunications Failures (caused by weather or otherwise)	Everywhere	<ul style="list-style-type: none"> Bolton All Hazards Mitigation Plan Local Emergency Operations Plan
Transportation Incidents	Roads throughout town, most significantly I-89	<ul style="list-style-type: none"> Bolton All Hazards Mitigation Plan Local Emergency Operations Plan Traffic Ordinance
Hazardous Materials Incident	Transportation corridors and storage areas, such as AmeriGas facility on Route 2 and the Ethan Allen Firing Range	<ul style="list-style-type: none"> Bolton All Hazards Mitigation Plan Local Emergency Operations Plan

Public Safety

Bolton is served by the municipal Bolton Volunteer Fire Department (BVFD), and all other safety services in town are through contracts and mutual aid agreements with fire and rescue groups in other towns. The BVFD faces a number of challenges, especially in retaining and training volunteers; access to water sources in some parts of Town; and lack of cost recovery. While the number of firefighters has decreased down to 8, and only 3 available during the day, recruitment is ongoing. The installation of more dry hydrants and fire ponds may be necessary for fire protection, as well as continuing to ensure adequate fire truck accessibility in new developments, for the best interest of BVFD and property owners for homeowners' insurance. Additionally, finding ways to gain more revenue or reduce costs is key to the Department's future financial viability.

There are no local law enforcement or emergency medical services in Bolton. The town pays for contract services through outside organizations: Shelburne provides dispatch services, the Vermont State Police

respond to 911 calls about violent crimes, and Richmond Rescue provides emergency medical services. The majority of Richmond Rescue's calls to Bolton originate from snow sport activities at Bolton Valley and accidents on I-89.

GOAL: BOLTON'S RESIDENTS AND PROPERTIES WILL BE SAFE DURING EMERGENCIES, AND THE TOWN WILL BE PREPARED TO ADDRESS ALL LIKELY HAZARDS

XXIV. Objective: Increase the Town's existing capacity to quickly and effectively warn the public about and respond to local emergencies, including accidents, crimes, fires and natural disasters.

40. Action: Annually update the town's Local Emergency Operations Plan (LEOP) by May 1st, for use in emergencies and disasters and to ensure the appointment of qualified individuals to serve in key public safety positions

41. Action: Provide emergency response, hazardous materials response and fire training as resources permit, particularly for appointed positions, select board members, volunteer firefighters and other emergency responders – including Incident Command System (ICS) training as required for local officials

42. Action: Actively recruit volunteer firefighters, and provide necessary training and equipment to ensure their safety

43. Action: Continue to fund Richmond Rescue for emergency medical services; but also require accountability with regard to how public funds are used

44. Action: Administer and enforce the town's traffic ordinance through contracted services with existing law enforcement agencies (state Police, County Sheriff) and/or through shared service agreements with neighboring municipalities.

45. Evaluate the need for additional police coverage, in relation to local crime rates, through contracted or administrative service agreements with existing law enforcement agencies.

46. Action: Provide information to local residents interested in establishing a Neighborhood Watch Program

47. Action: Identify locations with suitable access to surface water for the installation of additional dry hydrants in portions of town that currently do not have adequate supplies; and negotiate necessary access easements with willing landowners.

48. Action: Review the status of the Bolton Volunteer Fire Department and existing coverage, including ongoing department needs for equipment, volunteers and training, in relation to available municipal resources, including annual capital and operating budgets, reserve funds, and existing mutual aid agreements. Investigate options under existing or proposed aid or service agreements with neighboring communities to increase local coverage, and to share complementary equipment and services in the most cost-effective manner.

GOAL: BOLTON'S RESIDENTS AND PROPERTIES WILL BE SAFE DURING EMERGENCIES, AND THE TOWN WILL BE PREPARED TO ADDRESS ALL LIKELY HAZARDS

V. Objective: Increase the town's existing capacity to quickly and effectively warn the public about and respond to local emergencies, including accidents, crimes, fires and natural disasters.

49. Action: Explore the feasibility of creating a Community Resilience Organization (CRO) for Bolton, to develop a town-wide notification and warning system in the case of emergencies, plan to reposition equipment during a flood event to ensure it is available in all parts of Town, and develop neighborhood-specific emergency plans.

50. Action: Encourage residents to sign up for VT Alert notifications about emergencies

Recreation

Preserving Bolton's recreational resources is critical to preserving the town's identity and character. The town must investigate strategies for managing Bolton's myriad recreational resources in a way that creates a balance between recreation in the town and preserving Bolton's fragile natural resources and peaceful, rural way of life.

During community engagement conducted in the fall of 2015, 62% of Bolton residents stated that one of the reason they live in Bolton is **"I like being close to outdoor recreation like hiking and skiing."**

Trails and Snow Sports

The Town's topography, proximity to urban areas and vast tracts of conserved land, including parts of Camel's Hump State Park and Mount Mansfield State Forest, make it a mecca for recreation. Bolton is home to an extensive network of hiking, mountain biking, road biking and snowmobiling trails that extend into neighboring towns. In many cases, these trails are part of larger regional or state-wide systems. 16.5 miles of the Long Trail travels through Bolton. In 2015, relocation of the trail was completed. It now runs along Stimson Mountain and the south bank of the Winooski, and a striking footbridge has been added across the Winooski River. A parking lot near the bridge now allows hikers to park near Route 2 and pick up the trail.

The Green Mountain Club also maintains several hiking trails in the town, most significantly the Long Trail. The Preston Pond Conservation Area has four miles of trails, including a trail up to Libby's Look. Almost four miles of the Cross Vermont Trail runs through Bolton on Duxbury Road. The Cross Vermont Trail Association maintains signs and markers along the route, as well as informational materials for users.

"Skiing, hiking, climbing, swimming, hurray!"

-Bolton resident, asked to describe Bolton in 5 words or less

The Vermont Association of Snow Travelers (VAST) works with private landowners to establish snowmobile trails. The Catamount Trail is 13.6 miles of trail, mostly shared with other trails systems, identified for skiing and snowshoeing. The Catamount Trail's route through Bolton includes a connection between the Bolton Valley Nordic Center and the Trapp Family Lodge in Stowe. The State of Vermont also owns the Nordic Trails near Bolton Valley Resort, which is used for cross-country skiing and hiking. In the winter, the Resort grooms the trails and sells tickets to the area.

Bolton Valley Resort is a privately-owned ski area located on Ricker Mountain, with over 300 acres for skiing and snowboarding including 71 trails and 3 terrain parks. In the summer, hiking, mountain biking and a ropes course are available at the resort. The resort is current working to become a viable four-season resort (see the "Economy" section for more detail [hyperlink](#)).

Other Recreation

Climbing

Bolton offers some of the only rock and ice climbing in Chittenden County. Key areas include the Bolton Quarry, which boasts 30 acres of climbing area, the cliffs at the base of the Bolton Notch Road, and the cliffs throughout West Bolton. Most of the prime rock climbing territory has been purchased by the Climbing Resource Access Group (CRAAG-VT), which owns and maintains the property.

“Winter snow globe, summer paradise.”

-Bolton resident, asked to describe Bolton in 5 words or less

Water Sports

The Friends of the Winooski publicizes a paddling trail that includes two sections with a terminus in Bolton. The Vermont Agency of Natural Resources maintains the Bolton Canoe Access on the Winooski River and is in the process of improving it. Fishing opportunities abound in the Winooski River and the many brooks and streams in Bolton. The State of Vermont maintains a fishing access area on Mill Brook, accessed from Nashville Road. Finally, the Bolton Potholes are a popular, but dangerous, swimming hole. Accidents and injuries happen regularly at the site, and several fatalities have occurred.

Hunting

Hunters and trappers can find a wide variety of game including deer, moose, bear, smaller mammals, turkey and a variety of other birds.

Family Recreation

Bolton’s only playground is located at Smilie School. However, many children in Bolton enjoy participating in the rich variety of recreational resources available in Bolton with their families. Wheeler Field in West Bolton also serves as an informal recreational space for all ages, hosting a ball field and open space. Informal indoor recreational sports also take place in Smilie School. The future of the area is unclear as of the writing of this plan. Bolton’s children also participate in a variety of recreational activities, including sports teams, Girl Scouts and Boy Scouts, in neighboring towns.

GOAL: MAINTAIN, PROTECT AND IMPROVE BOLTON'S RECREATIONAL AREAS AND RESOURCES TO ENSURE CONTINUED PUBLIC ACCESS AND SUSTAINABLE USE BY BOLTON RESIDENTS AND VISITORS.

- I. **Objective: Promote recreational, social and continuing education activities available to residents.**
- II. **Objective: Increase the variety of active recreation opportunities available in Bolton by concentrating future town land purchases on targeted small lots to be used as neighborhood community gathering areas or parks.**

59. Action: Investigate possibilities for establishing neighborhood parks in Bolton

Recreation Concerns

Those who recreate in Bolton, residents and visitors alike, sometimes come into conflict with one another about appropriate uses of the land. Because recreational opportunities abound in the town, disagreements arise about the appropriate use of the land at different times. One key area of conflict is the Bolton Potholes, where the behaviors and noise of visitors, including illegal parking, littering and drug use, can be disruptive to nearby residents. Conflict can also occur during hunting season—the same areas of town are ideal for both hunting and rock climbing and hiking. Hunters wish to hunt in areas with small numbers of people, to prevent game from being driven away. Town residents are concerned with the future of recreation in the town, and say that the town must ensure that recreation in Bolton does not compromise the safety and well-being of town residents, visitors, domestic animals or wildlife, or infringe on Bolton residents' property rights or privacy.

Objective: Cooperate with key stakeholders such as Bolton Valley Resort, the Catamount Trail Association, the Climbing Access Resource Group, Cross Vermont Trail Association, the Green Mountain Club, Smilie School, the Vermont Association of Snow Travelers, and local landowners to ensure that Bolton's recreational areas are protected, improved, sustainably managed and safe for all users.

60. Action: Place safety information related to hunting season (such as warning hikers to wear blaze orange) on the information kiosks of town-owned land
61. Action: Work with all key stakeholders to ensure that they educate their members to reduce conflict between town residents and visitors, as well as between people using the same recreational areas for different uses
62. Action: Determine appropriate locations for town or privately maintained off-road parking at trailheads and in areas of heavy recreational use, such as the Bolton Potholes
63. Action: Adopt trail standards that have proven effective in similar municipalities, to guide or regulate the development, use and maintenance of current and future walking, hiking, mountain biking, snowmobiling, all-terrain and off-road vehicle trails in Bolton, particularly for trails developed on town land
64. Action: Develop a comprehensive trail map to show Bolton's existing trail network and trail connections to other adjoining towns

Natural Resources

Development, transportation and recreation are all integral parts of the Town's future; however, each and every change will have some impact on our natural resources. This plan provides a basis to make well-informed decisions which will balance the need for change with the impact on natural resources in order to preserve the natural features, biodiversity, ecological health, aesthetics and rural character of Bolton for future generations.

GOAL: THE TOWN OF BOLTON SHOULD DEVELOP IN A MANNER THAT IS SENSITIVE TO THE TOWN'S UNIQUE NATURAL RESOURCES AS INVENTORIED AND MAPPED IN THE 2013 SCIENCE TO ACTION STUDY.

- I. **Objective: The Vermont Agency of Natural Resource's online Natural Resources Atlas may be used in addition to Maps 2-6 as adopted in this plan to identify the location of resources to be protected from development as identified within this Plan.**

Science to Action Report

Bolton's natural resources have been identified, studied and mapped. In 2013, Arrowwood Environmental conducted a four-town natural resources inventory for Bolton, Huntington, Jericho and Richmond as part of the region-wide ECOS project. This inventory and associated policy suggestions for protecting the resources became the **Science to Action Report**. Rather than repeat the detailed description of Bolton's natural resources in this chapter, this plan incorporates the inventory, description and mapping of natural communities and habitat in the 2013 Science to Action Report by reference. Select management recommendations that the town wishes to pursue have been incorporated as goals, objectives and actions below. Readers who want to learn more about the resources discussed in the report are encouraged to look at a copy of the report and the associated maps, available online (<http://arrowwoodvt.com/STA/>) and in the Town Office.

Community engagement surveys conducted in the fall of 2015 showed that **90% of respondents valued Bolton's natural beauty and other natural resources.**

Geological Features

Soils in Bolton range from prime agricultural soils along the Winooski floodplain to cliffs. Bolton has one commercial and two large private gravel pits, as well as a number of small, limited use pits on private property. Extensive deposits of gravel soils are important enough to be considered by the Town for purchase to ensure supplies of road gravel in the future. However, correctly managed gravel extraction is key: poorly managed extraction and transport of gravel, as well as improper decommissioning of extraction pits, can cause runoff that leads to pollution and road deterioration.

Much of Bolton is mountainous and characterized by steep slopes (15 to 25% grade) and very steep slopes (above 25% grade).

- I. **Objective: Development on farmland, including public and private roads, driveways and utility corridors, shall be designed to minimize site disturbance and fragmentation by following linear features such as roads, tree lines, stone walls, fence lines or field edge.**

Roads, driveways and utility corridors shall be shared to the extent feasible. Farmland is defined by prime or statewide agricultural soils, open fields or active agricultural production.

II. **Objective:** Development, including public and private roads and driveways, shall avoid steep slopes greater than 15% and less than 25% by siting the proposed development in an alternate location to the extent physically feasible.

III. **Objective:** Development, including public and private roads and driveways shall not be located in areas of very steep slopes of 25% or more.

IV. **Objective:** Operation, stormwater management and erosion control and site reclamation plans shall be submitted for all earth extraction and quarrying operations within Bolton, to ensure that the proposed operation will not cause any hazard to public health and safety, or adversely affect neighboring properties, property values or public facilities and services, surface water and groundwater supplies, critical wildlife habitat, or other natural, cultural, and historic features.

Water Resources

Surface Waters

The most prominent source of surface water in Bolton is the Winooski River which runs for approximately six miles through town. Other surface waters include Duck, Gleason, Goose, Joiner, Mill, and Preston Brooks and Goose and Preston Ponds. Other bodies of water include smaller streams and ponds created by beaver activity or seasonal run-off as well as man-made ponds for private use and snow making.

Ground Waters

The vast majority of Bolton residents depend on ground water as their drinking water source. Ground water serves as the source for residential single-family wells in Bolton as well as the multi-user system serving the Bolton Valley Resort area (Catamount Bolton Water and Sewer). The continued protection of ground water, particularly limiting development in source protection areas, is key to the health and safety of Bolton residents. For a more detailed discussion of the future of water systems in Bolton, please see the Utilities, Facilities and Services Section (hyperlink).

Wetlands

Bolton contains 15 different wetland community types spread over approximately 450 acres, shown on Map 2. Seven of these wetlands are considered significant by the State. These wetlands are important as a habitat to a wide variety of wildlife, ranging from amphibians and beavers to

bears, and provide recreation opportunities, such as at Preston Pond. By capturing stormwater,

Insert here: visual aid showing different types of wetlands and surface waters, including vernal pools, woodland seeps, headwater streams AND text description since not all wetlands are mapped.

MAKING THE CONNECTION

See the Resilience Section for a detailed discussion of floodplains and erosion in Bolton (hyperlink).

SCIENCE TO ACTION

This 2013 report offers a detailed inventory and discussion about wetlands, forests, core wildlife habitats, significant communities and habitat areas and wildlife travel corridors. The report also offers management recommendations as well as detailed definitions and descriptions of important terms and concepts.

slowing its flow and filtering it into the groundwater, upland wetlands play an important role in stormwater management and erosion control. Wetlands filtering of water also recharges ground water supplies. The 120 acres of Bolton's wetlands that lie in the Winooski River valley are vital to flood control. The wetlands are made up of "floodplain forests" that capture floodwaters, lessening their effect on developed areas. The roots of the wetland trees also stabilize the banks of the Winooski River, preventing erosion. Arrowwood Environmental recently completed a detailed inventory of floodplain habitat along the Winooski River (RESULTS?).

Vernal pools and woodland seeps are areas of wetlands that appear during wet times of year. When vernal pools emerge in the spring, they support unique ecosystems full of species that cannot live elsewhere. Woodland seeps provide groundwater discharge which support the base flow of headwater streams.

GOAL: SURFACE AND GROUND WATER IN BOLTON WILL BE MANAGED TO ENSURE THAT WATER QUALITY IS MAINTAINED AND HABITAT IS PROTECTED.

III.V. Objective: Development shall be prohibited within a 200-foot radius of a well or spring that serves a public water supply, except for activities, structures and uses directly related to the water system.

IV.VI. Objective: To the extent feasible, all on-site septic systems, including leach fields, shall be located outside of a designated source protection area. Continue to protect drinking water sources by prohibiting development within 200 feet of wells and springs serving as water supplies, and by ensuring that all development within designated Source Protection Areas is reviewed for consistency with State of Vermont-approved source protection plans.

V.VII. Objective: Development, including public and private roads, shall not take place on or within 50 feet of all wetlands identified by the Vermont Significant Wetland Inventory (shown on Map 2) or identified through field investigation, in order to retain their value as wildlife habitat, flood protection and water quality protection. Wetlands include vernal pools, headwaters and seeps.

VI.VIII. Objective: Development shall not take place within 200 feet from Goose Pond, Preston Pond and Upper Preston Pond, or within 50 feet of any other naturally occurring lake or pond with a surface area greater than one acre, as measured from the annual mean high water mark.

Forests

Forests are one of the primary natural resources of Bolton. Almost 93% (25,000 acres) of Bolton is covered in forest. Healthy forests are of prime importance to the Town. Forests provide habitat for almost all of Bolton's diverse wildlife and protect infrastructure and town residents as well. Upland forests (forests outside the floodplain or wetlands) absorb, cool, filter and slow down water as it descends to the Winooski River and the more populated areas along its banks. This lessens erosion and

*"Boulders, bears, trees, outdoor recreation."
-Resident asked to describe Bolton in 5 words or less*

landslides. Riparian forests (those located along the banks of the Winooski River and other bodies of water) have many important functions, including stabilizing banks, providing habitat and food for animals, and catching and filtering out pollution. Given the many services provided by riparian vegetation, preservation and strengthening existing riparian forests along the Winooski River, especially in the flood plain, is important to the town.

Mast Stands

Mast Stands are concentrated groups of trees, such as oaks, with abundant fruit and nut production. These stands are a critical supply of food for many types of wildlife. Mast stands that are intact and isolated from human contact are key to the survival of wildlife such as bears, deer and turkeys.

Logging

Given the abundance of Bolton's forests, logging is, and should be, an important industry. Forestry in Vermont should be conducted in accordance with the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont (AMPs) to comply with the Vermont Water Quality Standards and discourage discharges from logging operations. Poorly managed logging can result in long-term changes in a forest's species distribution, as well as erosion and sedimentation problems. Property owners who are involved in forest management are encouraged to consult a professional forester and to enroll their wooded land in the Vermont Current Use Program, which requires a management plan and includes a significant tax incentive for enrolled property owners. In 2015, over 7,000 acres of forested land in Bolton had Current Use status.

GOAL: MAINTAIN CORE FOREST AND FARMLAND, AS SHOWN ON MAPS 1 AND 3, TO SUPPORT BOTH THE RURAL ECONOMY AND WILDLIFE

~~VII.IX.~~ **Objective:** The Town of Bolton strongly supports responsible forest management that follows the State of Vermont's Acceptable Management Practices (AMPs) on both public and private property, including consultation with a professional forester and development of forest management plans that balance the economic benefits of logging with maintaining healthy forests and water quality and protecting wildlife habitat.

~~VIII.X.~~ **Objective:** Minimize forest fragmentation, especially in core forest (identified in the Science to Action report and shown on Map 1), by minimizing the incursion of roads and clearing for development.

~~IX.XI.~~ **Objective:** Areas previously logged shall not be considered exempt from the standards of the development review process when development is proposed.

~~X.XII.~~ **Objective:** An appropriate use of Contiguous Habitat Units (identified in the Science to Action report and shown on Map XX) is forest management activities that support a diversity of forests, including early succession forests, and that do not lead to an extension of edge conditions (as defined in the 2013 Science to Action Report).

~~XI.I.~~ **Objective:** Development on farmland, including public and private roads, driveways and utility corridors, shall be designed to minimize site disturbance and fragmentation by following linear features such as roads, tree lines, stone walls, fence lines or field edge. Roads, driveways and utility corridors shall be shared to the extent feasible. Farmland is

~~defined by prime or statewide agricultural soils, open fields or active agricultural production.~~

Wildlife

Over 50 unique wildlife species have been identified in Bolton, including elusive carnivores like bobcats and threatened and endangered species like the little brown bat.

Bolton is one of the few towns in Chittenden County that still has large areas of un-fragmented forest that only have occasional human presence. These forests provide “core habitat,” which many animals depend on for survival. Bolton has six “Contiguous Habitat Units” (CHU), covering approximately 85% of the town. In fact, the Bolton Mountain CHU is one of largest CHUs in Vermont, and 15,000 acres of it are contained in Bolton (see Map X). Large CHUs are particularly important for mammals which require extensive territories to roam, such as black bears and bobcats. Conservation of Bolton’s CHUs, is vital to conserving wildlife populations and biodiversity, not just in Bolton but throughout the Region and State.

“Core habitat” is habitat that is not affected by the changes in plant types, animal presence and microclimate that occur at the edge of an ecological community. Core habitat provides critical space for wildlife to mate, nest, feed and den.

Bolton’s conifer forests also provide winter habitat for deer (“Deer Wintering Yards”) by sheltering them from snow and cold temperatures (See Map 1). High elevation spruce-fir forests have created excellent habitat for breeding birds, especially Bicknell’s Thrush (See Map 1).

Wildlife travel corridors are essential to wildlife survival because they connect habitats and allow wildlife to move to new locations and range freely between otherwise unconnected Contiguous Habitat Units, depending on their seasonal needs and life cycles. Wildlife travel corridors often cross roads in Bolton, leading to potential danger to both animals and humans (see Map X.) Appropriate planning can minimize the damage of development to wildlife travel corridors.

Bolton also has an abundance of steep, rocky terrain which provides Ledge, Talus & Cliff Habitat. Vertical rock structures provide habitat for a few species, most notably nesting peregrine falcons. Broken ledges create habitat for a wider variety of animals, especially bobcats, coyotes, and fishers.

Rare Threatened and Endangered Species

According to the State of Vermont, there are 18 species of Rare, Threatened and Endangered plants and animals in Bolton. Because of the precarious nature and status of rare, threatened and endangered populations, the Town of Bolton believes that the conservation and protection of the habitats that support these populations require great vigilance.

The habitat of the Bicknell Thrush is considered to be of special importance to the Scientific Advisory Group on Birds of the Vermont Endangered Species Committee. According to Vermont Fish and Wildlife, the thrush's habitat is mainly forested high elevation areas above 2,800 feet. The survival of this species depends on the availability of undeveloped and forested high elevations. This type of habitat naturally exists and can be further encouraged by allowing fir trees to grow along the edge of

downhill ski trails. The State of Vermont and the Town of Bolton required Bolton Valley Ski Area to set aside undisturbed acreage to support the Bicknell Thrush's survival. If wind development is to take place in Bolton, it must not destroy the habitat of the Bicknell Thrush or other rare, threatened and endangered species.

GOAL: INCREASE OR MAINTAIN, AT BEST, POPULATIONS OF RARE, THREATENED, AND ENDANGERED SPECIES IN BOLTON.

XII.XIII. Objective: The Town will support all efforts pursuant to the state of Vermont's Threatened and Endangered Species Law, or other regulatory and non-regulatory mechanisms, to conserve or otherwise protect rare, threatened and endangered species and the habitats necessary for their continued survival.

XIII.XIV. Objective: The Town of Bolton will require a consultation with a wildlife biologist regarding the impact of proposed development that will affect the habitat area of a rare, threatened or endangered species.

Invasive Species

Non-native, invasive species can quickly destroy native habitats and eco-systems. The Town relies on the Conservation Commission and state agencies to help educate citizens about possible threats and to mitigate against them. Many invasive species can become established and spread quickly from disturbed sites or stressed environments. Undisturbed areas and healthy organisms are less susceptible to harm from invasive species.

LEARN MORE

To learn more about invasive species threatening Bolton and what you can do to prevent their spread, visit the VT Invasives website (hyperlink).

GOAL: PROTECT CONTIGUOUS HABITAT UNITS, SIGNIFICANT NATURAL COMMUNITIES AND SIGNIFICANT WILDLIFE HABITATS FROM FRAGMENTATION AND DESTRUCTION.

XIV.XV. Objective: Minimize fragmentation of Bolton's contiguous habitat units, significant natural communities and significant wildlife habitats (as inventoried in the Science to Action Report and shown on Map XX).

65. Action: Inventory Bolton's wildlife travel corridors and ground-truth the habitat linkages shown in the Arrowwood Science to Action Report, and conduct continuing education to increase understanding of local resources.

XV.XVI. Objective: Prohibit development on rock outcrops, including ledge, cliff and talus habitat (as inventoried in the Science to Action report and shown on Map 2).

XVI.XVII. Objective: Prohibit development or fragmentation of rare, threatened or endangered species habitat (as inventoried in the Science to Action report and shown on Map 1).

Conserved Land

The significance of Bolton's natural resources is demonstrated by the fact that 77% of the town's land has been conserved, either through purchase by federal, state or local government, purchase by non-profits, or conservation easements on private land.

"Beautiful mountains and woods."

"A natural, beautiful mountain."

-Residents asked to describe Bolton in five words or less

Conserved land in Bolton has many benefits for humans and animals. It protects the large habitat blocks that support Bolton's wildlife, and provides the recreational opportunities valued by Bolton's residents.

Summary of Conserved Land in Bolton

Owner	Total Acres	% of Bolton's Total Land
State of Vermont (Camels Hump State Park, Mt. Mansfield State Forest, Robbins Mountain Wildlife Management Area, Bolton Valley Nordic Lands and others)	13,471.5	51%
United States Government (Ethan Allen Firing Range)	2,285.9	9%
Green Mountain Club	3,414.2	13%
Villeneuve/O'Malley	489.0	2%
Town of Bolton	469.2	2%
Jericho Land Trust	122.8	0%
CRAG, VT	56.0	0%
UVM Outing Club	20.0	0%
TOTAL CONSERVED LAND	20,328.6	77%

In 2003, the Town of Bolton acquired the 403 acre Preston Pond property. This site provides the Town with a significant recreational and natural resource which requires continued careful management by Bolton's Conservation and Planning Commissions. The Vermont Land Trust holds a permanent easement on the land which does not allow for any type of development to occur on the property. See the 2016 Preston Pond Management Plan, incorporated by reference into this plan, for a detailed description of the property (hyperlink).

GOAL: LAND IN BOLTON THAT IS CURRENTLY CONSERVED WILL BE MANAGED TO ENSURE THE HEALTH OF ITS NATURAL RESOURCES AND ITS VALUE AS A COMMUNITY RESOURCE.

~~XVII.~~XVIII. **Objective: The Town of Bolton will maintain and steward its current amount of conserved land but will discourage proposals to preserve large amounts of land that are developable under the BLUDR as most recently adopted.**

~~XVIII.~~XIX. **Objective: Land that is owned by the Town of Bolton will be managed by the Conservation Commission and the Select Board in a way that preserves its natural features and keeps it available for recreational use by town residents and visitors.**

~~XX~~XX. Objective: Management of the Preston Pond Town Forest will follow the standards listed in the Preston Pond Conservation Area Management Plan and the restrictions in the property's easement.

~~XX~~XXI. Objective: Spending of the Bolton Conservation Fund to purchase land will be prioritized for uses that further advance the goals and objectives of this Plan, including to create spaces for community gathering and recreation near existing or new housing.

Scenic Resources

It could be argued that every view in Bolton is scenic. Most town residents can identify a view that they prefer above all others – whether it's the view of Camel's Hump from their kitchen window, the fall foliage seen from Libby's Look, the sunset on the Winooski River, or the panoramic view at the top of a ski lift at Bolton Valley. Bolton's forested ridgelines and mountainsides, as viewed from I-89 and US 2, have been identified as scenic by the state. This is significant when it comes to the review of proposed development. However, to date there has been no formal inventory of scenic viewsheds or roads in town that have been identified for protection. As a result, the impact of development on the town's scenic resources is not consistently addressed in local or state regulatory proceedings.

Goal: Bolton's scenic views, including ridgelines, will be protected from development that harms their aesthetic qualities or fragile ecosystems.

XXII. Objective: Bolton's scenic ridgelines are a defining characteristic of the town, and development shall be located in such a way that their aesthetic appeal is not lessened, especially along the ridgelines seen from the Rt. 2/I-89 corridor. This includes forms of development that may only be possible on areas of steep slopes or on ridgelines, including telecommunications towers, ski lifts and wind turbines.

66. Action: Inventory and map Bolton's scenic landscape features, scenic roads and view sheds, and recommend additional regulatory and non-regulatory options for their protection

XXIII. Objective: The development of solar energy shall follow the same setback and screening regulations applied to other commercial development in the District in which it is located.

Chapter 4: Land Use

Historically, Bolton's development has been concentrated largely around West Bolton and along the Winooski River. In the twentieth century, the creation of the Ethan Allen Firing Range led to the destruction of many historic homes and buildings in West Bolton, while the founding of Bolton Valley Resort created a new population center that still exists today. Future development is highly limited throughout Bolton—roughly 51% of the Town's land is owned by the State of Vermont, and approximately 26% more is conserved through other public and private entities. Bolton's mountainous terrain also creates development constraints—much of the town's land is characterized by slopes too steep to build on or floodplains where new structures are prohibited. When all constraints on development are considered, about 3% of the town's land is available for development. Because of these limitations, finding areas for additional development and an increased tax base will be challenging. Currently, most of the Town's developable land is in West Bolton.

Village

Over the next 20 years, Bolton hopes to **transform** the Village section of Route 2 into a vibrant, flood-resilient and higher density mixed use area. Bolton's vision for the Village area is for the area to remain the town's civic and governmental center, anchored by an open and thriving Smilie School that continues to serve as a community gathering place and offers more opportunities and places for residents to gather, celebrate community and support the local economy.

Village District

The Village District, located along Route 2 in Bolton between existing highway and railroad rights-of-way, is an area that serves as the town's historic, governmental, civic, and commercial center, as well as the gateway to Bolton Valley. The historic boundary of this district has been expanded to include several parcels near the foot of the Bolton Valley Access Road, which were previously part of the Rural I District. The parcels have uses and densities more similar to the Village District than the Rural I District. The purpose of the Village District is to allow for the continuation of existing commercial, residential, and public uses in this area, and to encourage future development that is compatible with and promotes an historic village settlement pattern. Such development may include higher densities of development, as supported by existing and planned infrastructure.

Resort

Bolton residents wish to see Bolton Valley Resort and the surrounding areas **evolve** into a successful four-season resort that remains a key part of the local economy and retains its family friendly nature.

Resort Village District (Bolton Valley)

The Resort Village District includes land comprising the Bolton Valley Resort's village base area that is served by the Catamount Bolton water and wastewater systems. The purpose of this district is to allow for coordinated, well planned higher density development, including a mix of recreational, commercial, and multi-family residential uses within a compact village setting, in a manner that supports the development of the resort as a year-round destination while protecting significant natural features and environmentally sensitive areas. Development of Bolton Valley Resort property shall occur in accordance with a **newly developed** master plan that establishes a clear indication of the intended type

and pattern of future development. Significant additional development in this District will depend on the availability of additional water and wastewater capacity.

Resort Residential District (Bolton Valley)

The Resort Residential District encompasses areas adjoining the Resort Village District, including the Bolton Valley Resort entrance on the Bolton Valley Access Road. The purpose of this district is to allow for moderate densities of coordinated, well-planned recreational, lodging and residential development in the immediate vicinity of the resort village, in an area that is served by centralized infrastructure and utilities, in a manner that reinforces the function of Bolton Valley as a compact resort village and protects significant natural features, ridgelines and environmentally sensitive areas. Development of Bolton Valley Resort property shall occur in accordance with a newly developed master plan that establishes a clear indication of the intended type and pattern of future development.

Rural

Bolton's residents plan to **maintain** the town's rural, natural, beautiful landscape, working farms and forests and quiet residential areas.

Rural I District

The Rural I district includes areas with ready access to public roads, which are generally suitable for residential development, including the town's traditional rural residential areas. The historic boundary of this district has been expanded to include existing small in-holdings on the Duxbury Road that are currently located within the Conservation District. The purpose of this district is to allow for traditional uses such as forestry and agriculture, moderate densities of residential development in appropriate locations, and limited commercial development along Route 2, in a manner that maintains the town's rural character.

Rural II District

This district includes upland areas with access and/or development constraints. The purpose of the district is to allow for limited, compatible, lower densities of development that maintain Bolton's rural character and protect significant natural resources while discouraging subdivision and development in areas with limited access to public roads.

Significant Resources Discussed in the Natural Resources Section:

- Wetlands
- Source Water Protection Areas
- Steep Slopes and Very Steep Slopes
- Wetlands
- River Corridors
- Special Flood Hazard Areas
- Surface Waters
- Ground Water
- Core Forest
- Farmland
- Contiguous Habitat Units
- Significant Natural Communities
- Significant Wildlife Habitat

Areas with Development Constraints (OR Uplands?)

Bolton's residents plan to **maintain** the town's higher elevation lands that host important natural resources, are fragile, or are difficult to access. These areas include state parks and conserved lands, as well as most of the town's working forests.

Forest District

The Forest District includes all land above 1,500 feet in elevation, except for such land within the Resort Village, Resort Residential, and Conservation Districts. The Forest District includes parcels without access

to existing Town, state or private roads. The Forest District minimizes the fragmentation or destruction of significant resources in Bolton (as discussed in the Natural Resources section). The purpose of this district is to protect Bolton's more remote and inaccessible forested upland areas from fragmentation, development, and undue environmental disturbance, while allowing for the continuation of traditional uses such as forestry, outdoor recreation and compatible low-density residential development.

Conservation District

The Conservation District is intended to include all land above 2,500 feet in elevation, the town's permanently conserved lands, including town and state owned parks, forests and conservation land, and private in-holdings on Honey Hollow Road. The purpose of the Conservation District is to protect Bolton's generally remote and inaccessible mountainous areas and the town's significant resources - from fragmentation, development, and undue environmental disturbance, while allowing for the continuation of traditional uses such as forestry and outdoor recreation.

West Bolton Hamlet

As one resident said during a community engagement event in October 2015, "we should recognize that West Bolton isn't stagnant, it's always changing." Working with residents of West Bolton to decide the future of the area as it **evolves** will be a priority for the Town during the period of this plan. West Bolton has historically been one of Bolton's most densely populated areas. Although the creation of the Ethan Allen Firing Range lead to the destruction of many of the area's historic homes and buildings, West Bolton has retained a unique "neighborhood" character. Although the area is currently part of the Rural I District, it is characterized by lots that are smaller and buildings that are closer to the road than what is allowed by current zoning regulations. These "pre-existing non-conformities" create an extra layer of regulatory challenges for residents, who must navigate a more complicated process than if the area were zoned with existing buildings and lots in mind. The Development Review Board and the Planning Commission support the creation of a West Bolton "hamlet," encompassing roughly the area within a one-half mile radius of the intersection of Stage and Notch Roads. The exact nature of the hamlet remains to be decided, but regulations will be revised to allow for smaller lots and more compact development. During community engagement undertaken for this plan, West Bolton resident expressed a range of ideas for the future of the West Bolton area. Residents value the sense of neighborhood found in the area, and many residents wish to see well-planned growth that expands the number of homes and allows for small business development. The area is one of the few parts of Bolton with appropriate topography and soils for development. However, all future changes must retain Bolton's small-town feel and residents' easy access to nature.

Flood Hazard Overlays

The Flood Hazard Area Overlay Districts have historically included all designated Special Flood Hazard Areas. This plan amends the definition of this district to include all designated Special Flood Hazard Areas and River Corridors. The purpose of the Flood Hazard Area Overlay Districts is to (1) protect public health, safety, and welfare by preventing or minimizing hazards to life and property due to flooding; to (2) manage development, as specifically defined for this purpose, within designated Special Flood Hazard Areas (SFHAs) and River Corridors according to the town's adopted municipal and hazard mitigation plans; and to (3) ensure that the town is eligible for continued membership in the National

Flood Insurance Program so that the town, its residents and businesses may qualify for federal flood insurance, and for available federal disaster recovery and hazard mitigation funds.

Flood Hazard Overlay District I

The Flood Hazard Overlay District I encompasses all Special Flood Hazard Areas and River Corridors that are within the Village District. All development that is allowed in the Village District is also allowed in the Flood Hazard Overlay District I, provided it meets flood hazard regulations and is not a type of development specifically prohibited within all Special Flood Hazard Areas. The State of Vermont may also review and approve certain types of development in the FHO II, such as public utilities, water/wastewater systems, floodplain management activities or stream crossing structures like bridges.

Flood Hazard Area Overlay District II

The Flood Hazard Area Overlay District II encompasses all Special Flood Hazard Areas and River Corridors outside of the Village District. Almost all new development is prohibited in the Flood Hazard Overlay District II, with exception of low impact uses such as agricultural, forestry, or accessory structures. The State of Vermont may also review and approve certain types of development in the FHO II, such as public utilities, water/wastewater systems, floodplain management activities or stream crossing structures like bridges.

GOAL: BOLTON'S DEVELOPMENT PATTERN WILL CONTINUE TO BE CHARACTERIZED BY AREAS OF COMPACT SETTLEMENTS ALONG ROUTE 2, IN BOLTON VALLEY AND IN WEST BOLTON, AND RURAL HOMESTEADS AND LARGE UNDEVELOPED AREAS ELSEWHERE.

- I. Objective: Development in Bolton shall conform with the land use district descriptions as described in this chapter and shown on Map 12, and with policies for the protection of natural resources as described in the Natural Resources section of this plan.**
- II. Objective: The Bolton Land Use and Development Regulations ("zoning") shall reflect the purposes of the individual land use districts and the protection of resources as stated in this Plan, and all development activity in Bolton shall conform to the requirements and restrictions on development indicated in those Regulations.**

67. Action: Revise the zoning regulations (the Bolton Land Use and Development Regulations or BLUDRS) as appropriate to clarify them and increase their ease of interpretation, to ensure consistency with state policies, to advance the goals of this plan and to address the issues identified below:

Overarching Issues

- a. Review and update mapped boundaries, dimensional standards and allowed uses under established zoning districts to determine whether any adjustments are justified
- b. Review and update the town's land use regulations and other policies and ordinances as needed to clearly reference and further protect the town's significant natural, cultural, historic and scenic resources, as discussed in the Natural Resources section of this plan and shown on Maps 1-5.
- c. Re-evaluate Select Board-adopted administrative and permit fee schedules as needed to ensure that the fees charged are adequate to cover allowed administrative costs and

are comparable to those charged by similar towns but are not prohibitively expensive for residents.

Historic Preservation

d. Require, in association with state and local regulatory proceedings, rehabilitation and mitigation measures necessary to protect identified historic sites, structures and landscape features, in conformance with U.S Secretary of Interior's Standards for Rehabilitation as most recently amended and applicable to a particular type of development or resource, or similar guidance from the Vermont Division for Historic Preservation

Economy

e. The Town of Bolton will work with Bolton Valley Resort to gain an understanding of specific regulatory barriers that may act as a deterrent to development at the Resort, and to identify possible changes to the Bolton Land Use and Development Regulations that meet the goals of the Town Plan to address those challenges

f. Create educational materials for residents and business owners to learn about the Bolton Land Use and Development Regulations

g. Ensure that the Bolton Land Use and Development Regulations encourage the creation of home businesses

Telecommunications and Energy Siting

h. Revise the Bolton Land Use and Development Regulations to provide density bonuses for Planned Unit Developments with layouts that enable energy efficiency and the use of renewable energy sources

i. Revise the zoning regulations to include renewable energy projects in the discussion of setbacks and screening

j. Review and update the telecommunications and co-location standard guiding local permitting and providing guidance to the Select Board and Planning Commission's participation in the PSB process

Roads

k. Update town highway regulations to ensure good construction, safety and resilience of private roads

Water Quality and Stormwater

l. Work with the Vermont Rural Water Association to develop an updated source water protection plans for community water systems in Bolton during the revision of the Bolton Land Use and Development Regulations

m. Determine and implement appropriate strategies for incentivizing or requiring Low Impact Development (LID) to reduce stormwater runoff from new development

n. Review, clarify and update existing stormwater management requirements under the bylaws, to incorporate new state standards and model language, as applicable to Bolton

Flood Resilience and River Corridors

o. Review flood hazard area bylaws for consistency with more recent state models and recommendations.

p. Use best available data to develop a river corridor overlay district after evaluating current stream setback requirements in relation to new state river corridor maps and model language.

Steep Slopes

q. Clarify, update steep slope regulations; evaluate whether additional engineered options to allow very limited development on 25+% slopes (e.g., to access adjoining land) is justified under the regulations – e.g., in association with an independent technical engineering review, and related stormwater management concerns

68. Action: Increase planning reserve funding to cover match requirements for planning grant programs.

III. Objective: Bolton will plan for a population growth rate of 2% or less per year, and will plan for a growth in housing (5 units per year) and other building commensurate with that rate.

IV. Objective: The development of energy generation facilities in Bolton shall meet the goals and objectives of this plan, as expressed in the Land Use section, the Natural Resources section and the Energy section.

GOAL: THE TOWN OF BOLTON WILL SEEK OPPORTUNITIES FOR INCREASED DEVELOPMENT THAT ARE APPROPRIATE FOR THE RURAL NATURE OF THE TOWN.

V. Objective: Educate residents and business owners about using the Bolton Land Use and Development Regulations.

VI. Objective: Discuss the future of West Bolton with the community and determine the feasibility of increased “hamlet” development.

69. Action: Examine resident support for rezoning West Bolton as a new “hamlet” district, to include smaller lot sizes and reduced setbacks that are more consistent with the established/ historical pattern of development in this area

70. Action: Examine the feasibility of gaining a Village Center designation for the West Bolton area from the state to allow commercial property owners to access associated benefits, including historic and related tax credits

GOAL: THE TOWN OF BOLTON WILL DEVELOP IN A WAY THAT DOES NOT INCREASE THE COMMUNITY’S RISK FROM NATURAL AND MAN-MADE HAZARDS,

VII. Objective: Development shall not take place within the floodplain outside of the Village area.

VIII. Objective: Development within the floodplain in the Village area shall only be permitted if it elevated above the base flood elevation and designed to be reasonably safe from flooding and to minimize the risk of flooding to other public facilities and utilities and other development.

IX. Objective: Outside of the Village District, development shall not take place within river corridors, as defined by the best available data and shown on Map 6, in order to protect riparian areas for water quality, habitat and erosion control. Regulation of river corridors will replace past regulation of surface water setbacks for streams and rivers, and will draw on the State of Vermont’s River Corridor Model Bylaw.

- 1 71. Action: Review the model and data used to establish the town's 2010 flood map and
- 2 consider completing an engineering study of the SFHA along with Winooski River and using
- 3 the results of the engineering study to review the accuracy of the FEMA-designated SFHA
- 4 and seek a Letter of Map Revision from FEMA if necessary

5

Chapter 5: Implementation

The Town of Bolton has four full-time staff members, an annual municipal budget of less than one million dollars and a town government run completely by volunteers, most of whom have full time jobs. The goals and objectives in this plan reflect both the town's practical concerns and its lofty aspirations, but the actions included in this section are intended to reflect only those things the town expects to reasonably accomplish over the next eight years, given expected staff, volunteer and funding capacity. A second tier of actions are included as well, which represent actions that the town would like to undertake, but would only be able to pursue if new sources of funding arose and/or staff capacity increased. Within each tier, actions are ranked and numbered based first on the prioritization of them at the December 2016 community engagement event, and secondly on the cost, benefit and difficulty of accomplishing them. The actions have been assigned responsible parties, and relevant partners and funding sources have been identified.

SEE SPREADSHEETS

Appendix 1: Glossary

TO BE COMPLETED

Appendix 2: Other Documents

Documents Incorporated by Reference

Town-Specific Documents

- Bolton Community Data Profile (as amended periodically)
- Joiner Brook Watershed: Phase 2 Geomorphic Assessment (2008)
- Joiner Brook River Corridor Plan (2009)
- Protocol for Identification of Areas Sensitive to Landslide Hazards in Vermont (2012)
- Traffic Speed Study for Duxbury and Bolton Valley Access Road (2015/2016)
- Bolton Paving, Culvert and Road Sign Inventory (2016)
- Bolton Highway Erosion Inventory (2016)
- State Register of Historic Sites in Bolton (1980)
- http://orc.vermont.gov/Documents/Bolton_StateRegister_NominationForm_00000003.pdf
- National Register of Historic Places in Bolton (1999) <http://boltonvt.com/wp-content/uploads/2015/10/20151103124557156.pdf>
- Bolton All Hazards Mitigation Plan (as updated and adopted every five years)
- Bolton Local Emergency Operations Plan (as updated and adopted annually)
- Bolton Capital Budget and Program (as updated and adopted annually)
- Preston Pond Management Plan (2016, updated and adopted periodically)
- Town Highway Policies (as amended or adopted by the Select Board)
- Town Ordinances (as amended or adopted by the Select Board)

Regional or Statewide Documents

- Science to Action: Four Town Natural Resources Inventory: Bolton, Huntington, Jericho and Richmond (2013)
- ECOS Plan (2013, updated and adopted every five years) <http://www.ecosproject.com/plan/>
- Winooski River Tactical Basin Plan (as updated in 2017)
- Vermont Natural Resources Atlas (as maintained by the Vermont Agency of Natural Resources)

Associated Documents

- Bolton Land Use and Development Regulations (as amended and readopted periodically)

Appendix 3: Maps

SEE SEPARATE MAP DOCUMENTS

Community Profile: People

Population Growth

Bolton is one of the smallest and most rural towns in Chittenden County, with a 2010 population of 1,182 people.

- Bolton's estimated 2014 population was 1,247 people.[‡]
- Bolton's population increased significantly from 1960 through 1990, but growth has since slowed.*
- Bolton made up .76% of Chittenden County's population in 2010.*
- Bolton had a population density of 28 people/square mile in 2010. It is one of the most rural towns in Chittenden County.

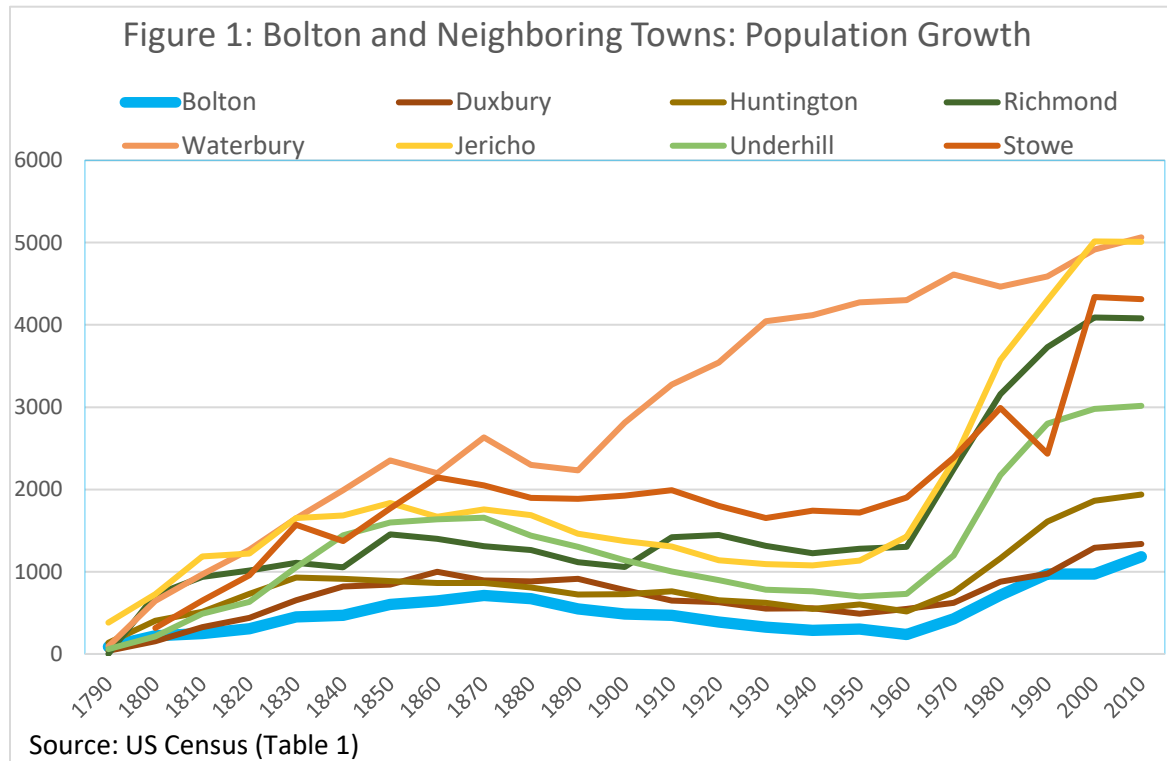


TABLE 1A: 2010 POPULATION, CHITTENDEN COUNTY

BOLTON	1,182
BUELS GORE	30
BURLINGTON	42,417
CHARLOTTE	3,754
COLCHESTER	17,067
ESSEX	19,587
HINESBURG	4,396
HUNTINGTON	1,938
JERICO	5,009
MILTON	10,352
RICHMOND	4,081
ST. GEORGE	674
SHELBURNE	7,144
SOUTH BURLINGTON	17,904
UNDERHILL	3,016
WESTFORD	2,029
WILLISTON	8,698
WINOOSKI	7,267
CHITTENDEN COUNTY TOTAL	156,545

**Table 2: 2010 Population Density
(Persons/Sq. Mi.)**

Bolton	27.78
Chittenden County	291.7
Vermont	67.9
Source: U.S. Census Bureau, Census of Pop. & Housing, TIGER databases	

*US Census (10-years counts through 2010)

‡American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.

People Data Profile

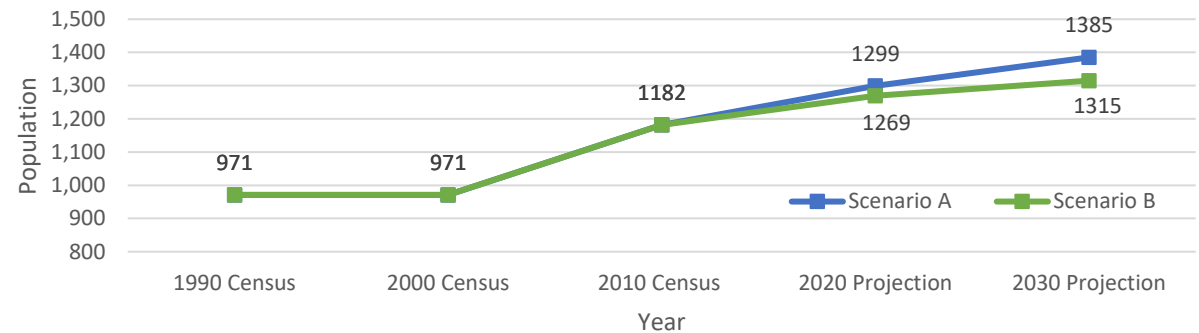
Since 1990, Bolton has grown at a slow but steady rate of 1.1% annually, or about 11 people every year.*

- Though it has a smaller population than its neighbors, Bolton's rate of population growth has generally mirrored that of the small towns surrounding it (with the exception of Waterbury)*

Since 1950, about 60% of the Town's growth has come from natural increase (new births in town), and about 40% from in-migration.¹

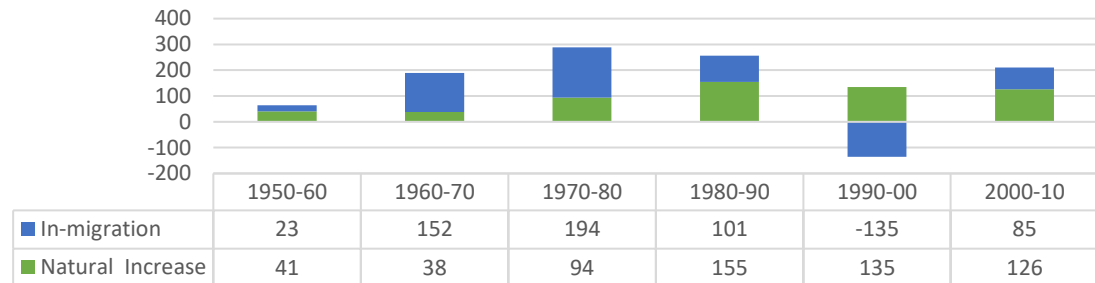
- Bolton's population is predicted to continue growing at a rate of about 1.1% per year between now and 2030, with about 130 to 200 additional residents projected by 2030, depending on the rate of in-migration to the town.²

Figure 2: Bolton Population Projections



Source: Vermont Agency of Commerce and Community Development

Figure 3: Components of Population Change in Bolton



Source: US Census; VDH Vital Statistics

¹ Source: Vermont Department of Health Vital Statistics

² Vermont Agency of Commerce and Community Development Population Projections: <http://dail.vermont.gov/dail-publications/publications-general-reports/vt-population-projections-2010-2030>

*US Census (10-years counts through 2010)

‡American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.

People Data Profile

Bolton's population growth rate has mirrored the growth rate in Chittenden County since the 1960s (see left).

- Most workers in Bolton commute to jobs elsewhere in Chittenden County, so growth in Bolton's population is closely tied to growth in the county (see discussion of housing and economic for more details on where residents work).
- Chittenden County is projected to continue growing at about the same rate it has grown annually since 1990.³

Table 1B: Surrounding Area Populations

Year	Bolton	Chittenden County
1790	88	
1800	220	
1810	249	
1820	306	
1830	452	
1840	470	22977
1850	602	29036
1860	645	28171
1870	711	36480
1880	674	32792
1890	547	35389
1900	486	39600
1910	469	42447
1920	390	43708
1930	325	47471
1940	287	52098
1950	301	62570
1960	237	74425
1970	427	99131
1980	715	115534
1990	971	131761
2000	971	146571
2010	1182	156545

Source: US Census and VT Department of Health

³ Ibid.

**US Census (10-years counts through 2010)
‡American Community Survey (2014 estimates) unless otherwise indicated.
Links to specific tables can be found in the associated spreadsheets.*

People Data Profile

Age Distribution

- In 2010, there were 134 households with children under 18 in Bolton. This was equal to 27.5% of households.*
- Bolton's neighbors in Chittenden County all had higher percentages of children with families.*

Figure 4: Age Distribution

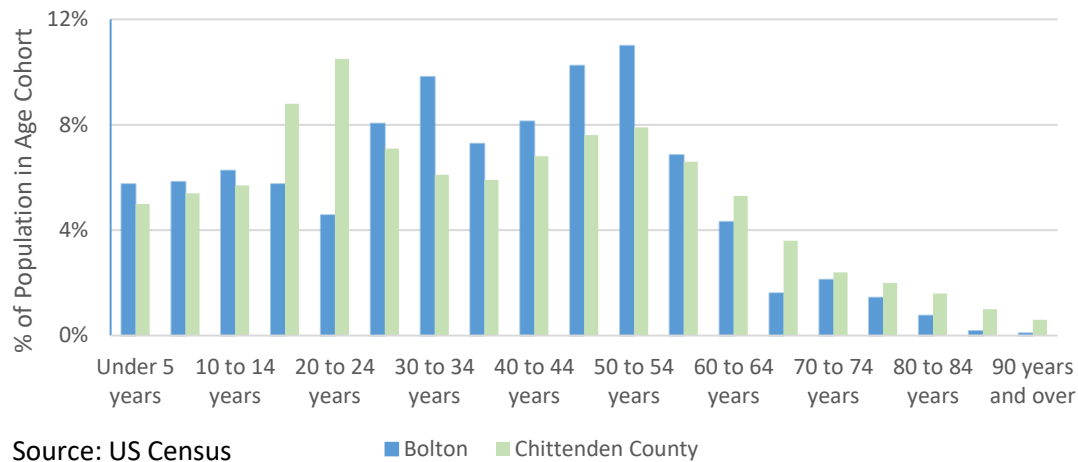
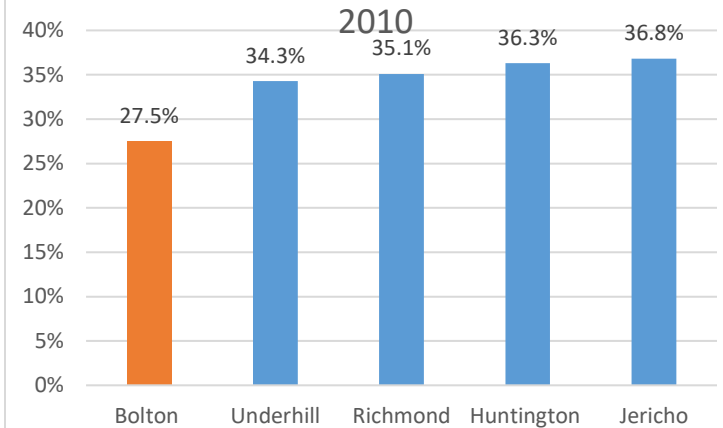


Figure 5: Households with Children,



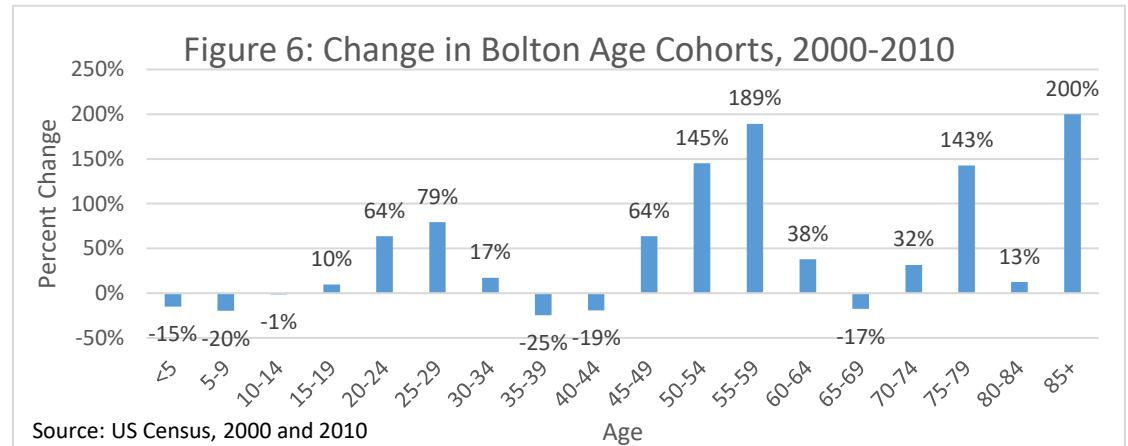
*US Census (10-years counts through 2010)
‡American Community Survey (2014 estimates) unless otherwise indicated.
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People Data Profile

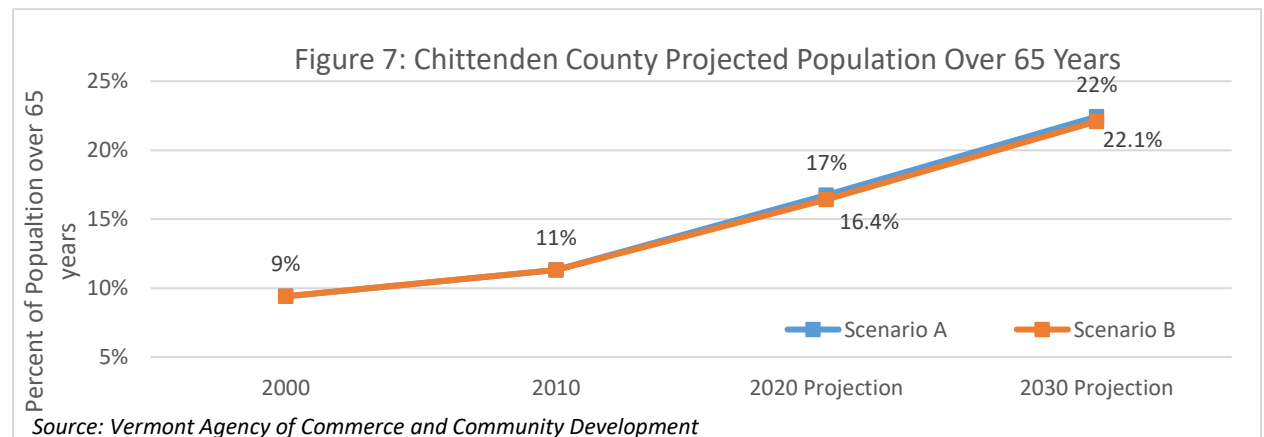
Social Services and Community Health

People in Bolton are older than in the rest of the county, and the median age of town residents will likely continue to increase.

- In 2010, the median age of Bolton residents was 38, while the median age of Chittenden County residents was 36.2 (see below).*
- Bolton's population has been aging over the past decade.* This trend will likely continue. Between 2000 and 2010:
 - The town's total population increased by 211 (21.2%).
 - The school-aged population (< 18 years) decreased by 7.8%.
 - The working age population (18-64 years) increased by 34.5%.
 - The senior population (65+ years) increased by 26%.



- In 2010, 6% of Bolton residents were 65 years old or older.*
 - In 2010, 32% of Bolton residents were between 45 and 64 years old.*
 - By 2030, these residents will be over 65
- No population projections are available for specific age groups in Bolton, but unless there is a large increase in new births or migration from outside Bolton, Bolton can expect this aging trend to continue.
- As stated earlier, this plan assumes that the town will continue to mirror the population trends of Chittenden County. In Chittenden County, the number of people over 65 is projected to double between 2010 and 2030.⁴



⁴ Vermont Agency of Commerce and Community Development

*US Census (10-years counts through 2010)
 ‡American Community Survey (2014 estimates) unless otherwise indicated.
 Links to specific tables can be found in the associated spreadsheets.

People Data Profile

Social Service and Community Health

These population trends will likely result in increased demand for support services, housing alternatives and employment and volunteer opportunities services that will allow local residents to age in place, and continue to actively participate in the larger community.

Bolton's seniors, along with others who have special medical needs, do not currently have easy access to medical or social services.

- In addition to a large population of seniors, up to 5.7% of Bolton's population[‡] may have a disability of some kind, though Bolton's small size makes reliable data difficult to collect.

Medical Needs:

- Bolton has no doctor's offices, so most residents must travel to nearby towns.
- The only medical services in town are those offered by in-home care providers, such as the Visiting Nurse Association, which a few residents use each year (see below). A small town appropriation helps to fund these services. Otherwise, residents must travel to nearby communities or to Burlington for care. This can present a challenge to home-bound individuals.

Table 3: Visiting Nurse Association Visits		
Fiscal Year	Patients in Bolton	Total Visits
2015	4	21
2014	5	120
2013	9	158
2012	8	56
2011	11	81
2010	8	48
Source: Visiting Nurse Association		

Travel:

- Transportation to medical appointments, social events, grocery stores and more is available through the Special Services Transportation Agency. SSTA provides coordinated transportation services to Chittenden County human service agencies such as the Howard Center. Transportation for individuals can be obtained through SSTA's volunteer community drivers, who provide transportation to medical appointments.
- This service is rarely used by Bolton residents

Social Opportunities:

- Bolton's Up & Down Club hosts a monthly community meal for town seniors at the Bolton Fire Station.
 - The meal is part of Champlain Valley Agency on Aging's community meals program.
 - In 2016, approximately 18 seniors attended every month.
- Bolton's seniors have access to the Waterbury Senior Center, but only four seniors from Bolton utilized it during 2016.

^{*}US Census (10-years counts through 2010)

[‡]American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.

People Data Profile

- Meals on Wheels (a CVAA program in which volunteers drive meals to home-bound seniors) is also available in Bolton through the Waterbury Senior Center.
 - Only 8 Bolton residents used it in 2016.
- In Richmond, the nonprofit “Community Senior Center” is raising funds to develop a centrally located senior center to serve the residents of Bolton, Huntington and Richmond.

Food Security

- In 2015 28% of Smilie School students were eligible for free or reduced lunch, providing a rough indicator of food insecurity.⁵ In the summer, Our Community Cares Camp provides free lunch for children who attend. 23 Bolton children attended OCCC in 2015.⁶
- Due to Bolton’s small population, it is difficult to find reliable data on the level of poverty or food insecurity in the community.
 - It is estimated that between 2.9% and 8.1% of Bolton households receive 3 Squares VT (“food stamps”) benefits[‡]
 - According to Hunger Free Vermont, 1 in 7 children in Chittenden County are food insecure, and nearly 1 in 8 Vermont households are food insecure.

⁵ Vermont Department of Education

⁶ 2015 Bolton Town Report

**US Census (10-years counts through 2010)*

‡American Community Survey (2014 estimates) unless otherwise indicated.

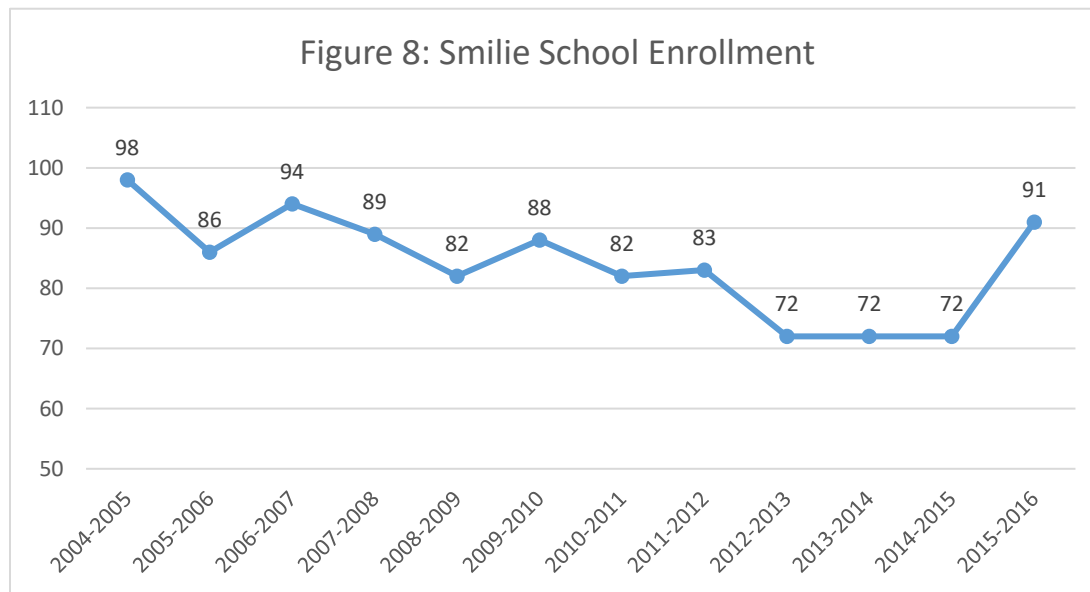
Links to specific tables can be found in the associated spreadsheets.

Education

The number of children living in Bolton has been decreasing.

- In 2010, 27.5% of households in Bolton included children (see above).*
- In 2014, it was estimated that only 10% of households included children under 6 years of age. ‡
- Smilie Elementary School's enrollment has declined by 28% between the 2004/2005 school year and the 2014/2015 school year.⁷
- During the 2015-2016 school year, the number of enrolled students increased.
 - Because Bolton is such a small town, the addition of a few young families can have major impacts on school enrollment.
 - It remains to be seen whether the trend of increasing enrollment is an anomaly or a reversal of recent trends.
 - Community engagement showed that young families recognize Bolton as a good place to raise a family: 42% of survey respondents reported that one of the reasons they live in Bolton is because "it's a good place to raise a family."⁸

Figure 8: Smilie School Enrollment



In 2014, Bolton voted to join the newly formed Mount Mansfield Modified Union School District with Richmond, Jericho and Underhill.

- The communities had already consolidated their 5-12 grade education, but the vote created a single entity governing all education in the three communities, from pre-kindergarten to graduation.
- Rather than retaining its own school board, Bolton now has one member on the 15-member MMMUSD board.
- Smilie School was transferred to the district, and could be closed if enrollments continue to decline.
- The change has also had positive effects, namely lower school tax rates and expanded student access to district programs and services.
- For more information on the merger, read the [Merger Report](#).

⁷ Vermont Department of Education

⁸ 2015 Community Survey

*US Census (10-years counts through 2010)

‡American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.

People Data Profile

Adults in Bolton are generally well-educated and have opportunities for continuing education throughout Chittenden County and Vermont.

- Multiple public and private educational institutions are located in the County, including the University of Vermont, Community Colleges of Vermont, Vermont Technical College, Champlain College, and Saint Michael's College. Cost of the institutions varies and Bolton residents may find the cost of tuition prohibitively expensive.
- Numerous options for online and other forms of distance learning are also available to Bolton residents.
- The Bolton Board of Civil Authority administers the Wheeler Trust Scholarship, which is funded by Xenophon, Irene, Anne and Philip Wheeler.
 - Every year, the scholarship provides up to \$5000 to one to five students under the age of 26 who are seeking post-secondary education. See the full guidelines [here](#).

Childcare

Statistics are not available for Bolton, but in Chittenden County, the majority of families rely on out-of-home-care for their children.

- In 2010, there were 68 children under the age of 5 in Bolton. Most of Bolton's 336 family households have two working parents.*
 - In 2014, it was estimated that there were between 8 and 60 single parent households in Bolton.‡
- In Chittenden County, families pay an average of more than \$19,000 a year for child care.⁹
- In 2016, it was estimated that there were more than 3 children under the age of 5 in Bolton for every childcare spot.¹⁰
 - Two full-day daycare programs are available in Bolton, one registered home program (10 spots) and Part 2: The Early Years, based at Smilie School (30 spots).
 - However, there were zero vacancies at the time the data were collected, and providers indicated that it is common to have no vacancies.
 - Bolton Valley Resort's Honey Bear Child Care is not counted, as only guests and employees are able to access the program.
- Childcare is a regional issue. Most parents prefer childcare that is close to their work, so childcare availability throughout the general Burlington area is important for Bolton residents as well.
 - As of July 2014 in Chittenden County, only 7% of spots in registered child care centers and 11% of spots in home-based child care operations were vacant.¹¹

Figure 9: Educational Attainment of Bolton Adults Over 25 Years Old (2010)

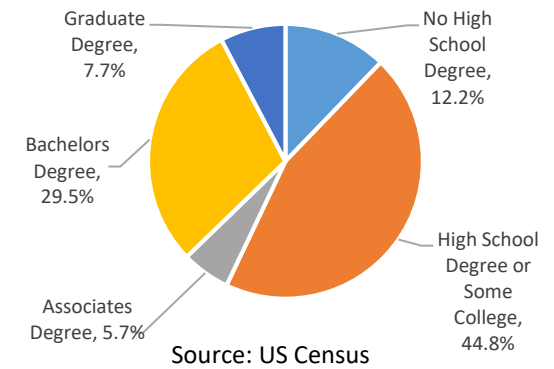
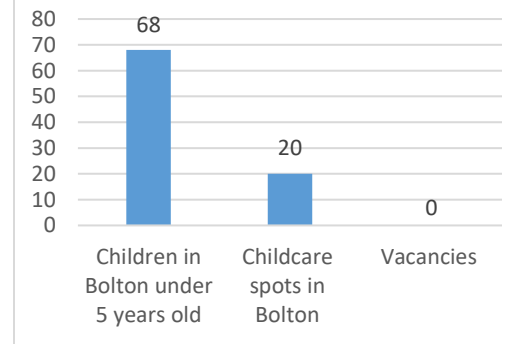


Figure 10: Childcare Availability



⁹ Building Bright Futures

¹⁰ 2010 US Census counts combined with Building Bright Futures childcare data

¹¹ Building Bright Futures Data via Childcare Resource, <http://www.childcareresource.org/community-statistics>

*US Census (10-years counts through 2010)

‡American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.

People Data Profile

For school aged children, different childcare opportunities were available as of 2016.

- Part 2 is a program that provides childcare before and after school for enrolled students.
 - Pre-kindergarteners and kindergarteners stay at Smilie School,
 - Care for students in grades 1-4 is at Richmond Elementary School
 - Care for students in grades 5-6 is at Camel's Hump Middle School.
- Part 2 also provides child care during school breaks, including summer camp.
 - These camps cannot accommodate parents who need flexible scheduling.
- Our Community Cares Camp, an independent nonprofit organization, also provides summer childcare and summer enrichment activities for children in the Chittenden East Supervisory Union.
 - Enrollment in Our Community Cares Camp has been rising steadily since 2009.
 - In 2015, 25 Bolton children attended the camp.

Housing Costs

Housing Data Availability and Accuracy

As reported in the 2010 Census, Bolton had 602 housing units, compared to 412 counted in the 2000 Census. However, these numbers are not accurate. According to the Bolton Grand List, there were 422 housing units in Bolton in 2010 and 402 housing units in Bolton in 2004.

Housing Stock

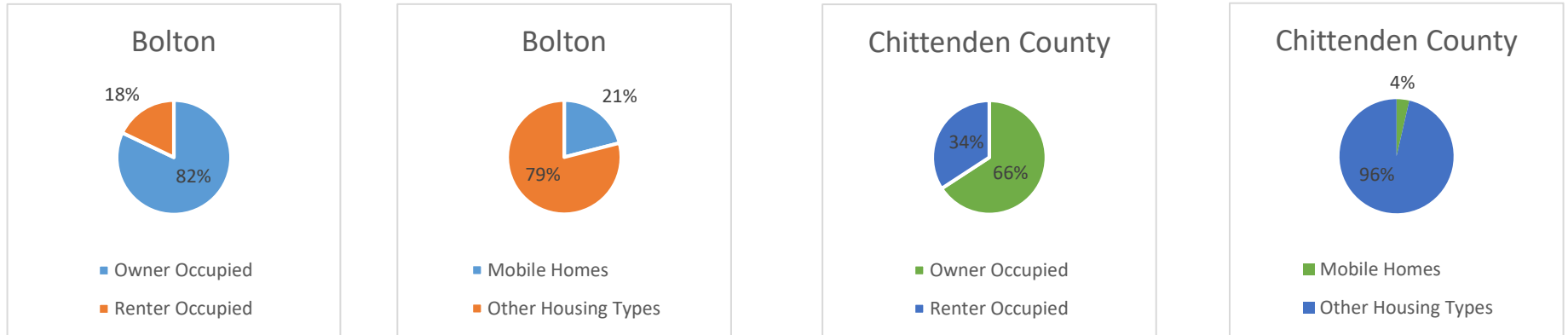
- According to the Grand List, there were 426 housing units in Bolton in 2015.
- Most of Bolton's homes were built in the 1970s and 1980s. In 2014, it was estimated that about 100 homes were over 50 years old, possibly meaning that they are historic structures.
- 87% of homes in Bolton were built before 2000 (before Vermont adopted residential energy codes), meaning they are likely not energy efficient.
- 51% were built before 1980. Lead paint was banned for residential use in 1978, meaning that homes built before that time may contain lead paint.
- There are an unquantified number of abandoned homes or other buildings in Bolton, which may also present a threat to resident safety.

Bolton's housing stock is different than that of Chittenden County's as a whole. According to the 2014 American Community Survey (see charts at right):

- Bolton has a smaller percentage of its housing stock occupied by renters than the County as a whole.
- Bolton has a higher percentage of mobile homes than the County as a whole.

People Data Profile

Figure 9: Housing Stock in Bolton vs. Chittenden County



Housing Availability

Bolton's housing market is connected to that the County as a whole.

- Bolton is primarily a bedroom community, and many residents with full time jobs commute to the Burlington area and other regional job centers (see Economy section).

It is difficult to collect accurate data on housing availability in Bolton. As noted above, the US Census and the American Community Survey data on this topic are flawed.

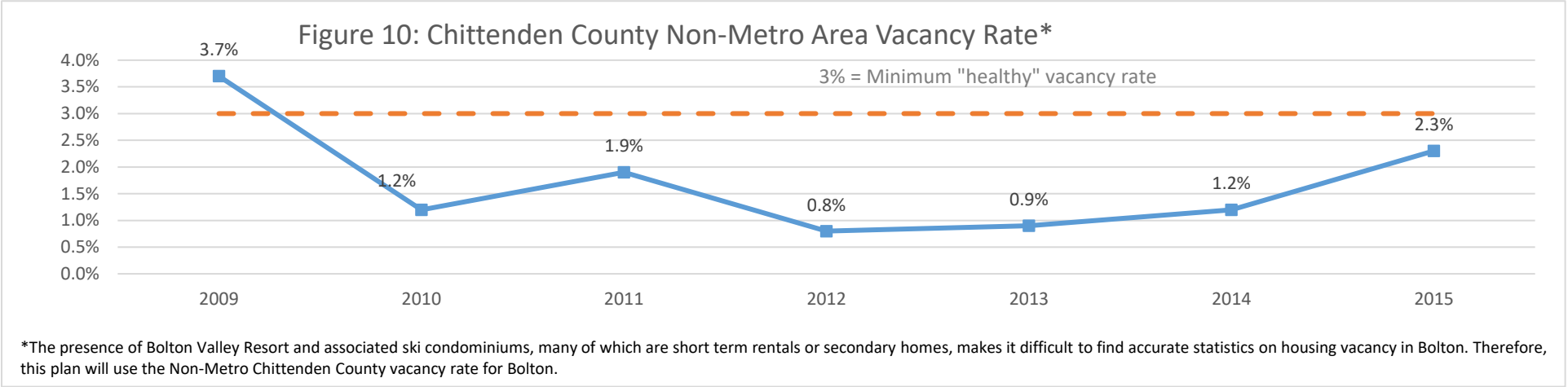
- Owner-occupied housing: In 2010, the US Census counted 13 vacant homes in Bolton. It is assumed that these homes were for sale, as they were neither for rent nor seasonal homes. This was equal to 2.2% of all housing units in Bolton.
- Rental housing: In 2010, the US Census counted 25 vacant homes for rent in Bolton, or 28% of Bolton's rental properties.
- The Burlington-based research firm Allen and Brooks compiles annual counts of rural rental vacancies (Chittenden County Non-Metro Area). These estimates are likely more accurate for Bolton than the information reported from the US Census and the American Community Survey, for the reasons discussed above. In 2015, the Chittenden County Non-Metro Area rental vacancy rate was 2.3% (see below).

	2000		2010	
	Units	% of Bolton's Total Housing Units	Units	% of Bolton's Total Housing Units
Vacant housing units	44	10.7%	115	19.1%
Vacant seasonal homes	31	7.5%	68	11.3%
Vacant, not seasonal*	13	3.2%	47	7.8%
For rent	1	0.2%	25	4.2%
Other vacant	6	1.5%	13	2.2%
Source: US Census				

*US Census (10-years counts through 2010)

‡American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.



*US Census (10-years counts through 2010)
‡American Community Survey (2014 estimates) unless otherwise indicated.
Links to specific tables can be found in the associated spreadsheets.

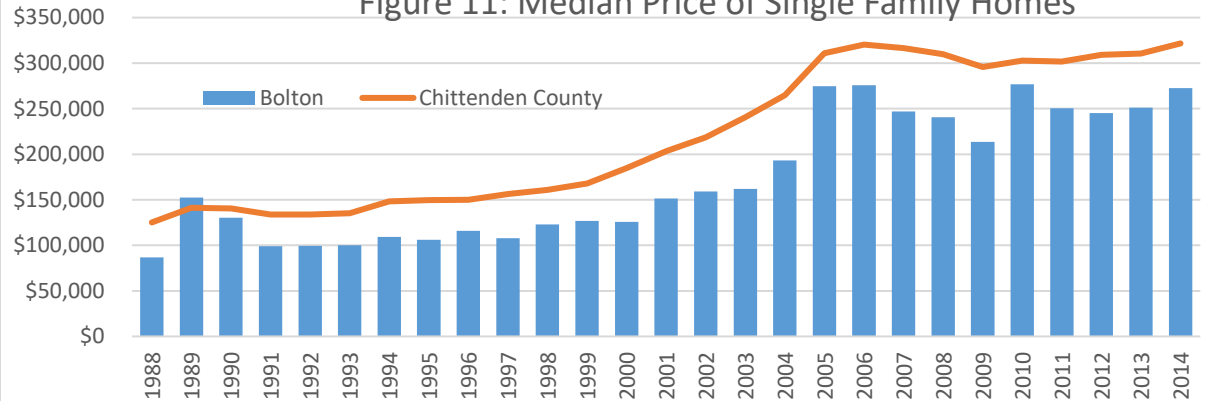
People Data Profile

Housing Prices

Although Vermont was largely shielded from the housing bubble and subsequent bust experienced by the United States in the 2000s,¹² home prices in Vermont, Chittenden County and Bolton all rose much faster between 1999 and 2007 than in the previous decade. Home prices in Chittenden County and Bolton have stabilized since 2007 (see below).¹³

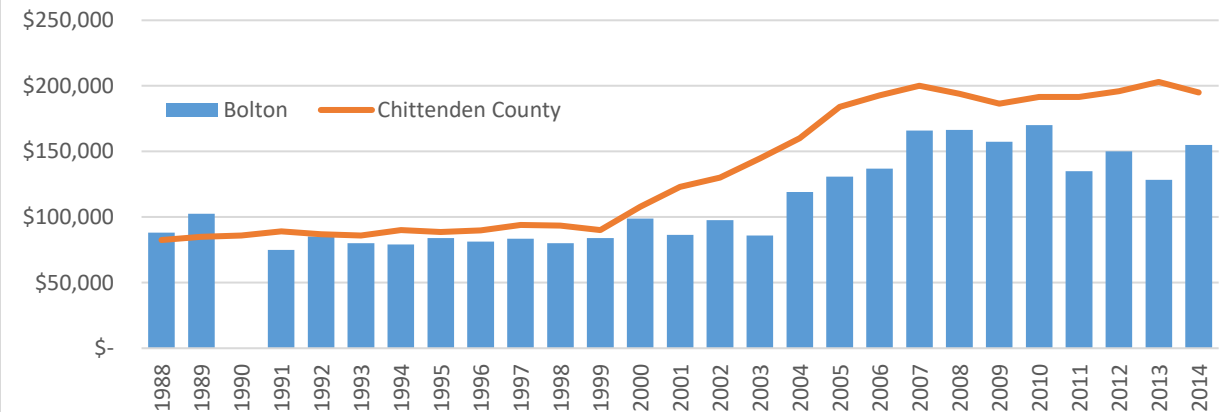
- Bolton's median cost of housing is lower than the median for Chittenden County (see below).
- Single family homes are less expensive in Bolton, and consistently has been since 1990.
- There is a significant difference between the cost of condominiums in Bolton and the cost of condominiums in Chittenden County as a whole. Most condominiums in Bolton are located at the Bolton Valley Resort.

Figure 11: Median Price of Single Family Homes



Source: Vermont Department of Taxes via HousingData.org

Figure 12: Median Price of Condominiums



Source: Vermont Department of Taxes via HousingData.org

¹² <http://www.theatlantic.com/business/archive/2009/08/maybe-we-should-all-be-more-like-vermont/23463/>

¹³ Vermont Department of Taxes, HousingData.org

People Data Profile

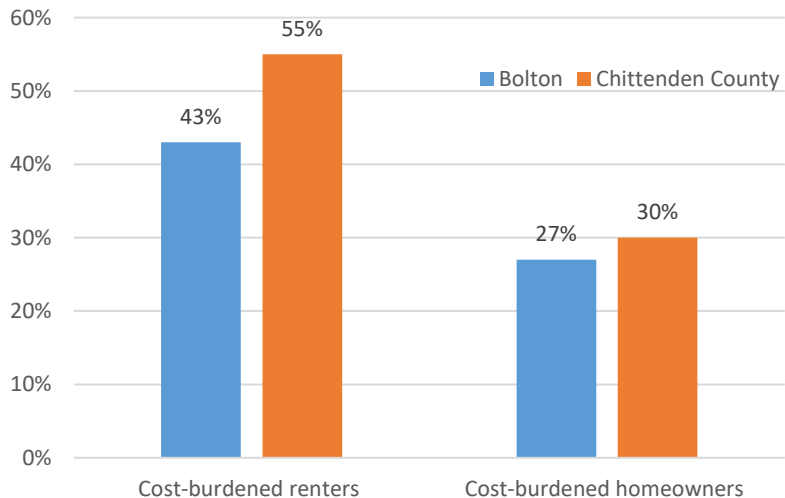
Housing Affordability

Rather than measuring housing costs alone, housing affordability is better determined by measuring both housing costs and transportation costs. In Bolton, as in many rural places, housing costs are lower than in more urban areas, but transportation costs are higher because of longer commutes to places of employment.

- Fewer households in Bolton are considered “cost-burdened” than in the county as a whole. Cost-burdened households are defined as those paying more than 30% of household income on housing costs.
- However, transportation costs are higher in Bolton.
 - An average resident of Bolton spends 25% of their income on transportation costs, while an average resident of Chittenden County spends 22% of their income on transportation.

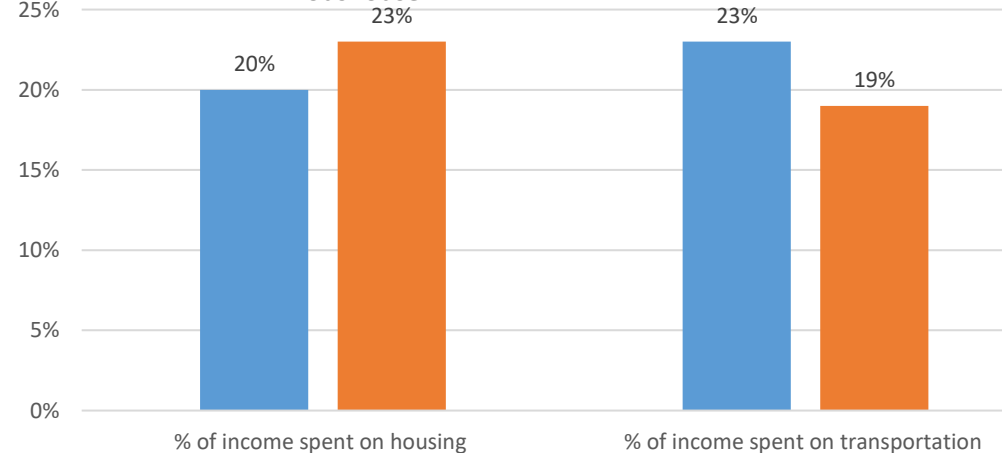
Although housing costs are lower in Bolton than in Chittenden County as a whole, housing is not necessarily affordable (as defined as costing 30% of household income), both for current residents and those considering moving to Bolton. Based on the assumption that a household can only afford to spend 30% of its income on housing, the analysis below shows the level of income needed to buy or rent various median-priced types of housing in Bolton.

Figure 13: Housing Affordability for a Median-Income Household



Source: 2010-2014 American Community Survey

Figure 14: Housing and Transportation Costs of a Median-Income Household



Source: HUD Location Affordability Index

**US Census (10-years counts through 2010)
‡American Community Survey (2014 estimates) unless otherwise indicated.
Links to specific tables can be found in the associated spreadsheets.*

People Data Profile

Table 6: Housing Affordability Indicators in Bolton, 2014

In Bolton, the average annual wage in 2014 was \$25,433. A person or household making this wage could not afford any type of housing in Bolton.

Housing Type	2014 Median Cost	Needed Annual Income to Rent or Buy	Average Bolton Wage	Gap between Needed and Actual Income
Average of all types	\$173,500	\$51,227	\$25,433	(\$25,794)
Single Family Home	\$300,000	\$87,976	\$25,433	(\$62,543)
Condominium	\$155,000	\$45,868	\$25,433	(\$20,435)
Mobile Home with Land	\$120,250	\$35,659	\$25,433	(\$10,226)
Two-Bedroom Apartment (rented)	\$1,309	\$52,360	\$25,433	(\$26,927)
Assumptions: Homebuyers: 5% Down Payment, 30% payment ratio, 0-point loan, statewide avg. property taxes, avg. PMI, insurance premiums.				

In Bolton, the median gross income for a single person in 2014 was \$46,547. A person with this income could afford to buy a condominium or a mobile home with land in Bolton.

Housing Type	2014 Median Cost	Needed Annual Income to Rent or Buy	Average Income	Gap between Needed and Actual Income
Average of all types	\$173,500	\$51,227	\$46,547	(\$4,680)
Single Family Home	\$300,000	\$87,976	\$46,547	(\$41,429)
Condominium	\$155,000	\$45,868	\$46,547	\$679
Mobile Home with Land	\$120,250	\$35,659	\$46,547	\$10,888
Two-Bedroom Apartment (rented)	\$1,309	\$52,360	\$46,547	(\$5,813)
Assumptions: 5% Down Payment, 30% payment ratio, 0-point loan, statewide avg. property taxes, avg. PMI, insurance premiums.				

In Bolton, the average household income is \$75,568. A person or household with this income could afford to buy a condominium or a mobile home with land, or rent a two-bedroom apartment.

Housing Type	2014 Median Cost	Needed Annual Income to Rent or Buy	Average Income	Gap between Needed and Actual Income
Average of all types	\$173,500	\$51,227	\$75,568	\$24,341
Single Family Home	\$300,000	\$87,976	\$75,568	(\$12,408)
Condominium	\$155,000	\$45,868	\$75,568	\$29,700
Mobile Home with Land	\$120,250	\$35,659	\$75,568	\$39,909
Two-Bedroom Apartment (rented)	\$1,309	\$52,360	\$75,568	\$23,208
Assumptions: 5% Down Payment, 30% payment ratio, 0-point loan, statewide avg. property taxes, avg. PMI, insurance premiums.				

Source: Vermont Housing Finance Agency Housing Database

*US Census (10-years counts through 2010)
 ‡American Community Survey (2014 estimates) unless otherwise indicated.
 Links to specific tables can be found in the associated spreadsheets.

People Data Profile

Historic Bolton

The range of historic sites in Bolton exemplifies and documents the way the land has been settled and used over several thousand years, including Bolton's 250+ year history as a town. Bolton has never been heavily populated; historically it developed primarily as a mill town with significant dairy farming. Over the last 50 years, much of the town's development has been concentrated around the Bolton Valley Resort. Much of the town's history is no longer evident on the land – many former mills, homes, commercial and civic buildings were destroyed in floods, removed following purchase by the federal government (for the Ethan Allen Firing Range), or torn down after abandonment. Bolton currently has two sites listed on the National Register of Historic Places – the Preston-Lafreniere Farmstead and Honey Hollow Camp – and fifteen on the Vermont State Register of Historic Places. These historic sites were inventoried in 1976 and are shown on [Map X](#) and listed in the Town Profile. Register listings have not been updated.

Numerous archeological sites and historic landscape features, ranging from Native American rock shelters and camp sites to old cellar holes and stone walls, are also found in Bolton. Most prehistoric sites identified to date are located in the Winooski River valley – a major travel route through the Green Mountains. In order to protect these sites, their locations are not identified on plan maps. The Stevens Mill Historic District, consisting of four buildings used to house workers at the C. P. and G. W. Stevens Lumber mill, is the only historic district currently listed in Bolton. The town also has two historic cemeteries, dating from the 1820s. Identified historic resources, including listed structures, are protected to a limited extent under the town's land use regulations, which include provisions allowing for adaptive reuse.

There are other known historic sites and features that are significant and old enough to qualify for listing. Inventories of existing historic sites in West Bolton and Honey Hollow were initiated in recent years, but never completed, as required for historic district nomination. UVM also conducted a census of Bolton's historic barns in 2010. The locations of two Irish railroad worker camps ("Dublin" and "Cork") on Bolton Flats – associated with the 1846 "Bolton Riots" – are also generally known, but have yet to be fully documented. Bolton Valley Resort is also now more than fifty years old – and though not necessarily "historic," retains much of its character as a 1960s ski resort.

**US Census (10-years counts through 2010)*

‡American Community Survey (2014 estimates) unless otherwise indicated.

Links to specific tables can be found in the associated spreadsheets.

Community Profile: Place

Resilience

For detailed information on the future hazards that Bolton is likely to face and the way the town is mitigation against them, please see the current Bolton All Hazards Mitigation Plan ([hyperlink](#)).

For detailed information on emergency preparedness in Bolton, please see the current Bolton Local Emergency Operations Plan ([hyperlink](#)).

Floodplain and River Corridors

Much of the land along Route 2 in Bolton is within the Special Flood Hazard Area, meaning that the Winooski River has a 1% chance of flooding the area every year.

Several of Bolton's critical facilities are either located in the Special Flood Hazard Area, in the River Corridor, or would be difficult to access during a flood.

Parcels in the Floodplain by Area of Town	
Road	Number of Properties in the Flood Plain
Rt. 2/Theodore Roosevelt Hwy – West of I-89	14
Rt. 2/Theodore Roosevelt Hwy – East of I-89	4
Joiner Brook Ln	6
Duxbury Rd	7
TOTAL	31
Source: Town of Bolton Land Records	

Critical Facilities in Bolton Located in Hazard Areas	
Facility Type	Hazard Area
Smilie School (Primary Emergency Shelter)	River Corridor
Town Garage	Special Flood Hazard Area
Town Office	Not located in a hazard area, but access would likely be blocked by flood waters during a flood emergency
Fire Department	

Source: VCGI and Town of Bolton All Hazards Mitigation Plan

Federal Funding Received for Disasters

Bolton has received funding for eight federally-declared disasters since 1990, seven related to flooding and/or severe storms and one snow emergency.

FEMA-declared disasters and snow emergencies in Bolton, 1990-2015			
Date (FEMA ID#)	Type of Event	Total Repair Estimates	Description of Damage
June 1990 (DR 875)	Flooding	\$1,282,529	Large sections of Bolton Valley Access Road were completely washed out. Road was repaired with more culverts and larger culverts, new ditching, new gravel. This road is a Federal Aid Highway and is therefore not eligible for FEMA funding, but rather received money from the State of Vermont.
January 1996 (DR 1101)	Flooding	\$29,400	Damages to Bolton Valley Access Road, but less extensive than in 1990. Repairs to gravel road shoulders as well as new ditching constructed. This road is a Federal Aid Highway and is therefore not eligible for FEMA funding, but rather received money from the State of Vermont.
July 1998 (DR 1228)	Flooding	\$37,435	Shoulder repair and new gravel on Stage Road, Mill Brook and Notch Rd. Minor repairs on Bolton Valley Access Road
April 2001 (EM3167)	Snow Emergency	\$8,881	Increased contractual costs for snow removal
June 2011 (DR 1995)	Flooding	\$37,046	Repair to road damage on the Notch Road, Duxbury Road and Honey Hollow Road.
September 2011 (DR 4022)	Tropical Storm Irene (flooding)	\$105,950	Repair of road washouts by Joiner Brook, as well as repair of road damage on Honey Hollow Road and at several sites along Duxbury Road.
August 2013 (DR 4140)	Flooding	\$25,702	Repair of road washout on Honey Hollow Road, York Road, the Notch Road and Stage Road.
June 2015 (DR 4232)	Severe Storm and Flooding	\$334,128.44	Repair of road and culvert washout on Honey Hollow Road and Duxbury Road and road washout on the Notch Road. Bolton Valley Access Road also experienced damage but, as a Federal Aid Highway, was not eligible for FEMA funding.
<i>Sources: Federal Emergency Management Agency Data</i>			
<i>Dollar value figures represent the total estimated repair costs for damages suffered to municipal resources. This table does not include damage claims submitted to FEMA by non-municipal organizations or by private individuals or businesses.</i>			

Several property owners in Bolton also received individual assistance from FEMA after Tropical Storm Irene. One home buyout was funded by FEMA, and the Town received a Hazard Mitigation Planning Grant to complete five home elevations along Route 2. A further three elevation projects are pending.

Hazardous Substances

Several locations storing hazardous materials can be found throughout Bolton, and the presence of railroad tracks and Interstate 89 means that hazardous materials are regularly transported through the Town as well.

Vulnerable Infrastructure

Three bridges in Bolton are located in the Special Flood Hazard Area, and two are located in both the River Corridor Protection Area and the Special Flood Hazard Area.

Multiple culverts in Bolton are at risk of being washed out during rain events due to their incompatibility with the body of water they are intended to carry. Incompatibility means that the passage of water through the culvert is somehow impeded.

Other Federal and State Dollars Received after Tropical Storm Irene		
Street	Registrations	Amount
Duxbury Road	Individual Assistance	\$9,359
Route 2	Individual Assistance	\$1,670
Route 2	Individual Assistance	\$10,384
Route 2	Home buyout funded	\$68,295
Route 2	Hazard Mitigation	\$411,721
Source: Federal Emergency Management Agency		

Fuel and hazardous materials storage sites in excess of 10,000 lbs	
Owner / Facility	Type of Substance
Bolton Sunoco	Gasoline
Amerigas	Propane
Fernwood Manor Mobile Home Park	Various Chemicals Related to Drinking Water Treatment
Green Mountain Power	Lead-acid Batteries
Bolton Valley Resort	Various fuels
RCC Robbins	Lead Acid Batteries and Sulfuric Acid
Verizon Wireless	Sulfuric Acid

Source: Vermont Department of Emergency Management and Homeland Security Tier II Database

Bridges in the Special Flood Hazard Area or River Corridor Protection Area		
Body of Water	Bridges crossing that body of water located in the Special Flood Hazard Area	Bridges crossing that body of water located in both the Special Flood Hazard Area and the River Corridor Protection Area
Mill Brook	1	0
Joiner Brook	2	2

Source: Bolton All Hazards Mitigation Plan; VCGI, VTrans and CCRPC.

Culverts with a geomorphic compatibility rating of “Mostly Incompatible”		
Road Name	Location Details	Stream Name
Bolton Valley Access Road	At intersection for Catamount Ski Trail	Tributary to Joiner Brook
Bolton Valley Access Road	Just down the road from sugar shack building on left	Tributary to Joiner Brook
Bolton Valley Access Road	Sharp bend 1/2 way up steep hill	Joiner Brook
Catamount Ski Trail	Directly above Bolton Valley Access Road culvert	Tributary to Joiner Brook
Catamount Ski Trail	Second culvert on the Catamount Ski Trail System	Tributary to Joiner Brook
Honey Hollow Road		Preston Brook
Nashville Road	Just above turn to West Bolton Country Club & down from West Bolton four corners	Tributary to Mill Brook
Parking Lot	Bolton Valley Cross Country Ski parking/start lot	Joiner Brook
Route 2		Duck Brook
These structures are mostly incompatible with current form and process, with a moderate to high risk of structure failure. Re-design and replacement planning should be initiated to improve geomorphic compatibility.		
Source: Town of Bolton All Hazards Mitigation Plan		

Recreation

Bolton’s myriad recreational resources are some of the things the Town’s residents value most. When asked why they chose to live in Bolton, 62% answered “I like being close to outdoor recreation like hiking and skiing.” The Bolton Valley Resort is one of the only commercial entities in Bolton that is based on the Town’s natural and recreational resources. The Resort bring XXXX visitors to the town annually, with peak season in January and February. As discussed in the Economy section of this plan, the Resort is also key to Bolton’s economy.

Bolton Valley Resort Trails	
Trail Type	Size
Downhill skiing and snowboarding	71 trails and 3 terrain parks
Nordic Trails	100 km of trails

Bolton has over 60 miles of trails for various types of recreation.

Trails in Bolton		
Trail Name	Recreation Type	Approximate Miles in Bolton
Catamount Trail	Crosscountry Skiing and Snowshoeing	13.6
Cross Vermont	Bicycling	4
Long Trail	Hiking	16.5
Preston Pond Conservation Area	Hiking	4
Vermont Association of Snow Travelers	Snowmobiles	15
Winooski River Paddling Trail	Paddling	9
Total Trail Miles		62.1

Additionally, many other recreational resources exist in Bolton. Two other significant resources are the many rock climbing areas throughout town and the Bolton Potholes, a swimming area that has created management issues for the Town recently (see the discussion in the Recreation section of this plan).

Other Recreational Resources in Bolton		
Name	Type	Size
Bolton Quarry, West Bolton Cliffs	Outdoor rock climbing	>30 acres
Bolton Potholes	Swimming hole	Not defined precisely; the area is about 9 acres and contains 5 waterfalls

Natural Resources

Bolton's natural resources are extensive and are uniquely well preserved compared to much of the rest of Chittenden County. Residents also value Bolton's unique natural resources—90% of residents surveyed in Fall 2015 cited “natural beauty or other natural resources” as one of things they valued about Bolton.

Geological Resources

Bolton has many acres of sand and gravel, and there is one large commercial gravel pit and two large private gravel pits in the Town. The State of Vermont gravel pit on Duxbury Road was decommissioned in 2016, but stormwater and erosion issues have continued since decommissioning. During rain events, it remains common for gravel and soil to wash into Duxbury Road from the former pit. This has occurred a number of times since the pit's decommissioning.

Geological Features			
Sand and Gravel Deposits	Acres	% of Town	Active Pits
Sand	143.44	0.53%	0
Sand & Gravel	1154.31	4.25%	3
Source: Agency of Natural Resources Data			

Due to its steep slopes and mountainous terrain, Bolton does not have a great deal of primary agricultural soils. Those soils that do exist in the Town are located along the Winooski River and in West Bolton, and many of them are part of the floodplain.

Primary Agricultural Soils in Bolton		
Agricultural Soils	Acres	% of Town
Prime Soils	654.87	2.41%
Soils of Statewide Significance	317.99	1.17%
Source: Vermont Agency of Natural Resources		

Surface Waters

The most prominent source of surface water in Bolton is the Winooski River which runs for approximately nine miles through town. Other surface waters include Duck, Gleason, Goose, Joiner, Mill, and Preston Brooks and Goose and Preston Ponds. Other bodies of water include smaller streams and ponds created by beaver activity or seasonal run-off as well as man-made ponds for private use and snow making.

Ground Waters

The vast majority of Bolton residents depend on ground water as their drinking water source. There are 220 private wells in Bolton. Ground water serves as the source for residential single-family wells in Bolton as well as the multi-user system (Catamount Bolton Water and Sewer) serving the Bolton Valley Resort area.

Wetlands

Bolton contains 15 different wetland community types spread over approximately 450 acres, shown on **Map XX**. Seven of these wetlands are considered significant by the State. The 120 acres of Bolton's wetlands that lie in the Winooski River valley are vital to flood control. The wetlands are made up of "forests" that capture floodwaters, lessening their effect on developed areas. The roots of the wetland stabilize the banks of the Winooski River, preventing erosion. As of the writing of this plan, Arrowwood Environmental is in the process of completing a detailed inventory of floodplain habitat along the Winooski River.

Wetland Summary	
Wetland Type	Acreage
Class 2 Wetland (VSWI approved)	254.77
Additional acres of Presumptive Class 2 Wetlands shown in the Wetland Advisory Layer (includes Winooski River)	459.34
Additional acres of Presumptive Class 2 Wetlands shown in the Wetland Advisory Layer (excludes Winooski River)	308.84
Number of Confirmed Vernal Pools	11
Source: Arrowwood Science to Action Report and Vermont Significant Wetlands Inventory	

Wetland Types with Over 5 Biological Communities	
	"floodplain trees also
Wetland Type	Acreage
Agricultural	10
Alder Swamp	7
Beaver Complex	21
Swamp	8
Seepage Forest	7
Old Field	10
Pond	16
Seep	13
Marsh	19
Floodplain Forest	22
Vernal Pool	20
Source: Arrowwood Science to Action Report and Vermont Significant Wetlands Inventory	

Significant Wetlands in Bolton			
Significant Wetlands	Acreage	Wetland Types Over 5 Acres	Acreage
Gleason Brook Swamp	1.4	Agricultural	21.2
Pinneo Brook West	0.17	Beaver Complex	151.9
Bolton Riparian Corridor	127	Swamp	15.8
Duck Brook Beaver Wetland	49.1	Seepage Forest	15.4
Preston Pond Wetlands	20.1	Pond	12.9
Gleason Brook Beaver Wetland	30.5	Marsh	51.6
Summit Pools	0.86	Floodplain Forest	155.7
Source: Arrowwood Science to Action Report and Vermont Significant Wetlands Inventory			

Forests

Forests are one of the primary natural resources of Bolton. Almost 93% (25,000 acres) of Bolton is covered in forest. Mast stands are concentrated groups of trees, such as oaks, with abundant fruit and nut production. These stands are a critical supply of food for many types of wildlife. Mast stands that are intact and isolated from human contact are key to the survival of wildlife such as bears, deer and turkeys. Nineteen different forest types have been identified in Bolton by the Science to Action report.

Logging

In 2015, over 7,000 acres of forested land in Bolton had Current Use status, meaning that it is governed by a forestry plan and has the potential to be used for forest management.

Forestry Current Use Parcels in Bolton*

Year	Parcels in Current Use
2006	24
2007	26
2008	25
2009	26
2010	28
2011	27
2012	27
2013	28
2014	31
2015	32

*No parcels are currently enrolled in the Agricultural Current Use Program in Vermont

Source: Town of Bolton Land Records

Significant Upland Natural Communities		
	Acreage	Number of Communities
Boreal Acidic Cliff	8.1	7
Boreal Outcrop	5.7	10
Dry Oak Forest	57.6	4
Dry Red Oak-Pine Forest	38.9	9
Hemlock Forest	32.4	4
Hemlock-Northern Hardwood Forest	1439.3	58
Hemlock-Red Oak-White Pine Forest	31.8	6
Lowland Spruce-Fir Forest	18	2
Mesic Red Oak-Northern Hardwood Forest	1917.4	29
Montane Spruce-Fir Forest	2635	14
Montane Yellow Birch-Red Spruce Forest	2057	9
Montane Yellow Birch-Sugar Maple-Red Spruce Forest	68.9	1
Northern Hardwood Forest	14910.9	61
Northern Hardwood Talus Woodland	14.6	6
Plantation	17.1	4
Red Pine Forest or Woodland	39.9	12
Red Spruce-Health Rocky Ridge Forest	51.8	13
Red Spruce-Northern Hardwood Forest	856.9	78
Rich Northern Hardwood Forest	142.5	7
River Sand or Gravel Shore	4.8	8
Rivershore Grassland	2.7	5
Sugar Maple-Hophornbeam Forest	60.8	8
Temperate Acidic Cliff	33.7	35
Temperate Acidic Outcrop	29.6	48
Temperate Hemlock Forest	12.9	2
White Pine-Northern Hardwood Forest	168.6	16
Source: Arrowwood Environmental, Science to Action Report		

Wildlife

Over 50 unique wildlife species have been identified in Bolton, including elusive carnivores like bobcats and threatened and endangered species like the little brown bat.

Bolton is one of the few towns in Chittenden County that still has large areas of un-fragmented forest that only have occasional human presence. These forests provide “core habitat,” which many animals depend on for survival. Bolton has six “Contiguous Habitat Units” (CHU), covering approximately 85% of the town.

Bolton’s conifer forests also provide winter habitat for deer (“Deer Wintering Yards”) by sheltering them from snow and cold temperatures (See Map X). High elevation spruce-fir forests have created excellent habitat for breeding birds, especially Bicknell’s Thrush (See Map X).

Wildlife travel corridors are essential to wildlife survival because they connect habitats and allow wildlife to move to new locations and range freely between otherwise unconnected Contiguous Habitat Units, depending on their seasonal needs and life cycles. Wildlife travel corridors often cross roads in Bolton, leading to potential danger to both animals and humans (see Map X.)

Bolton also has an abundance of steep, rocky terrain which provides Ledge, Talus & Cliff Habitat. Vertical rock structures provide habitat for a few species, most notably nesting peregrine falcons. Broken ledges create habitat for a wider variety of animals, especially bobcats, coyotes, and fishers.

Contiguous Habitat Units in Bolton		
CHU Name	Towns	Acreage
Cemetery	Jericho/Bolton	101.83
Bolton Mountain	Jericho/Bolton	15,191.98
Preston Pond	Richmond/Bolton	2,106.24
Camels Hump	Huntington/Richmond/Bolton	19,162.32
Snipe Island	Richmond/Bolton/Jericho	2,144.63
Source: Arrowwood Environmental, Science to Action Report		

Rare, Threatened and Endangered Species

According to the State of Vermont, there are 18 species of Rare, Threatened and Endangered plants and animals in Bolton. To protect these species, their type and location are not included in this plan.

Conserved Land

Approximately 77% of Bolton's land is conserved, either through ownership by a government entity or private conservation group or through easements. Bolton's conserved land totals 20,328.6 acres, and its assessed value is \$10,448,400. See [Map XX](#), which shows conserved land in Bolton.

Conserved Land Summary		
Owner	Total Acres	% of Bolton's Total Land
State of Vermont (Camels Hump State Park, Mt. Mansfield State Forest, Robbins Mountain Wildlife Management Area, Bolton Valley Nordic Lands and others)	13,471.50	51%
United States Government (Ethan Allen Firing Range)	2,285.90	9%
Town of Bolton	469.2	2%
Green Mountain Club	3,414.20	15%
Villeneuve/O'Malley	489	
Jericho Land Trust	122.8	
CRAG, VT	56	
UVM Outing Club	20	
TOTAL CONSERVED LAND	20,328.60	77%
Value that cannot be taxed	\$10,448,400	
Source: Town of Bolton Land Records		

Land Use

Bolton is currently largely forested, with less than 4% of the land area of the Town developed. Most of the Town's development is located around Route 2, Bolton Valley Resort and West Bolton.

Future development potential in Bolton is limited. Even in the approximately 23% of Bolton that is not formally conserved, much of the land is not appropriate for development because of its natural features. Many natural features, such as wetlands, flood zones and steep slopes, mean that land is not able to be developed. Poor septic soils likely also mean that land cannot be developed. A GIS analysis of these features shows that approximately 1160 acres of developable land remain in Bolton, about 4% of the Town's land area. About 75% of these acres are in areas where the Town hopes to see development concentrated, rather than in the Forest and Conservation Districts. West Bolton has the greatest potential for future development, with 164.8 acres with development potential, or 47% of the area.

Current Land Use in Bolton		
Land Cover Classification	Acres	Percentage of Total
Open Water	127.38	0.47%
Developed, Open Space	676.44	2.51%
Developed, Low Intensity	249.30	0.92%
Developed, Medium Intensity	93.02	0.34%
Developed, High Intensity	2.82	0.01%
Barren Land (Rock/Sand/Clay)	23.18	0.09%
Deciduous Forest	15794.71	58.53%
Evergreen Forest	2601.97	9.64%
Mixed Forest	6490.74	24.05%
Shrub/Scrub	306.90	1.14%
Grassland/Herbaceous	91.93	0.34%
Pasture/Hay	253.15	0.94%
Cultivated Crops	15.01	0.06%
Woody Wetlands	234.09	0.87%
Emergent Herbaceous Wetlands	23.08	0.09%
TOTAL ACRES	26983.70	
Source: MRLC National Land Cover Database		

Developable Land in Bolton								
	Total Acreage	Impervious & SFHA removed	& Wetlands removed	& River Corridor removed	& >15% Slopes Removed	& >25% Slopes Removed	& Poor Septic Soils Removed*	Percent Developable
RESORT RESIDENTIAL	366.5	347.7	347.7	338.5	205.6	60.7	33.5	9.1%
RESORT VILLAGE	85.3	72.4	72.4	72.4	43.9	27.5	6.0	7.0%
RURAL I	2207.5	1623.4	1605.0	1529.0	1221.8	363.8	166.3	7.5%
RURAL II	5238.6	5194.6	5137.6	5018.7	3712.5	737.4	254.6	4.9%
VILLAGE	130.0	66.4	65.4	53.8	49.0	44.3	15.0	11.5%
FOREST	5767.8	5765.0	5758.2	5750.3	4326.2	637.7	100.9	1.7%
CONSERVATION	12973.8	12872.0	12752.4	12611.9	9661.8	1423.3	419.5	3.2%
PROPOSED HAMLET	350.1	334.0	315.4	307.7	254.7	205.2	164.8	47.1%
Town of Bolton Land Records and Vermont Agency of Natural Resources Data								

Community Profile: Prosperity

Town Governance

Bolton has very few employees and relies heavily on volunteers for town governance. Although a minimal amount of staff support is provided to many of the boards and committees responsible for governing the town, the members are all volunteers.

Town Facilities and Services

Bolton's three buildings and two cemeteries are in various states. The town garage particularly is in need of extensive repairs and flood-proofing.

Table 1: Bolton's Government			
Boards and Committees	Members	Stipend?	Staffed?
Select Board	5	Yes	Yes
Board of Civil Authority	10 (including 5 Select Board members)	No	Yes
Board of Tax Abatement	10 (including 5 Select Board members)	No	Yes
Planning Commission	5	No	Yes
Conservation Commission	6	No	No
Development Review Board	7	No	Yes
Cemetery Commission	3	No	No
Capital Planning Committee	8 (including 2 Select Board members)	No	No
Economic Resources Committee	10	No	No

Table 3: Town Owned Buildings		
Building	Year Constructed	Status
Town Office	2007-2008	The building has adequate space for its current uses, but the configuration of rooms inside the building could be changed to better utilize the space. The building is also energy inefficient and difficult to heat in the winter.
Fire Station	Built 1978, renovated 2012	The building is adequate for its current use.
Town Garage	1994-1995	The building is located in the FEMA .1% Annual Chance Flood Zone (the 100-year floodplain). Elevating the building is impossible because of its use as a garage. Floodproofing the building will be necessary in the future to ensure that equipment is not damaged during flood events.

Table 2: Bolton's Staff and Volunteers	
	Position
Full Time Personnel	Town Clerk and Treasurer
	Assistant Town Clerk and Treasurer
	Highway Foreman
	Road Crew Member #1
Part-Time	Assistant to the Assessor
	Zoning Administrator/DRB Staff Person
	Road Crew Member #2
	Road Crew Member #3
Contract	Assessor
	Delinquent Tax Collector
	Constable and Health Officer
Volunteers	Board Members
	Fire Chief
	Bolton Volunteer Fire Department Members
	Senior Meal Coordinator
	Tree Warden
	Chittenden County Regional Planning Commission Representatives

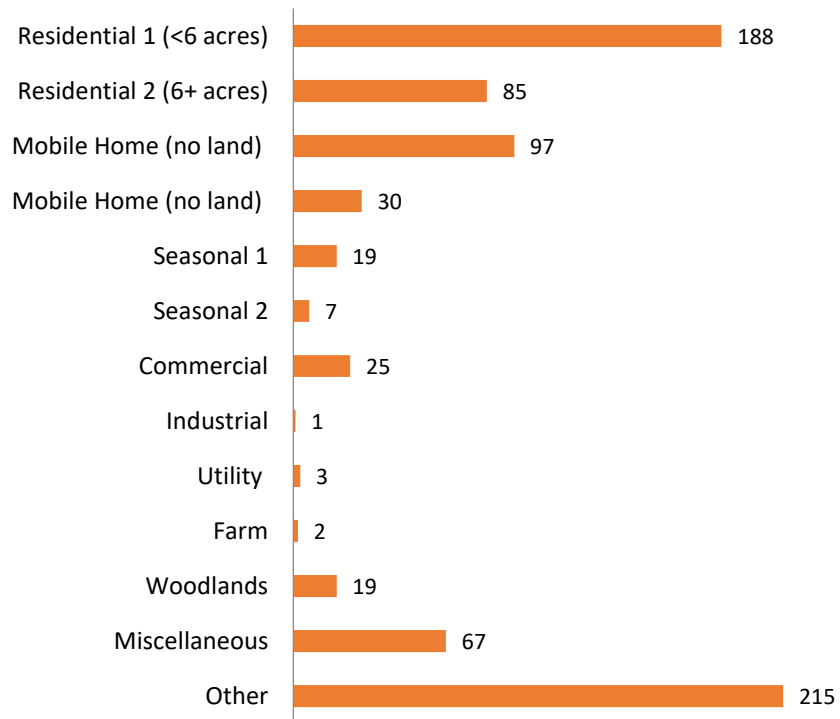
Town Budget

Bolton has a shrinking tax base and an increasing demand for services. As such, the town's most pressing need is determining how to allocate scarce resources.

Grand List Properties and Value

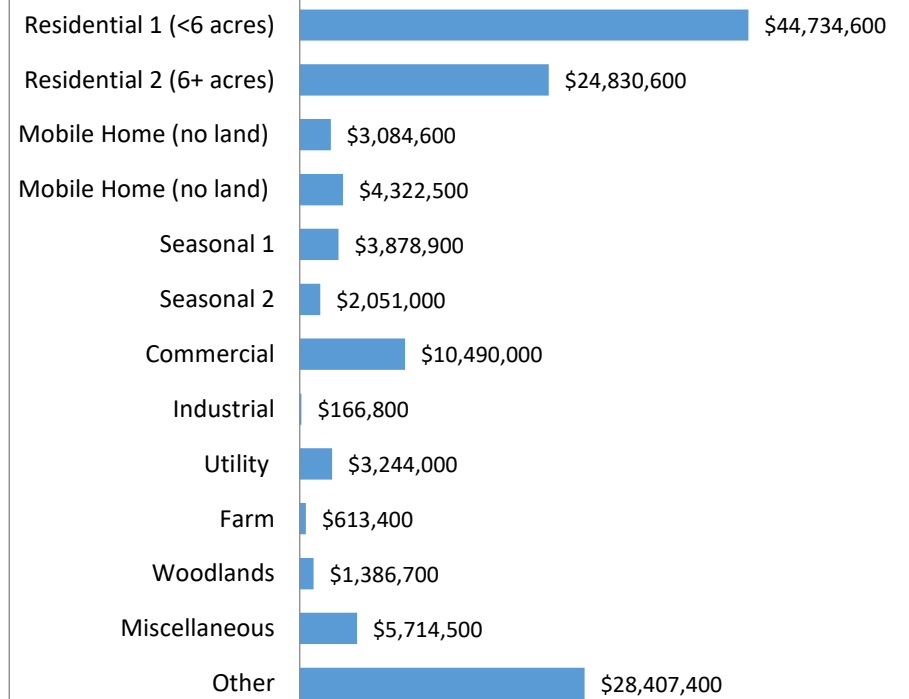
The majority of Bolton's Grand List, both in terms of number of properties and value, is made up of residential properties.

Figure 1: Grand List Properties by Type, 2014



Note: "Other" includes condominiums

Figure 1: Grand List Value by Type, 2014



Note: "Other" includes condominiums

The number of taxable properties and the number of taxable acres fell between 2005 and 2015.

The value of the Grand List has risen slightly since 2009, but its equalized value has fallen. The Equalized Grand List more accurately shows the fair market value of property in a town based on sales prices.

Figure 4: Exempt Properties (#)

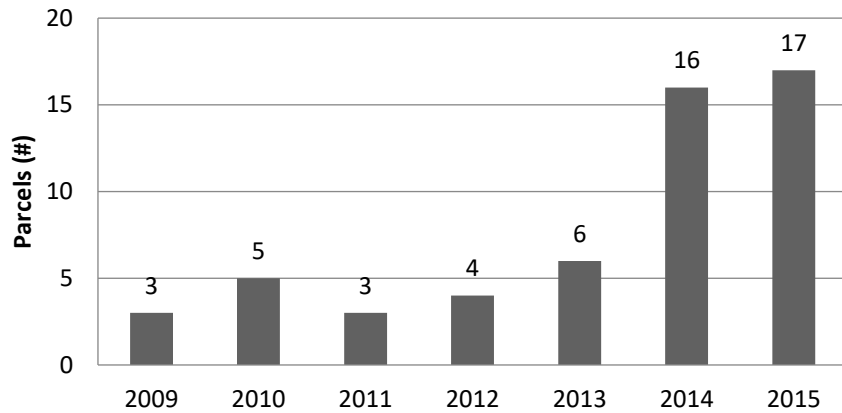


Figure 5: Exempt Parcels (\$)

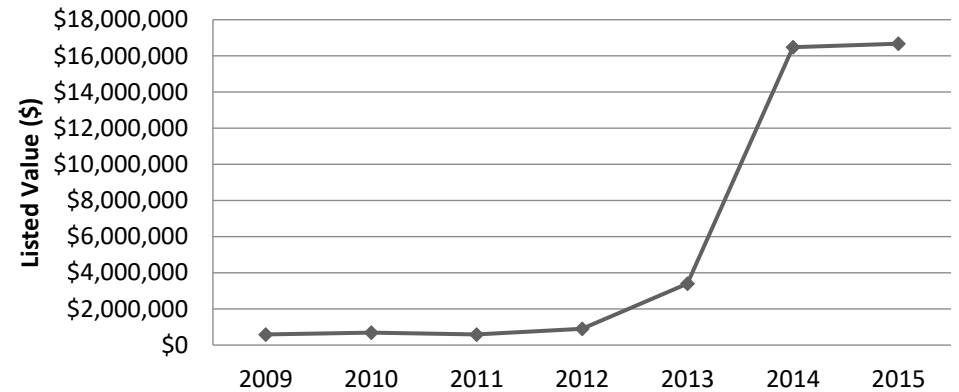
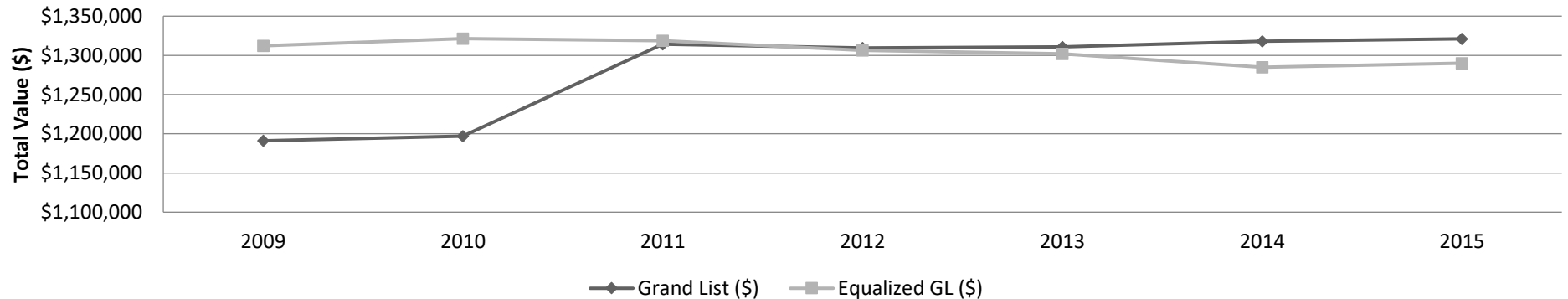


Figure 6: Bolton Grand List



However, the number and value of exempt parcels have risen since 2009, shifting the burden of taxes to other property owners. Though the value of Bolton's exempt parcels ranks low in comparison to the rest of the county (17 of 19 municipalities), the proportion of the value of the town's exempted properties to the total grand list value is second only to Burlington.

Figure 3: Grand List Taxable Properties

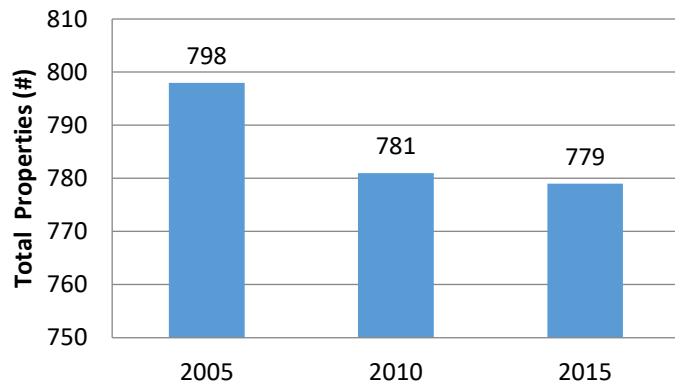
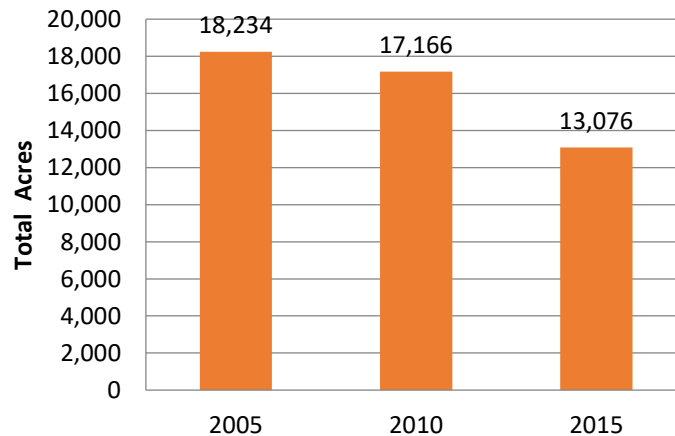


Figure 2: Grand List Taxable Acreage



Municipality	Equalized Grand List Value	Number of Exempt Properties	Value of Exempted Properties	Value of Exempted Properties as a Percent of Total Equalized Grand List Value
Bolton's Rank (of 19)	17	17	14	2
Bolton	\$129,796,000	17	\$16,673,600	12.8%
Buels Gore	\$2,939,000	0	\$0	0.0%
Burlington	\$4,371,811,000	411	\$1,675,489,300	38.3%
Charlotte	\$935,694,000	28	\$25,834,800	2.8%
Colchester	\$2,109,397,000	164	\$192,955,200	9.1%
Essex Jct.	\$1,096,584,000	52	\$103,306,300	9.4%
Essex Town	\$1,424,225,000	88	\$76,460,500	5.4%
Hinesburg	\$578,472,000	51	\$16,631,900	2.9%
Huntington	\$213,491,000	18	\$8,839,300	4.1%
Jericho	\$596,447,000	51	\$46,752,700	7.8%
Milton	\$1,088,278,000	57	\$36,914,790	3.4%
Richmond	\$457,661,000	33	\$27,689,000	6.1%
Shelburne	\$1,576,688,000	72	\$115,560,700	7.3%
South Burlington	\$3,012,957,000	139	\$208,184,800	6.9%
St. George	\$73,856,000	8	\$1,025,300	1.4%
Underhill	\$379,221,000	38	\$21,737,900	5.7%
Westford	\$234,191,000	22	\$5,646,200	2.4%
Williston	\$1,821,513,000	109	\$82,764,788	4.5%
Winooski	\$609,601,000	40	\$43,292,600	7.1%
County Total	\$20,712,822,000	1398	\$2,705,759,678	13.1%
Bolton Percent of County Total	0.63%	1.22%	0.62%	0.08%

Tax Rates and Revenue

Bolton's tax rates and tax revenue have both risen since 2009, with revenue sometimes lower and sometimes higher than town expenditures. However, tax rates and revenue both decreased from 2014-2015 to 2015-2016.

Bolton Tax Rates							
	2009	2010	2011	2012	2013	2014	2015
Total Tax Rate							
Homestead	1.8833	1.9958	1.7987	1.8654	2.0701	2.2346	2.1295
Nonresidential	1.9607	2.0073	1.8174	1.8594	1.9566	2.0348	2.0365
Total Effective Rate							
Homestead	1.7097		1.7928	1.8698	2.0842	2.2918	2.1811
Nonresidential	1.7801		1.8113	1.8638	1.9697	2.0871	2.0857

Figure 7: Tax Rates

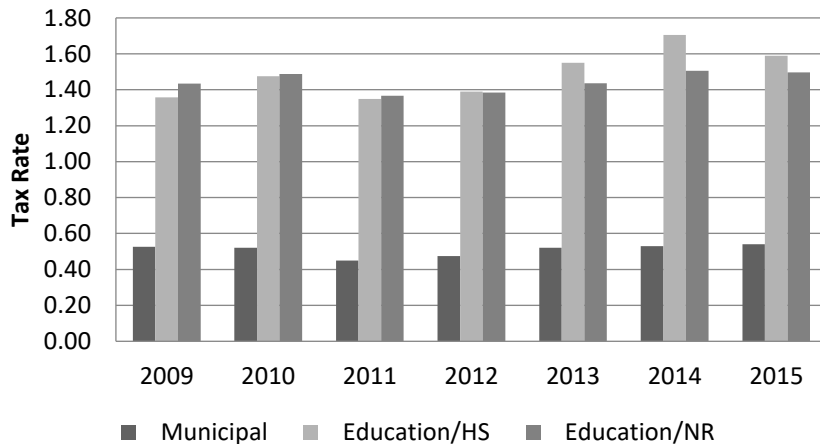
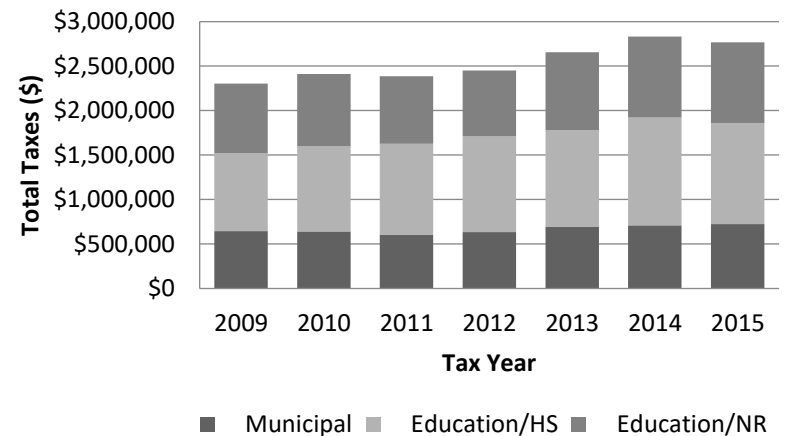


Figure 8: Total Property Tax Revenue

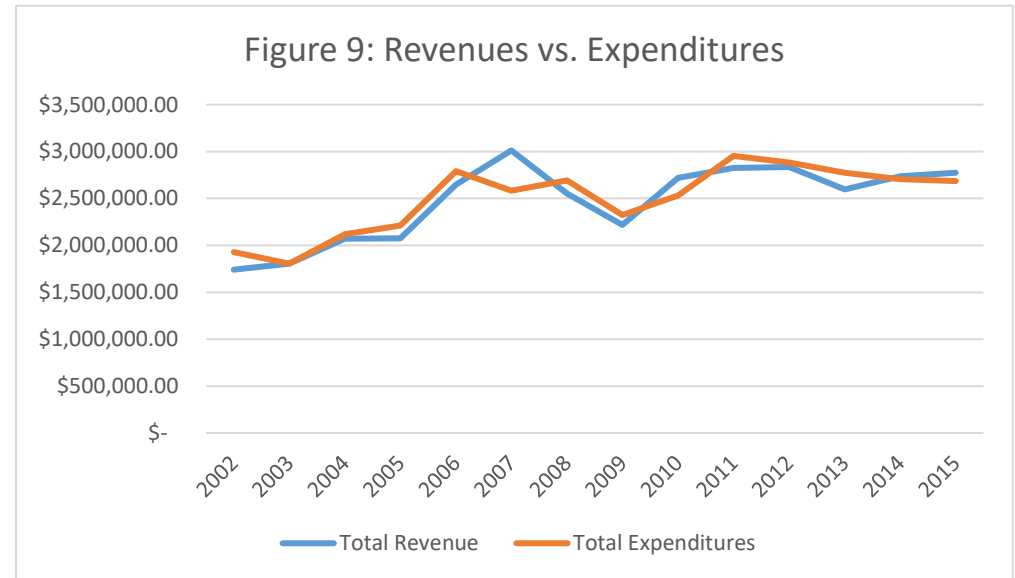


Community Profile for Review – 10/10/2016

Revenue, Expenditures and Town Budget

Since 2002, revenue and expenditures at the town level have largely risen and fallen in synch, with a few exceptions. Bolton's capital budgeting process, which will be completed in 2017, will help ensure predictable levels of annual spending over the next 20 years.

YEAR	TOTAL REVENUE	TOTAL EXPENDITURES
2002	\$ 1,741,452.44	\$ 1,928,160.35
2003	\$ 1,804,243.90	\$ 1,805,754.53
2004	\$ 2,071,133.26	\$ 2,119,730.60
2005	\$ 2,076,772.31	\$ 2,210,900.42
2006	\$ 2,648,952.06	\$ 2,790,926.82
2007	\$ 3,012,204.75	\$ 2,583,112.64
2008	\$ 2,554,077.79	\$ 2,693,504.01
2009	\$ 2,218,179.97	\$ 2,323,026.27
2010	\$ 2,719,275.13	\$ 2,531,784.08
2011	\$ 2,825,281.83	\$ 2,953,718.22
2012	\$ 2,836,614.56	\$ 2,884,894.77
2013	\$ 2,595,354.26	\$ 2,773,592.35
2014	\$ 2,736,255.57	\$ 2,706,487.29
2015	\$ 2,775,660.96	\$ 2,687,166.18



Community Profile for Review – 10/10/2016

Most of Bolton’s revenue comes from property taxes.

However, Bolton also receives revenue from other places, including grants from the state of Vermont.

Revenues Collected in 2014	
Source	Amount
Property Taxes	\$ 2,442,781
Delinquent Taxes, Penalties and Interest	\$ 83,173
Licenses, Permits and Fees	\$ 21,668
Inter-governmental	\$ 170,537
Interest	\$ 347
Miscellaneous	\$ 17,744
TOTAL	\$ 2,736,250

Grants Received from the State of Vermont			
Fiscal Year	Receiving Entity	Purpose	Amount
2015	Town Treasurer	Lister Education Grants to Towns	\$391
2015	Mountain Operations & Development LLC	VGTP STEP III Export Promotion grant	\$1,196
2014	Town Treasurer	HSGP 12	\$26,400
2014	Town Treasurer	FEMA Disaster 4140	\$5,141
2014	Town Treasurer	FEMA Disaster 4140	\$25,703
2014	Mountain Operations & Development LLC	VGTP Export Promotion grant	\$2,326
2013	Town Treasurer	2012 HMGP DR-4001	\$75,106
2013	Town Treasurer	2012 HMGP DR-4001	\$1,502
2013	Town Treasurer	Town of Bolton Town Highway: Duxbury Road	\$9,000
2013	Town Treasurer	Town of Bolton TH1 Pave	\$100,000
2012	Town Treasurer	ER Fall Flood VT11-2 Town of Bolton	\$71,011
2012	Town Treasurer	Town of Bolton FEMA 4022 Disaster	\$105,950
2012	Town Treasurer	Town of Bolton FEMA 4022 Disaster	\$5,886
2011	Bolton Town School District	ARRA Grant for efficient street lights	\$16,914
2011	Bolton Town School District	SFSF	\$36,984
2011	Bolton Town School District	Education Jobs Fund	\$18,412
2011	Bolton Town School District	FRESH FRUIT & VEGETABLE	\$565
2011	Bolton Town School District	FRESH FRUIT & VEGETABLE	\$4,224
2011	Town Treasurer	Town of Bolton Disaster Repairs	\$37,046
2010	Bolton Town School District	Ultraviolet disinfection treatment system & appurtenances	\$20,550
2009	Town Treasurer	Installation of signs and markings on BV Access Rd	\$17,313
Source: Vermont Agency of Administration, Department of Finance and Management			

Community Profile for Review – 10/10/2016

The majority of Bolton's town budget (63% of expenditures) is spent on education. However, Bolton's town budget does not directly fund education. The education tax rate is set by the State of Vermont. Education money is collected by the town via local taxes and directly to the Chittenden East Supervisory Union. Highway expenditures and general government spending, including staff costs, building costs and debt service, claim a further 16% and 14% of the town's expenditures respectively.

Figure 10: Bolton's Budget, Municipal Spending vs. Education Spending

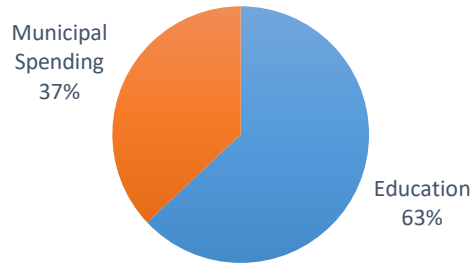
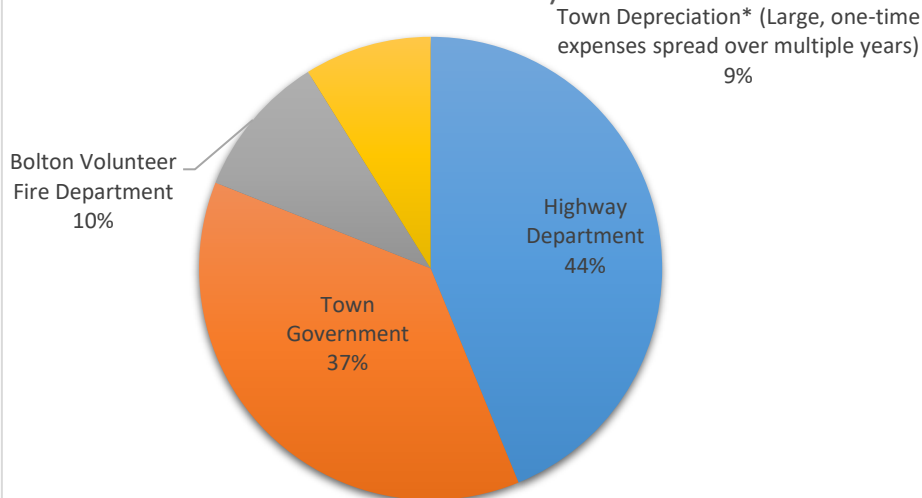


Figure 11: Municipal Spending (without Education)



Highway spending in 2014

Spending Category	Amount
Personnel	\$ 137,206.69
Town Garage	\$ 51,863.70
Equipment	\$ 65,436.94
Materials	\$ 65,897.11
Vehicles	\$ 39,634.26
Supplies	\$ 5,740.43
Construction	\$ 70,138.96
Reserve or Capital Expenses	\$ 1,881.45
Capital Expenses	\$ -
Building Maintenance	\$ -
TOTAL	\$ 437,799.54

Governmental Spending in 2014

Spending Category	Amount
Personnel	\$ 80,890.41
Town Office	\$ 50,153.00
Contracted Services	\$ 65,780.68
Education Assessment	\$ 1,706,957.70
Capital Expenses	\$ 255.00
Debt Service	\$ 98,818.69
Miscellaneous	\$ 76,182.57
TOTAL	\$ 2,079,134.34

Safety

Fire protection in Bolton is provided through the Bolton Volunteer Fire Department, which responds to approximately 70-100 calls every year, around 1/3 of which are related to car accidents. The Department has recently struggled to retain volunteers. Dispatch for the BVFD is contracted through the Town of Shelburne. The department also uses Second Signal, a computer service that makes emergency call information available to volunteer first responders via phone.

Emergency medical services are provided via Richmond Rescue, which answers 100-150 calls in Bolton every year. A significant portion of Richmond Rescue calls in Bolton are related to traffic accidents on I-89 or accidents at Bolton Valley Resort.

Bolton Volunteer Fire Department				
Year	Total Calls	Car Accidents	% of Calls for Car Accidents	Volunteers
2010	94	*	*	13
2011	104	42	40%	15
2012	70	20	29%	15
2013	81	17	21%	16
2014	65	24	37%	16
2015	73	28	38%	11
*2010 data lost during Tropical Storm Irene				

Richmond Rescue						
	General Bolton	Bolton Valley	I-89	Total Bolton Calls	Total Richmond Rescue Calls	% of Richmond Rescue Calls in Bolton
2002	30	51	9	90	582	15.50%
2003	44	44	19	107	568	18.80%
2004	48	42	32	122	591	20.60%
2005	44	45	48	137	582	23.50%
2006	47	53	32	132	546	24.20%
2007	68	47	36	151	561	26.90%
2008	56	39	50	145	563	25.80%
2009	51	40	29	120	524	22.90%
2010	45	40	31	116	507	22.90%
2011	56	32	53	141	509	27.70%
2012	57	44	24	125	539	23.20%
2013	45	40	13	98	513	19.10%
2014	63	30	26	119	562	21.20%
2015	123	26	27	123	549	22.00%

Community Profile for Review – 10/10/2016

Crime Incidence				
Offense Type	Number of Offenses in Bolton	Offense Rate (per 1,000 residents) in Bolton	Chittenden County Offense Rate (per 1,000 residents)	Statewide Offense Rate (per 1,000 residents)
Total	44	37.04	49.92	41.09
Aggravated Assault	1	0.84	0.91	0.78
Burglary/B&E	3	2.53	4.82	5.14
Destruction of Property/ Vandalism	1	0.84	6.89	5.82
Theft from Building	3	2.52	1.02	1.99
Theft from Motor Vehicle	7	5.89	3.08	2.77
Larceny-other	7	5.89	12.94	7.41
Stolen Property	1	0.84	0.87	0.42
Drug/Narcotic Violations	3	2.52	4.01	4.52
Source: Vermont Crime Online, Vermont Department of Public Safety Division of Criminal Justice Services				

Police services in Bolton are provided only in answer to emergency calls. The Vermont State Police answers those calls. However, incidence of crime is very low in the town. Bolton is currently investigating options to contract with neighboring police departments for speed limit enforcement.

Solid Waste Disposal

Bolton produces an amount of solid waste that is proportional to its small population.

Solid Waste Disposal		
	2009	2014
Tons of Waste	916.481	903.7454
Source: Chittenden Solid Waste District		

Communications

Map XX shows cell phone and internet speed coverage in Bolton. Since 2008, three Certificates of Public Good have been issued for projects relating to increasing cell phone coverage.

Certificates of Public Good					
Location	Applicant(s)	Type	Details	Year	Docket #
Ricker Mountain	V Tel Wireless	Additional Antennae	Wireless Telecommunications	2015	8501
Upper Bolton Valley Access Road	Waitsfield Cable	Cable Television		2008	7351
Bolton Valley Resort	Green Mountain Clean Energy LLC	Conversion of meteorological tower to wireless telecommunications tower		2015	8579
2101 Honey Hollow Road	AT&T Mobility	Additional Antennae	Wireless Telecommunications	2013	7973
Bolton Valley Resort	V Tel Wireless & Green Mountain Clean Energy	Denial of Application to convert a temporary meteorological structure to a permanent structure	Related to Docket 7671 below	2013	8072
Bolton Valley Resort	Green Mountain Clean Energy	Temporary Meteorological Tower	To be taken down within 3 years	2010	7671
Upper Bolton Valley Access Road	N/A	Revoking North Valley Cable Systems' CPG authorizing them to establish, maintain and operate cable television systems	Revokes Docket 5083	2016	7350
Source: Vermont Public Service Board					

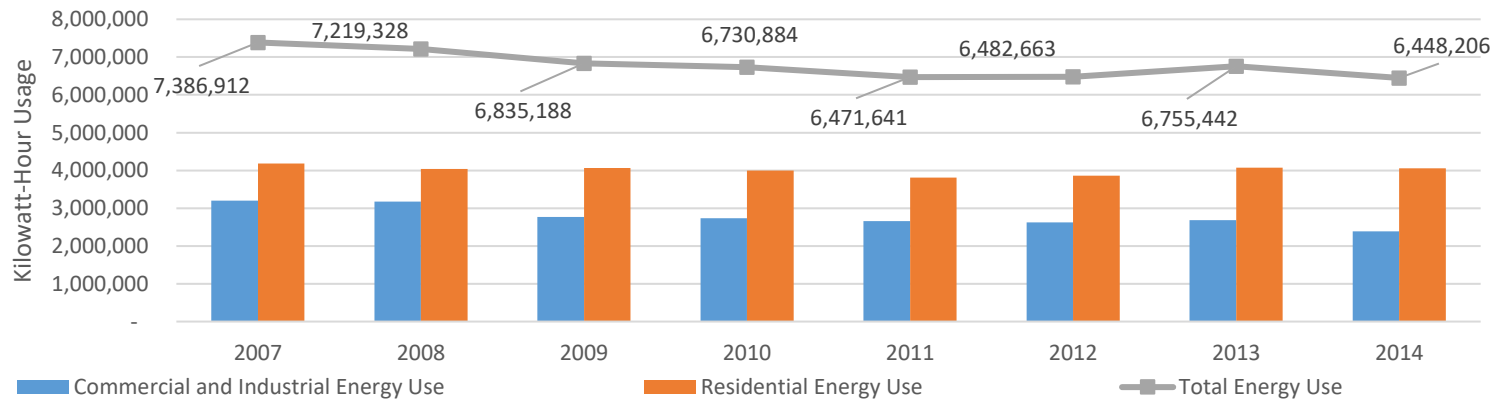
Energy

As advancements in energy efficiency occur over time, the amount of energy used in Bolton has decreased and the amount of energy saved has increased.

Total Energy Use Over Time												
	kWh Usage			kWh Savings			kWh Usage and Savings Ratios				MMBtu Savings	
Year	kWh Usage: Commercial & Industrial Sector	kWh Usage: Residential Sector	Total Usage	kWh Savings: Commercial & Industrial Sector	kWh Savings: Residential Sector	Total Savings	Number of Households	Average Residential kWh Usage/ Household	Average Residential kWh Savings/ Household	Savings as % of Usage	MMBtu Savings: Commercial & Industrial Sector	MMBtu Savings: Residential Sector
2007	3,203,583	4,183,329	7,386,912	5,935	12,944	18,879	446	9,380	29	0.3%		
2008	3,176,166	4,043,162	7,219,328	54,479	14,724	69,203	446	9,065	33	0.4%		
2009	2,767,796	4,067,392	6,835,188	85,037	16,306	101,343	571	7,123	29	0.4%	504.9	48.889
2010	2,736,045	3,994,839	6,730,884	19	9,462	9,481	565	7,071	17	0.2%	0	3.45
2011	2,658,385	3,813,256	6,471,641	1,352	16,642	17,993	562	6,785	30	0.4%	-0.9	92.5
2012	2,621,978	3,860,685	6,482,663	55,459	44,288	99,747	547	7,058	81	1.1%	-11.8	-18.5
2013	2,681,076	4,074,366	6,755,442	26,616	35,448	62,063	572	7,123	62	0.9%	-18.2	-6.1
2014	2,388,212	4,059,994	6,448,206	1,393	67,415	68,809	565	7,186	119	1.7%	-0.94	-19.414

Source: Vermont Energy Atlas, 2014

Figure 12: Total Energy Use in Bolton



Community Profile for Review – 10/10/2016

Many Bolton residents and commercial properties rely on delivered fuels to heat buildings and run machines. In 2010, Bolton residents and businesses used delivered fuels, mostly heating oil, for 55% of their energy use. The majority of Bolton homes are heated with heating oil.

Delivered Fuels Used in Bolton (2010)			
	Residential (MMBTU)	Commercial (MMBTU)	Total (MMBTU)
Wood	1,932	-	1,932
Oil	27,616	4,473	32,089
Propane	3,201	1,814	5,015
Kerosene	3,570	60	3,631
All	36,319	6,347	42,666

Source: Chittenden County Climate Action Guide
Appendix B 2010 Greenhouse Gas Inventory

Home Heating Fuels Used in Bolton		
Fuel Type	% Households	# Households
Fuel oil, kerosene, etc.	28.8%	151
Wood	27.4%	144
Bottled, tank, or LP gas	26.3%	138
Utility gas	9.0%	47
Electricity	6.9%	36
Other fuel	1.7%	9
Coal or coke	0.0%	0
Solar energy	0.0%	0

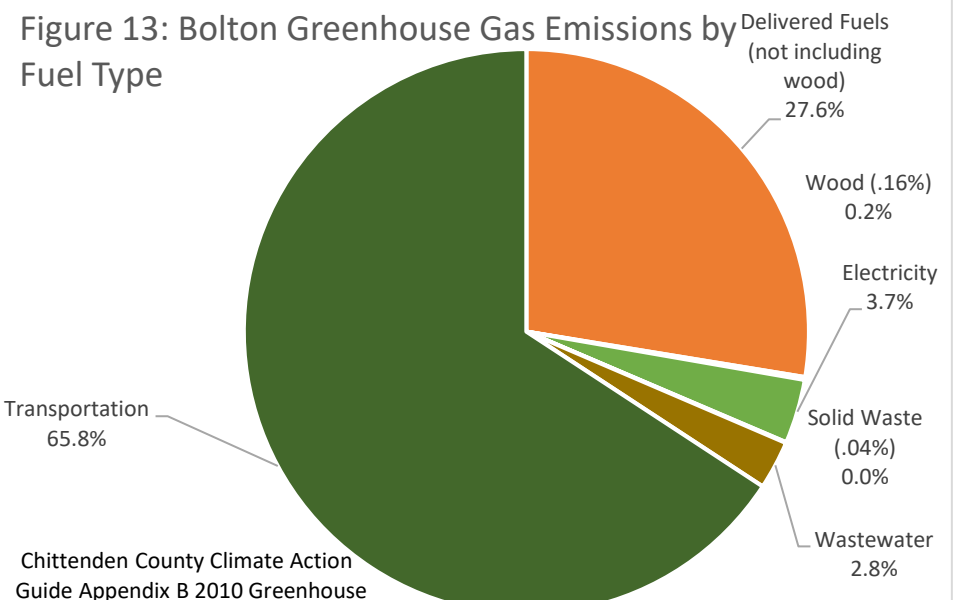
Source: American Community Survey 2009-2014 Estimates

Bolton is .76% of Chittenden County's population but accounts for 1% of the County's greenhouse gas emissions. The majority (65.8%) of greenhouse gas emissions in Bolton are from transportation.

Greenhouse Gas Emissions by Fuel Type and Sector		
	Residential	Commercial
Delivered	2,522	116
Wood	15	-
Electricity	225	127
Solid Waste	4	
Wastewater	266	
Transportation	6,291	
Total	9566	

Measurements are in millions of tons of carbon dioxide, except for wood which is metric tons of methane and nitrous oxide

Source: Chittenden County Climate Action Guide Appendix B 2010



Community Profile for Review – 10/10/2016

There are 14 renewable energy projects in Bolton as of 2016, mostly roof mounted solar projects. These projects have a combined capacity of 161.38 KW.

As part of the 2018 Regional Energy Plan, CCRPC calculated the number of acres of prime wind and prime solar development areas in each town. These are areas that are well-suited for energy production and do not have other restrictions on the development generation facilities. In Bolton, XX acres are prime solar generation areas and XX acres are prime wind generation areas. These lands have the capacity to produce XX MW of electricity.

Additionally, Bolton contains 3699.35 acres of land classified as woodland. While trees logged on these properties are used in a number of products, biomass production for home heating and electricity production could occur in these forests. There is no easy conversion from acres of forestland able to be logged to energy produced.

Economy

Employment Trends

Since 1990, the percentage of Bolton residents participating in the labor force has dropped. This means that the percentage of people who have any type of job, regardless of the number of hours or type of business, has decreased. This is consistent with county-wide, state-wide and national trends. As Bolton's population ages, it makes sense that more people would retire and leave the labor force.

Unemployment in Bolton has largely been the same or lower than the Vermont average since 1990, with exception of 2005, a year in which Bolton Valley Resort changed hands.

However, it should be noted that unemployment counts only those who do not have any job and are actively looking for work. More detailed data are not collected at the town level, but more detail can be measured at the statewide scale.

Renewable Energy Production		
	Number of Sites	Total Capacity
Ground Mounted Solar	3 residential	13.4 KW
Roof Mounted Solar Panels	9 residential	46.18 KW
Small Wind	1 commercial, 1 residential	101.8 KW*
*Reported capacity, but Bolton Valley Wind Turbine is currently not producing energy		
Source: Vermont Energy Dashboard, 2016		

Bolton Labor Force over Time						
	1990	1995	2000	2005	2010	2014
Population	971	981	971	1068	1123	1191
People in Labor Force	590	630	610	620	690	700
Bolton Labor Force Participation Rate	60.8%	64.2%	62.8%	58.1%	61.4%	58.8%
Unemployed People	10	10	20	20	20	20
Bolton Unemployment Rate	1.2%	0.8%	2.8%	3.7%	2.3%	2.3%
Chittenden County Unemployment Rate	4.0%	2.9%	2.3%	3.1%	4.8%	3.1%
Vermont Unemployment Rate	5.0%	4.3%	2.8%	3.5%	6.1%	4.1%
Vermont Labor Market Information: Covered Employment and Wages						

- In Vermont in January 2016, 8.2% of workers were “underutilized,” meaning that they were either:
 - Unemployed
 - Marginally attached (discouraged from actively searching for employment), or
 - Involuntarily part time (wanted a full time job but could not find one).

While these data points are not available for Bolton, it is important to remember that the simple measure of unemployment does not tell the whole economic story.

Employment by Sector

Measurement of employment in Bolton is based on two measures: covered employment and non-covered employment.

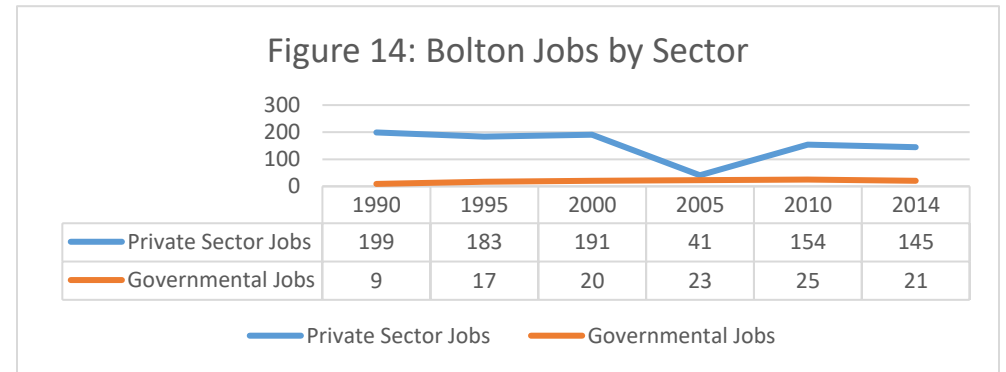
- Covered employment: Jobs held by employees who are eligible for unemployment insurance. This includes full time and part time jobs.
- Noncovered employment: Jobs held by employees who are not eligible for unemployment insurance. This includes those who own their own business and those who work on farms.

Covered employment has dropped in Bolton since 1990, falling from 199 total covered employees in Bolton in 1990 to 166 employees.

The largest change occurred in the number of establishments in the leisure and hospitality sector, which includes businesses related to skiing, lodging and other recreation. This sector fell from 7 establishments to 2 over the same time period (detailed chart on next page).

Noncovered employment is more difficult to measure. Because information is self-reported by those who own their own businesses, it is impossible to tell whether data collected by the State of Vermont or estimated by the American Community Survey is accurate.

Bolton's Economic Resources Committee estimates that there are approximately 60 businesses in Bolton, the vast majority of which are owned and run by local residents.



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Covered Employment in Bolton by Sector over Time																		
	2014			2010			2005			2000			1995			1990		
Sector	Establ.s	Total Empl.	Avg. Wages	Establ.s	Total Empl.	Avg. Wages	Establ.s	Total Empl.	Avg. Wages	Establ.s	Total Empl.	Avg. Wages	Establ.s	Total Empl.	Avg. Wages	Establ.s	Total Empl.	Avg. Wages
Total Covered - all ownerships	16	166	\$25,433	17	179	\$24,358	11	64	\$26,846	16	211	\$16,604	15	199	\$12,353	17	199	\$ 13,679
Private ownership	14	145	\$24,487	15	154	\$24,009	9	41	\$29,085	14	191	\$16,524	13	183	\$12,328	15	190	\$ 13,724
Goods Producing	3	c	c	3	c	c	0	N/A	N/A	0	N/A	N/A	0	N/A	N/A	0	N/A	N/A
Natural Resources and Mining supersector	1	c	c	1	c	c	0	N/A	N/A	0	N/A	N/A	0	N/A	N/A	0	N/A	N/A
Construction supersector	2	c	c	2	c	c	1	c	c	3	c	c	3	c	c	1	c	c
Trade, Transportation, and Utilities supersector	3	c	c	3	c	c	1	c	c	4	15	\$22,606	3	16	\$19,803	4	21	\$ 14,870
Education and Health Services supersector	0	N/A	N/A	1	c	c	1	c	c	0	N/A	N/A	0	N/A	N/A	0	N/A	N/A
Financial Activities supersector	0	N/A	N/A	4	14	c	1	c	c	1	c	c	0	N/A	N/A	0	N/A	N/A
Professional and Business Services supersector	4	21	\$57,991	1	c	c	3	c	c	1	c	c	0	N/A	N/A	1	c	c
Other services, except public administration supersector	0	N/A	N/A	0	N/A	N/A	0	N/A	N/A	1	c	c	2	c	c	3	c	c
Leisure and Hospitality supersector	2	c	c	3	c	c	2	c	c	4	151	\$14,834	6	156	\$11,451	7	151	\$ 13,618
Government total	2	21	\$31,974	2	25	\$26,023	2	23	\$22,907	2	20	\$17,352	2	17	\$12,629	7	151	\$ 13,618
Local government	2	21	\$31,974	2	25	\$26,023	2	23	\$22,907	2	20	\$17,352	2	17	\$12,629	2	9	\$ 12,682
Education and Health Services supersector	1	16	\$33,039	1	18	\$28,921	1	15	\$26,800	1	14	\$19,225	1	11	\$11,794	1	4	\$ 13,567
Public administration supersector	1	5	\$28,491	1	6	\$21,667	1	8	\$15,243	1	7	\$13,607	1	6	\$14,169	1	4	\$ 11,780
Source: Vermont Labor Market Information c = data suppressed for confidentiality																		

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Employment by Location

89% of Bolton residents who are employed jobs outside of Bolton, according to American Survey estimates.

According to these estimates, 237 people worked 2014, including 69 Bolton residents. The Vermont of Labor reports that there were 166 covered in Bolton in 2014. This means that there are an workers in Bolton who work in noncovered jobs, people who are self-employed or who work on

In the 2015 Grand List, there were 28 commercial Bolton, 2 farms and 19 woodland parcels.

Where Bolton Workers Commute From	
Town	# of Commuters
Burlington	80
Bolton	69
Essex	37
Colchester	12
Brandon	9
Huntington	8
Richford	5
Grand Isle	5
St. George	3
Tunbridge	3
Alburgh	2
Moretown	2
West Windsor	2
Total workers	237
Source: American Community Survey, Journey to Work Data, 2014	

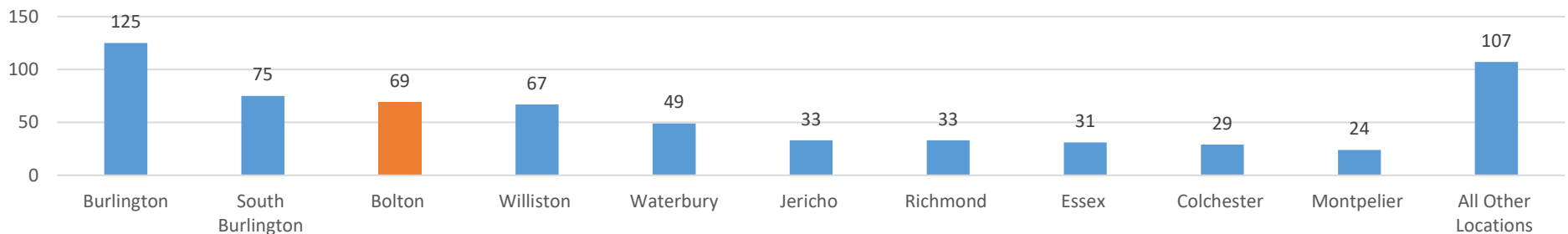
commute to
Community

in Bolton in
Department
employees
estimated 71
including
farms.

properties in

Where Bolton Workers Commute To	
Town	# of Commuters
Burlington	125
South Burlington	75
Bolton	69
Williston	67
Waterbury	49
Jericho	33
Richmond	33
Essex	31
Colchester	29
Montpelier	24
Shelburne	15
Berlin	14
Stowe	13
Underhill	10
Milton	9
Winooski	9
All others	37
Total workers	642
Working Outside Bolton	573
Source: American Community Survey, Journey to Work Data, 2014	

Figure 15: 2014 Place of Work for Bolton Residents



Source: American Community Survey, Journey to Work Data, 2014

Income, Wages and Poverty

Data on how much people earn is measured in several ways.

- Household Income: The total income earned from all sources by all members of a household.
- Wages: The amount earned by an individual for a specific job. In this case, it is measured based on where the job is located, not based on where the worker lives.

In Bolton, median and mean household income is higher than the average for Chittenden County. This means that the median and mean amounts earned by a household in Bolton is higher than the median and mean amounts earned by a household in the county as a whole. Measurements of household income do not change based on how many earners are present in a household.

Household Income, 2014		
	Bolton	Chittenden County
Median Household Income	\$75,568	\$63,243
Mean Household Income	\$83,278	\$83,432
Source: American Community Survey 2009-2014 Estimates		

However, the average wages for jobs located in Bolton are far lower than the average wages for jobs located in Chittenden County as a whole. This is possible because most Bolton residents work outside of Bolton.

Average wages over time, unadjusted						
	1990	1995	2000	2005	2010	2014
Bolton	\$13,679	\$12,353	\$16,604	\$26,846	\$24,358	\$25,433
Chittenden County	\$24,044	\$27,245	\$34,327	\$39,766	\$46,213	\$49,663
Average wages over time, adjusted to 2016 dollars						
	1990	1995	2000	2005	2010	2014
Bolton	\$24,796	\$19,204	\$22,844	\$32,567	\$26,465	\$25,452
Chittenden County	\$43,584	\$42,354	\$47,228	\$48,240	\$50,210	\$49,701
Source: Vermont Department of Labor Economic and Labor Market Information						

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Data on how many families are struggling to get by is difficult to measure, and definitions vary depending the agency involved.

- Poverty: An individual, family or household is considered to be in poverty if their total income is below annual thresholds set by the US Department of Health and Human Services.

The American Community Survey estimates that there are zero families or individuals in Bolton with income below the poverty line, but the statistic has a 5.1% margin of error.

- Low Income: An individual, family or household is considered to be low income if their total income is below 80% of the Area Median Income for the corresponding Metropolitan Statistical Area, as determined by the US Department of Housing and Urban Development.
- Very Low Income: An individual, family or household is considered to be very low income if their total income is below 50% of the Area Median Income for the corresponding Metropolitan Statistical Area, as determined by the US Department of Housing and Urban Development.

The US Department of Housing and Urban Development does not measure the number of households that are estimated to be low income or very low income.

What is the "Poverty Line?"	
A household or family with _____ individuals is considered to be in poverty	...if its annual income is below _____.
1	\$11,670
2	\$15,730
3	\$19,790
4	\$23,850
5	\$27,910
6	\$31,970
7	\$36,030
8	\$40,090

Source: US Department of Health and Human Services

Low Income and Very Low income Definitions		
A household or family with _____ individuals is considered to be...	...low income if its annual income is below _____ and	...very low income if its annual income is below _____.
1	\$46,000	\$29,400
2	\$52,600	\$33,600
3	\$59,150	\$37,800
4	\$65,700	\$42,000
5	\$71,000	\$45,400
6	\$76,250	\$48,750
7	\$81,500	\$52,100
8	\$86,750	\$55,450

Measurements based on Burlington-South Burlington Metropolitan Statistical Area

Source: US Department of Housing and Urban Development

Families and Individuals with Income is below the Poverty Line	
Percent	MOE
0.00%	+/-5.1

Source: American Community Survey 2009-2014 Estimates

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Another way to measure economic stress is through the number of people receiving various governmental benefits, although qualifying for governmental assistance is not necessarily linked directly to the definition of poverty.

- 3 Squares Vermont (also known as “food stamps”): Households qualify if they
 - Have a gross income equal to or less than 185% of the federal poverty level, regardless of other resources
 - Have members who are over 60 years old or have a disability, based on other resources
 - Receive the Vermont Earned Income Tax Credit and have children.

In 2015, 9.6% of Chittenden County residents were receiving 3 Squares Vermont Benefits, as reported by Hunger Free Vermont. In 2014, the American Community Survey estimated that 5.5% of Bolton residents were receiving 3 Squares Vermont benefits.

- Free and Reduced School Lunch: Children are eligible to receive free or reduced school lunch if
 - Their household has an income equal to or less than 185% of the federal poverty level
 - Their household receives 3 Squares Vermont or Reach Up (Temporary Assistance for Needy Families) benefits
 - They are otherwise identified as a foster child, homeless, or enrolled in Head Start or similar programs

In 2015, 28% of students who attend Smilie School were eligible for free or reduced lunch, according to the Vermont Department of Education.

Transportation

Bolton has 32.5 miles of local, state and federal roads, including over 5 miles of interstate highway passing through it. There are no exits or entrances to Interstate 89 in the town, but there is an emergency access gate for emergency management.

While the State and Federal Highways through Bolton are all paved, about half of the town's locally maintained roads are gravel.

Town highway mileage by class, Town of Bolton							
Class 1	Class 2	Class 3	Class 4	State Hwy	Fed Hwy	Interstate	Total 1, 2, 3, State Hwy
	8.58	12.01	0.3	11.906	5.669	5.636	32.496

Source: data derived from VTrans TransRDS GIS data – surface class and arc length

Town highway surface types			
Total Known	Total Unpaved	% Paved	% Unpaved
32.196	10.73	66.60%	33.30%

Source: data derived from VTrans TransRDS

Town highway mileage by surface type, Town of Bolton						
Paved	Gravel	Soil or Graded	Unimproved	Impassable	Unknown	Total
21.466	7.598	3.032	0.1	0	0.3	32.496

Source: Vtrans

With the exception of Interstate 89, most of the traffic in Bolton occurs along Route 2, east of the Notch Road. However, although Bolton Valley Road's annual average daily traffic is low when measured in the summer, daily traffic during the peak of the ski season is considerably higher. Winter business at Bolton Valley Resort brings a large increase in traffic when the roads are most difficult to maintain and navigate.

Average Annual Daily Traffic		
Location	AADT	Year Measured
Bolton Valley Road	460	2009
Honey Hollow Road	1020	2012
US 2 West of Notch	1070	2014
River Road	250	2009
Stage Road	460	2012
South River Road	220	2012
US 2 East of Notch	1800	2008
Source: CCRPC		

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Bolton's bridges, culverts and ditches are all important parts of the Town's transportation system.

Bridges in Bolton			
Type	Year Built	Deficiency	Bridge Features
Town Long	1919	No Deficiency	JOINER BROOK
State Long	1961	No Deficiency	I 89 OVER US2&JOINER BK
State Long	1961	No Deficiency	I 89 OVER US2&JOINER BK
State Long	1961	No Deficiency	JOINER BROOK
Town Long	1919	Functionally Defic	MILL BROOK
Town Long	1939	No Deficiency	PRESTON BROOK
Town Short	Unknown		Bolton Valley Access Rd
Town Short	Unknown		Duxbury Rd
Town Short	Unknown		Duxbury Rd
Town Short	Unknown		Honey Hollow Rd
Town Short	Unknown		Honey Hollow Rd
Source: VTrans			

Residents of Bolton are very car dependent, given the town's rural location. The American Community Survey estimates that over 87% of workers living in Bolton drove 10 or more miles to get to work, compared to 45% of Chittenden County residents. A median income household living in Bolton is estimated to drive 31,360 miles annually, compared to 26,368 miles annually for a median income household living in Chittenden County, according to the US Department of Housing and Urban Development. This leads to high transportation costs for Bolton residents.

Commuting Distances for Workers				
	Bolton Residents		Chittenden County Residents	
	Workers	Percentage	Workers	Percentage
Less than 10 miles	65	12.40%	54759	55.00%
10 to 24 miles	435	82.70%	22139	22.20%
25 to 50 miles	26	4.90%	12481	12.50%
Greater than 50 miles	0	0.00%	10244	10.30%
Source: US Census, American Community Survey OnTheMap 2014				

